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## Editorial

### The world in the post-Covid era: current issues of economics, politics, law

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The current stage of human development is characterized by instability associated with radical changes in world politics, economics, law and many other spheres of public life. The COVID-19 pandemic, declared by the World Health Organization in 2020, is complicating the situation, as measures to combat the spread of the disease, including lockdown, have negatively affected entire sectors of the world economy. The United Nations estimates that the global economy shrunk by 4.3 percent in 2020, two and a half times more than during the 2009 global financial crisis (UN News, 2021). According to economists Bartholomew and Diggle, the global economy by 2030 will still continue to lag behind the pre-pandemic trend by 3%, but this effect will be extremely uneven across countries (Diggle & Bartholomew, 2021). At the same time, the negative impact of the pandemic on the world economy has a variety of manifestations.

The corona crisis in almost all countries has led to a shock in the labor market. For example, in the United States, unemployment rose rapidly in March 2020, just after the pandemic began and by April 2020 it was well above its previous peak during and immediately after the Great Recession. This surge in unemployment was triggered by the introduction of quarantine restrictions, namely self-isolation, which meant the closure of many companies. Although the unemployment rate has been gradually declining since April, in December 2020, it remained almost twice as high as in February of the same

year (6.7% vs. 3.5%) (Cajner, et al., 2020). As for Ukraine, we have seen similar processes with the proclamation of a pandemic. Unemployment in Ukraine began to rise sharply in April, with the introduction of strict quarantine. If in March, there were 349 thousand officially registered unemployed in Ukraine (the real level is many times higher), in April this figure reached 457 thousand, in May – 511 thousand, and in June – 517 thousand people. And only in July this figure began to reduce – to 506 thousand, and in August – to 474 thousand. In general, since the beginning of quarantine in Ukraine, about 488 thousand people have received the status of unemployed (as of the end of August 2021), which is 67% more than in the same period of 2020. Hundreds of thousands of citizens became unemployed: both representatives of intellectual and manual labor.

How economies coped with labor market problems depended on the anti-crisis policies pursued by each country. For example, in the United States, unemployment payments have increased while European countries have taken the path of forced vacations and reduced working hours to maintain jobs and the ties that have formed in the labor market between workers and employers. In the long run, countries with higher unemployment rates are more likely to experience a longer decline in labor force participation, although there may be a more effective redistribution of labor force participation (Diggle & Bartholomew, 2021).



The negative effect of the corona crisis on the global labor market may be stronger than in other recessions, due to the huge number of school hours lost due to full quarantine or the introduction of remote education in schools and universities. This factor can cause irreparable damage to the accumulation of human capital. In addition, it will be more difficult for young employees to acquire the skills necessary for specific employers due to the spread of remote work.

Mass vaccination, which is taking place with varying degrees of success in most countries around the world, gives reason to hope for a gradual end to the pandemic crisis. However, the way out of the crisis in different countries will be uneven. Vaccination and accelerated digitalization have allowed some countries to embark on a path of rapid post-crisis recovery, while others are not yet out of the crisis. According to WEF (World Economic Forum) experts, the uneven exit from the crisis promises new problems – rising energy costs and a new round of the logistics crisis, and a surge in inflation (WEF, 2022).

Since the beginning of 2020, global commodity prices have increased by almost 30% and continue to rise, including due to energy shortages and supply chain disruptions. By the way, since the end of 2021, an energy crisis has arisen on the European continent, connected not with a pandemic, but with the geopolitical games. Thus, the cost of gas in a short period of time increased several times and reached almost 2,000 USD per cubic meter. Such an unprecedented increase in the price of energy has led to an inevitable rise in the cost of goods throughout Europe. Many manufacturers have suspended operations or gone bankrupt. In addition, the price of gas has also risen for households, which has become an unreasonable burden for many of them. Moreover, the cost of all utilities for the population of Europe, however, as in most other countries of the world, has increased significantly. All this contributes to the impoverishment of the population and the increase in social inequality.

Returning to the problem of inflation, it is worth noting that it looks like it will continue to rise around the world further on: it will be spurred on by logistical disruptions, combined with resurgent consumer demand and already more expensive goods. For example, in the United States, inflation has reached record highs over the past 40 years. Given that the US economy is the largest economy in the world, and the dollar

is the international reserve currency, if inflation continues to rise in the United States, a domino effect will work: it will accelerate in other countries. In mid-January 2022, the German Federal Statistical Office reported that inflation in Germany had reached its highest level in almost 30 years – prices for goods and services rose in December 2021 by an average of 5.3 percent compared to December 2020, the highest figure since 1992 (Delphinov, & Burdyga, 2022). Acceleration of inflation will force the central banks of developed and developing countries to raise interest rates, there will be a threat of defaults on debts. High prices and expensive debt will primarily affect low-income households, small and medium enterprises that are still trying to avoid bankruptcy. Government debt will also rise sharply. This is even though a large-scale increase in government spending during the pandemic has already turned into a sharp increase in global debt.

Excessive debt and rising costs of servicing it will make it increasingly difficult for many to cope with the economic impact of COVID-19 and finance social spending. As a result, social stratification and income inequality will increase more and more.

Growing income inequality could eventually trigger a “livelihood crisis.” According to WEF, this is a real threat to 97 countries of the world, including 16 G20 economies. And the result will be a further increase in the number of refugees. Experts believe, that forced economic migration is one of the key risks over the next decade. All this is likely to lead to geopolitical conflicts and internal social tensions.

Simultaneously, in addition to economic migration caused by natural causes, migration crises inspired by malicious actions of some countries periodically break out. In particular, in November 2021, the migration crisis broke out on the border between Poland, which is a member of the EU, and Belarus. Poland has accused Belarus of organizing an attack on Poland's eastern border, and has criticized Russia for leading a growing flow of migrants. The flow of migrants, according to Warsaw, should destabilize the European Union (Solonyina, 2021). Despite the reduction in greenhouse gas emissions during the pandemic, the problem of global warming is as acute as ever. Extreme weather events lead to water shortages, crop failures, and, as a result, rising food prices and supply disruptions in the world.

Experts point out that environmental risks are likely to cause the most damage on a global scale over the next decade. In 2021, the UN released a major report that incorporated the most important climate research of recent decades. The report's findings were sensational. First, it has finally been scientifically proven that human activities directly affect long-term changes in the environment and climate. Secondly, it turned out that even if all the promises of the countries under the Paris Agreement are fulfilled, the globe will still heat up by 2.7 degrees by the end of the century, which means imminent catastrophe. To avoid it, countries need to make new commitments today and significantly speed up emission reductions.

One of the events at which representatives of the world were to agree on ways to overcome the climate crisis and prevent a climate catastrophe was the UN Climate Summit, which took place over two weeks in November 2021. The conference's greatest achievements were intergovernmental agreements on forest protection and methane reduction. Leaders of more than 120 countries, which account for about 90 % of the world's forests, have pledged to stop their extinction by 2030. More than a hundred countries have also signed a commitment by the United States and the European Union to reduce methane emissions by 2030. Another 40 countries, including large consumers such as Poland, Vietnam, and Chile, have agreed to abandon its use. One of the achievements of the summit was the merger of 450 companies from 45 countries into the Glasgow Financial Alliance, which holds 40 % of the world's financial assets. Allied companies have declared a goal to completely reduce greenhouse gas emissions by 2050 at the latest. Also, about a hundred representatives of governments, cities, states, and large enterprises have signed a declaration on the transition to zero-emission cars by 2040, and 13 countries have promised to stop selling all trucks on fossil fuels in the same period. However, according to experts, the Glasgow Climate Pact can be called a monument of demagoguery and populism, but not a decisive document for the climate struggle. The world is still on the brink of disaster (Yalovy, 2021).

## Conclusions

Thus, it should be remarked that human civilization at the present stage of development faces several interrelated problems, each of which can lead to irreparable consequences. Each

subsequent mutation of the coronavirus, without proper counteraction to its spread; uncontrolled proliferation of nuclear weapons; lack of concerted action to reduce greenhouse gas emissions; continuation of misanthropic and adventurous international policies of some authoritarian regimes; uncontrolled use of minerals; unprofessional economic policy – any of these factors can lead to the end of civilization. Therefore, the main task of humanity today should be to unite efforts to effectively solve a whole range of complex problems. Will we cope with this task? We have to, for the sake of future generations.

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## Peculiarities of the mental state of student youth of Ukraine during quarantine restrictions

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#### Abstract

The work was intended to generalize both world statistics and our own experimental study aimed at detecting changes in mental states during the introduction of quarantine restrictions caused by the prevalence of COVID-19. During quarantine restrictions we observed a high level of anxiety in almost 45% of young respondents, severe and extreme depression from 2% to 7% of respondents, and moderate from 40% to 50% of respondents. Impressive are also rates of explicit suicidal ideation – 10-13%. Thus, the situation with the mental state of the younger generation requires the intervention of specialists, the development of programs that allow them to provide timely assistance under quarantine restrictions and maintain a normal psychological state of young people. Identifying the peculiarities of mental states of young people provides an opportunity to develop programs of both prevention of suicidal ideation and support for people who are experiencing uncontrolled anxiety or are depressed. It should be noted that quarantine restrictions require special

#### Анотація

Робота була спрямована на узагальнення, як світової статистики так і власного експериментального дослідження спрямованого на виявлення зміни психічних станів під час введення карантинних обмежень спричинених розповсюдженням COVID-19. Під час карантинних обмежень ми спостерігали високий рівень тривожності майже у 45% молодих респондентів, важку та екстремальну депресію від 2% до 7% респондентів і помірний від 40% до 50% респондентів. Вражають також показники явних суїцидальних думок – 10-13%. Таким чином, ситуація з психічним станом підростаючого покоління вимагає втручання фахівців, розробки програм, які дозволяють вчасно надавати допомогу в умовах карантину та підтримувати нормальний психологічний стан молоді. Виявлення особливостей психічних станів молодих людей надає можливість розробити програми із профілактики, як суїцидальних намірів так і програм із підтримки осіб які відчувають неконтрольовану тривоги, чи знаходяться у пригніченому стані. Слід відзначити, що

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approaches to the provision and implementation of such programs, meaning their transference from real life to cyberspace. Given that programs quality should not suffer, assistance should be provided by expert professionals at a high level.

**Key words:** suicide, suicidal ideation, anxiety, depression, youth, mental states, COVID-19.

## Introduction

The formation of Ukraine as an independent state in the early stages led to economic and political instability, which significantly affected the mental health of citizens, increased the number of acute mental illnesses and increased suicide rates, which are becoming epidemic every year. This determined the need for urgent precautionary measures, especially the creation of suicide prevention programs and the development of prophylactic courses for various types of mental illness. Nowadays a large number of modern scientists in various fields of science are studying this problem, namely: Aymedov K.V., Budonnyi P.V., Maruta N. A., Markova M. V., Kozhyna H.M., Aliieva T. A., Yuryeva L. M., Abdryakhimova T. B., Pshuk N. G., Skrypnikov A. M., Peretyatko L.G., Teslenko M.M., 2018; Romaniv O. P., Pohoriliak K. M., Jamerson J., Mitchell J. and others (Aymedov, 2015; Budonnyi, 2019; Maruta, Markova, Kozhyna, Aliieva, Yuryeva, Abdryakhimova, Pshuk & Skrypnikov, 2021; Peretyatko, Teslenko, 2018; Romaniv, Pohoriliak, 2014; Jamerson, & Mitchell, 2020)

Despite the fact that in modern domestic psychiatry and suicidology the problems of understanding the nature and meaning of suicidal behavior have taken one of the leading places, it is still could be said that there are a significant number of “white” spots in its study. These include the search for innovative technologies in the field of predicting suicidal behavior of student youth and the development of effective plan to help young people to avert possible self-aggressive actions. The issue of maintaining the mental health of young people remains unresolved.

Clearly marked social and psychological orders to solve the problem cannot yet satisfy the psychological care services organized in higher education institutions of Ukraine in recent years. As most educational institutions do not have such services, the positions of psychologists and social educators have not been included in the staff. In

картинні обмеження потребують особливих підходів надання та впровадження таких програм, із реального життя вони повинні перейти у кіберпростір, при цьому їх якість не повинна страждати, допомога повинна надаватись висококваліфікованими фахівцями на високому професійному рівні.

**Ключові слова:** суїцид, суїцидальні прояви, тривога, депресія, молодь, психічні стани, COVID-19.

the cycle of humanities subjects, the topic of “Suicide as self-destructive human behavior” is not presented at a sufficient level. It is also absent from the list of extra classes in most humanities curricula. Little attention is paid to the formation of guidelines for a healthy lifestyle, which has its result in almost no information on obtaining qualified psychological care for young people.

The analysis reveals the main contradiction – the one between the objective need for psychological, psychiatric and psychological and pedagogical assistance to students prone to anxiety, depression and suicidal behavior, and the lack of theoretical and practical development of the problem of preventing psychiatric illness and suicidal behavior within youth environment.

The aim of the study is to establish the peculiarities of the mental states of young people during the implementation of quarantine restrictions associated with COVID-19.

The object of research is the mental state of student youth.

## Methodology

contain theoretical analysis and generalization of literature on research issue, psychodiagnostics, and mathematical and statistical methods.

Theoretical method includes theoretical and methodological analysis, generalization of medical and psychological achievements on the topic of research, which was aimed at reflecting the current state of the study of mental states among student youth.

The psychodiagnostic complex included: Hospital Anxiety and Depression Scale (HARS/HADS) (Rajgorodskij, 2001); Beck's Depression Inventory (adolescent version) (Beck, 1961); Test: suicidal tendencies (Rajgorodskij, 2001).

Firstly, “Hospital Anxiety and Depression Scale” (HARS/HADS) questionnaire was used to identify and assess the severity of depression and anxiety among respondents.

The second questionnaire, “Beck Depression Inventory” (adolescent version), was used because it allows to identify a limited set of the most relevant and fundamentally significant symptoms of depression, suicidal ideation and complaints, which are especially common in adolescent respondents.

The third method, “Test: suicidal tendencies”, allowed us to determine how resistant the respondent is to internal triggers to commit suicide for one reason or another.

**The sample** consisted of people aged 17 to 21, in the number of 360 people, which in the study is considered as 100% of the sample.

#### **Analysis of recent research and publications**

According to the report of the World Health Organization (WHO) published on September 9, 2019, the suicide rate is the highest in wealthy countries and is 11.5 per 100 thousand population, in contrast to 2016 10.5 per 100 thousand population. Besides, WHO analysts note that suicide is the second most common cause of death among young people aged 15 to 29. Only car accidents take more young lives (Saakov, 2019). Let's look at one of the most accurate statistics in the world – suicide statistics in Japan, where reports are compiled monthly. Even here during the COVID-19 pandemic these statistics were more alarming than before. In 2020, for the first time in 11 years, the number of suicides in Japan increased. At the same time, although the number of suicides among men decreased slightly, the growth among women was almost 15%. In October alone, the suicide rate among women in Japan jumped by more than 70% compared to the same month last year (Rupert Wingfield-Hayes, 2021). As stated in a study by Harvard Medical School, currently 4.4% of Americans aged 18 to 34 suffer from mental disorders with the main symptoms of “persistent depression, deep sadness or despair” (Zhitkova, 2020).

In Ukraine probably the only statistical study on the impact of the pandemic of coronavirus infection on the psychological state of people is a poll of the social group “Rating”. Thus, in the first two months of quarantine, the rates of depression in Ukraine increased by 3%, anxiety – by 4%, fatigue – by 3%, insomnia – also by 3%.

It is noted that 1627 respondents aged 18 and older took part in the survey (Ukraine Rating Group, 2020; Frankova, 2020).

Analyzing recent studies, it should be noted that experts are increasingly assuming that the effects of the COVID-19 pandemic intensify the risk of suicide: isolation, fears, growing anxiety, economic risks, depression, along with alcohol and drug use rising (Kurok, Lucenko, Povstyn, & Lutsenko, 2020; Martsenkovskiy, & Martsenkovsky, 2020). Moreover, the pandemic has affected family relationships, with couples more likely to be divorced and families more likely to be aggressive including as partners as parents and children. Restrictions in direct communication during adolescence cause a deterioration in mood, resulting in depression and unexpressed aggression about the inability to satisfy the need leading to irritability, sadness, grief. All this requires close attention and the construction of appropriate support and prevention programs.

Researchers of various branches of science have been studying the psycho-emotional states of adolescents and young people in recent years. Among physicians it is possible to mention: Aymedov K.V., Budonnyi P.V., Kozhyna H. M., Maruta N.O. and others; among psychologists: Yurieva L.M., Bardenstein L.M., Aleshkina H.A., Slavhorodsky Ia.M., Krupkin A.H.; Pilyagin G. Ya., Hlebova N., Afanasieva L., Bukrieva I., Semykin M., Orlov A., Khoroshukha M., Ivashchenko S., Prysiazhniuk S., Oleniev. D., Biletska V., Tymchyk O., Garashchenko L. and others.

(Aymedov, 2015; Bardenstein, Aleshkina, Slavgorodsky, & Krupkin, 2011; Budonnyi, 2019; Hlebova, Afanasieva, Bukrieva, Semikin, & Orlov, 2021; Khoroshukha, Ivashchenko, Prysiazhniuk, Oleniev, Biletska, Tymchyk, & Harashchenko, 2021; Maruta, Markova, Kozhyna, Aliieva, Yuryeva, Abdryakhimova, Pshuk, & Skrypnikov, 2021; Yurieva, 2015; Sementsul, & Pilyagin, 2014)

In studying the scientific literature on suicidal behavior, attention is drawn to the diversity, fragmentation and contradiction of the data, due to the complexity and multifaceted nature of this phenomenon. Suicidal behavior, unlike other medical phenomena, has philosophical, social, historical, religious, cultural, psychological, moral and legal aspects. Unfortunately, the problem of suicides has always existed, but to date, neither in the world nor in Ukraine, there are no effective and high-quality means of

preventing it. Therefore, this problem requires urgent comprehensive and prophylactic measures, a combination of sociologists, teachers, social workers, doctors, psychologists, psychiatrists, lawyers' efforts. This problem intersects with many other medical, social and legal issues, such as euthanasia, terrorism with suicide terrorists, crimes against person, risky behavior and more.

## Results and Discussion

The COVID-19 pandemic has led to the fact that almost all states have introduced quarantine measures to block the spread of the infection, differentiating states at the level depending on the number of diseased and the rate of spread speed. In the first wave that swept the world and took many lives, the inability to predict, the instability of the situation led to the dissemination of increased anxiety, worry, fear among people. Prolonged restrictions

unbalanced mental states, as evidenced by the number of outbreaks of mental illness and the number of applications for psychological help. During the remote learning, there was a deterioration in the emotional state of students, anxiety, reduced efficiency, gloomy mood. Consequently, to determine the characteristics of the mental state of young people during the implementation of quarantine restrictions associated with COVID-19, we decided to investigate the problem in more detail and conducted several psychodiagnostic analysis: March-April 2020 and October-November 2021. The online research involved 360 people who studied in higher education institutions in Odessa, aged 17 to 21, including 223 females and 137 males.

Based on the results of the survey of respondents on the selected methods, an analysis of the data has been made and is provided in the tables (1 - 3)

**Table 1.**

*Anxiety level according to the method "Hospital Anxiety and Depression Scale"*

Survey period	gender	normal	borderline abnormal	abnormal
Spring, 2020	female	18.83	34.53	46.64
	male	19.71	37.96	42.34
Autumn, 2021	female	19.28	36.32	44.39
	male	18.98	40.15	40.88

As stated in the results of the study of anxiety, it was found that among the respondents, both in the first and in the second survey, the indicators of borderline abnormal and abnormal anxiety prevail and are observed in almost 70% of respondents. It is alarming that more than 40% of young people have a high degree of anxiety during quarantine restrictions, and more than 30% of respondents have an edge level of anxiety. It should also be noted that there is a higher rate of abnormal anxiety among women than among men, so in the first wave the difference is 4.50%, and in the second 3.52%. When considering the obtained data on the borderline abnormal degree of anxiety, there are

also higher rates among women than among men, the difference is in the first wave of 3.43%, and in the second 3.82%. All this indicates that young women are more prone to anxiety in quarantine restrictions than men. That is, with limited real communication, with daily negative information about the level of morbidity, unstable and unclear situation, women tend to be more anxious than men.

Thereafter, we analyzed the predisposition to depressive states in conformity with the methods of "Hospital Anxiety and Depression Scale" and "Beck Depression Inventory" (Tables 2, 3).

**Table 2.**

*Depression level according to the method "Hospital Anxiety and Depression Scale"*

Survey period	gender	normal	borderline abnormal	abnormal
Spring, 2020	female	50.22	43.50	6.28
	male	33.58	54.01	12.41
Autumn, 2021	female	50.67	42.15	7.17
	male	31.39	56.93	11.68

Considering the results of the “Hospital Anxiety and Depression Scale” it is possible to claim that among young people during quarantine restrictions there is an abnormal degree of depression at almost 10% and borderline abnormal of more than 40%, indicating a negative mental state of young people. Furthermore, among young men the abnormal level of depression in the first wave by 6.13% and in the second by 4.50% higher than among girls.

The same trend is observed when comparing the borderline abnormal level of depression, but the difference is in the first wave of 10.52%, and in the second – 14.78%. All this indicates the need to develop programs that will be aimed at stabilizing the mental states of young people, learning to control their emotional states, self-stabilization of their mental state in conditions of limited communication and movement.

**Table 3.**  
*Depression level according to the method of “Beck Depression Inventory”*

Survey per	gender	Absence of depressive symptoms	Mild depression (sub-depression)	Moderate depression	Severe depression	Extreme depression
Spring, 2020	female	24.22	27.80	41.70	3.59	2.69
	male	16.06	20.44	51.09	7.30	5.11
Autumn, 2021	female	24.66	28.25	39.91	4.93	2.24
	male	14.60	21.90	51.82	7.30	4.38

Analyzing the results, it is possible to assume that almost 5% of young people have extreme depression, that is they need help of psychiatrists, and about 10% of young people had severe depression during quarantine. The level of moderate depression during quarantine is impressive, as almost 40% of girls and 51% of boys show a level of moderate depression, which indicates the need to involve specialists to provide them with the necessary psychological assistance. Finally, during the quarantine period, sub-depression was observed in almost 30% of

boys and 20% of girls. In consequence, only 15% of boys and 25% of girls have no manifestations of depression during the quarantine period.

The analysis of the obtained data proved that boys are more inclined to depression than girls, and girls are more prone to anxiety than boys. Since only 15-20% of young people were found not showing manifestations of depression and anxiety, it was decided to study the tendency to suicidal ideation (Table 4).

**Table 4.**  
*The results of the study of respondents’ suicidal ideation.*

Survey period	gender	No suicidal ideation	Possible in critical situations	Presence of suicidal ideation	Explicit suicidal ideation
Spring, 2020	female	8.97	33.63	44.39	13.90
	male	13.14	26.28	48.91	11.68
Autumn, 2021	female	10.31	34.08	43.50	12.11
	male	14.60	27.74	47.45	10.22

When analyzing the results of the psychodiagnostic study of suicidal tendencies, it can be noted that almost 50% of male are prone to suicide, and among female almost 45% of respondents show suicidal tendencies. Almost 30% of respondents can probably commit suicide, where girls are more prone to such attempts than boys: in the first wave the difference is 7.35%, and in the second wave – 6.34%. About 10% of respondents have an explicit tendency to commit suicide. It should noteworthy that in the first wave the rates of

presence and severity of suicidal tendencies were higher than in the second.

On the whole, adolescence is characterized by unstable psychological states, including the inclination to commit suicide. It should be pointed out that introducing quarantine restrictions, the information field was oversaturated with information about the negative effects of COVID-19, the daily number of diseases and deaths. Not everyone is able to avoid such pressure and negative information. Isolation, in addition, further immerses the

individual in a negative perception of the environment. Sociological research has repeatedly emphasized that human is a social being and it is no longer a new statement that a person endures any difficult situation easier in a group than alone. What is more, the insertion of quarantine conditions without a clear deadline with constant reports of destructive consequences of COVID-19 creates setting for constant stress, the state is mostly depressed, the number of fears and anxieties increases. As a result, it is clear now that being alone a person loses their mental health. Therefore, it is not surprising that during quarantine restrictions we observe a high level of anxiety in almost 45% of young respondents, severe and extreme depression from 2% to 7% of respondents, and moderate from 40% to 50% of respondents. Impressive are also rates of explicit suicidal ideation – 10-13%. Thus, the situation with the mental state of the younger generation requires the intervention of specialists, the development of programs that would allow to provide timely assistance within quarantine restrictions and maintain a normal psychological state of youth.

### Conclusions

Adolescence is an important stage in the formation of personality and is very difficult in psychological terms. The instability of the psychological processes of young people considered as being normal is exacerbated in the current period by a very difficult economic, social, political and epidemiological situation. During the insertion of quarantine restrictions, we conducted a psychodiagnostic survey of student youth: the first survey was conducted in the spring of 2020, and the second one in the autumn of 2021. According to the results of the study, the negative manifestations of anxiety, depression, suicidal ideation were higher than with the second wave of quarantine restrictions in 2021, which may indicate adaptation to negative social and epidemiological living conditions. High rates were established for scales such as abnormal anxiety (average 45% of respondents), sub-depression (20% to 28% of respondents), and moderate depression (38% to 51% of respondents). Others with high rates were possibility and presence of suicidal ideation having over 30% (female in the first wave – 33.63% and 44.39% of respondents, respectively; male – 26.28% and 48.91% of respondents, respectively, while during the second period of quarantine restriction, female – 34.08% and 43.50% of respondents, respectively, and male – 27.74% and 47.45% of respondents, respectively). Observing such data, it is

necessary to pay attention to the fact that the mental and psychological state of student youth is in dire need of qualified intervention, both for psychocorrection and for the prevention of unstable mental states. Therefore, it is necessary to pay attention to the immediate development of state social programs to support and stabilize the mental state of young people, taking into account trends and limitations in direct interpersonal communication in real life. Additionally, programs could be developed in cyberspace for easy access to psychological support at any time, that is social programs should be organized in the framework of.

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## Imposition of disciplinary actions against the employees of Pre-trial detention centres (Germany, Poland, Ukraine)

### Накладення дисциплінарних стягнень на працівників слідчих ізоляторів (Німеччина, Польща, Україна)

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#### Abstract

The purpose of this study is the comprehensive analysis of imposition of disciplinary actions against employees of pre-trial detention centres using the example of Germany, Poland and Ukraine. The study used the method of sociological analysis, systemic-structural approach and comparative, logical-semantic, Aristotelian and dialectical methods of research. The research has proven the necessity to complement the laws and regulations in Poland and to differentiate the practice of imposition of disciplinary actions against employees of pre-trial detention centres from the generic practice in Germany and Ukraine. In addition, in Ukraine there is a need to designate a body that could be responsible for analysing the practice of imposition of disciplinary actions against employees of pre-trial detention centres. Further compliance with these recommendations will reveal how effective the legislative control is and how effective the work of employees of pre-trial detention centres is in relation to the application

#### Анотація

Метою даного дослідження є комплексний аналіз накладення дисциплінарних стягнень на працівників слідчих ізоляторів на прикладі Німеччини, Польщі та України. У дослідженні використано метод соціологічного аналізу, системно-структурний підхід та порівняльний, логіко-семантичний, аристотелівський та діалектичний методи дослідження. Дослідженням доведено необхідність доповнити законодавчі акти Польщі та відмежувати практику накладення дисциплінарних стягнень на працівників слідчих ізоляторів від загальної практики в Німеччині та Україні. Крім того, в Україні є потреба у визначенні органу, який би відповідав за аналіз практики накладення дисциплінарних стягнень на працівників слідчих ізоляторів. Подальше виконання цих рекомендацій дозволить виявити, наскільки ефективним є законодавчий контроль та наскільки ефективною є робота працівників

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of disciplinary actions against employees of pre-trial detention centres and will allow to improve their work through the analysis of statistics on the application of disciplinary actions against employees of pre-trial detention centres.

**Keywords:** disciplinary responsibility; pretrial detention centre; liability; violation; employees of pre-trial detention centres.

## Introduction

Relevance of the research topic: Imposition of disciplinary actions against employees of pre-trial detention centres, first of all, makes it possible to prevent and stop violations of the rights of temporarily detained persons by the staff of pre-trial detention centres.

Statistics and analytical data on this practice are explicitly enshrined in law, which gives some guarantees to the staff of pre-trial detention centres regarding justified application of disciplinary actions in general.

Imposition of disciplinary actions against the staff of pre-trial detention centres depends on a number of factors, enshrined in legislation and is different in three countries under study because of different legal and regulatory frameworks.

A comprehensive analysis of research, conducted by European and Ukrainian scientists, shows that the practice of imposition of disciplinary actions against employees of pre-trial detention centres is debatable.

As of 2021, Ukrainian legislation contains norms on the imposition of disciplinary actions against employees of pre-trial detention centres, but the study of the practice itself has not been carried out separately. Moreover, there is no legislative organ in Ukraine responsible for the imposition of disciplinary actions against employees of pre-trial detention centres. However, there are some problems in the practice of imposition of disciplinary actions against the employees of pre-trial detention centres in other countries as well.

The object of the study is social relations that shaped up in the process of imposition of disciplinary actions against employees of pre-trial detention centres.

The subject of the study is the practice of imposition of disciplinary actions against the

СІЗО щодо застосування дисциплінарних стягнень до працівників СІЗО та дозволить покращити їх роботу. шляхом аналізу статистичних даних щодо застосування дисциплінарних стягнень до працівників слідчих ізоляторів.

**Ключові слова:** дисциплінарна відповідальність; слідчий ізолятор; відповідальність; порушення; працівники слідчих ізоляторів.

employees of pre-trial detention centres and the conditions of its statutory regulation.

The purpose of this study is the comprehensive analysis of the practice of imposition of disciplinary actions against the employees of pre-trial detention centres in Germany, Poland and Ukraine. Having identified the main statutory provisions on the subject, we have considered this practice and determined whether it is effective to impose disciplinary actions against the employees of pre-trial detention centres.

Thus, the main objectives of the study include:

- to study the issue of awareness of employees of pre-trial detention centres of the imposition of disciplinary actions;
- to determine the effectiveness of the laws and regulations on the practical application of disciplinary actions against the employees of pre-trial detention centres;
- to analyse statistical and analytical information on the application of disciplinary actions against the employees of pre-trial detention centres.

## Literature Review

The imposition of disciplinary actions against employees of pre-trial detention centres is regulated by a number of laws and regulations that determine the factors in relation to which analytical and statistical research on this issue is carried out.

This article analyses scientific research of the imposition of disciplinary actions against employees of pre-trial detention centres in Germany, Poland and Ukraine. Thus, it should be noted that in Germany the results of the practice are annually summarized in a report containing disciplinary statistics, which includes the imposition of disciplinary actions against employees of pre-trial detention centres. In addition, we have investigated theoretical

research on this issue, which made it possible to investigate the main legal framework regulating disciplinary actions against employees of pre-trial detention centres – the Federal Disciplinary Act of Germany (Federal Ministry of Justice and Consumer Protection of Germany, 2001; Federal Ministry of the Interior, Building and Community of Germany, 2020, 2021).

The basis of the study of imposition of disciplinary actions against employees of pre-trial detention centres was the Information report as of 2020 on the inspection results of detainees' security, based on which we were able to conduct a comprehensive study of regulation and imposition of disciplinary actions against employees of pre-trial detention centres (Supreme Audit Office of Poland, 2020).

Within the framework of the study, we have analysed the activities of the State Penitentiary Service of Ukraine (PRO (The Effective Regulation Platform), 2021) and the basic laws and regulations that should comprehensively regulate this issue, including the Constitution of Ukraine (The Constitution of Ukraine, 2020), the Criminal Procedure Code of Ukraine (The Code of Criminal Procedure № 4651-VI, 2022), the Laws of Ukraine "On Prosecution" (Law № 1697-VII, 2021), "On Pre-trial Detention" (Law № 3352-XII, 2021), "On Civil Service" (Law № 889-VIII, 2022), "On the High Council of Justice" (Law № 1798-VIII, 2021), Internal regulations of pre-trial detention centres of the State Criminal-Executive Service of Ukraine (Order № 1769/5, 2021). We also took into account the Response by the Government of Ukraine to the report of the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment during its special visit to Ukraine from 4 to 13 August 2020 (Council of Europe, 2020). That is, each of the above-cited sources helped to reveal in parts the factors influencing the formation of the practice of imposition of disciplinary actions against employees of pre-trial detention centres.

Global peculiarities of incarceration and imprisonment were analysed in the article in order to reveal the problems of imposition of disciplinary actions against employees of pre-trial detention centres. In addition, the study took into account the differences between disciplinary and professional authority (Betriebsdialog, n. d.; Thailand Institute of Justice, 2021) and international standards for practical application of disciplinary actions against employees of pre-trial detention centres, which contained the analysis of this practice in Germany, Poland and

Ukraine (Organization for Security and Co-Operation in Europe, 2018).

## Methods and Materials

Comprehensive study of imposition of disciplinary actions against employees of pre-trial detention centres in Germany, Poland and Ukraine showed that these countries regulate and impose disciplinary actions in different ways, which is directly reflected in the statistical and analytical data, which provide an opportunity to better assess the importance of this issue.

The study is based on the in-depth analysis of the national legislative framework of Germany, Poland and Ukraine, which reflects a certain balance between the imposition of disciplinary actions against employees of pre-trial detention centres and all possible norms focusing on statutory regulation of disciplinary actions against the employees of pre-trial detention centres. Despite some similarities in the imposition of disciplinary actions against employees of pre-trial detention centres in Germany, Poland and Ukraine, the level of their regulation and effectiveness, reflected in statistical and analytical data, varies considerably.

This analysis was formed on the basis of the relevant official reports, Internet resources of the studied countries and current legal and regulatory framework, so it conforms fully to the comprehensive assessment of the imposition of disciplinary actions against employees of pre-trial detention centres in general.

The study used the methods of sociological analysis for generalization of the international practice in the imposition of disciplinary actions against employees of pre-trial detention centres, as well as for the analysis of empirical, statistical and analytical information, which further made it possible to compare the imposition of disciplinary actions against employees of pre-trial detention centres on the example of Germany, Poland, Ukraine.

Systemic-structural approach and comparative method allowed to study the statutory regulation of imposition of disciplinary actions against employees of pre-trial detention centres and to compare statistical and analytical data.

Logical-semantic and Aristotelian methods of research were used in the study of the effectiveness of legal regulation of the imposition of disciplinary actions against

employees of pre-trial detention centres. Based on them, we offered definitions within the scope of the study. The dialectical method was used in considering the problems of research and in determining the main directions in the development of regulation of disciplinary actions against employees of pre-trial detention centres.

The theoretical background of the study were the scientific works of Ukrainian and foreign scientists, the legal framework of foreign countries, statistical and analytical information on this issue.

## Results

The imposition of disciplinary actions against employees of pre-trial detention centres is a topical issue. Therefore, we have investigated how the general provisions on the regulation of disciplinary actions against employees of pre-trial detention centres affect the statistics of annual reports, as well as determined their regulatory scope, analysed analytical data on this issue on the example of Germany, Poland and Ukraine.

Thus, in Germany, while the responsibilities of the civil service are set out in the civil service laws of the federal and state governments, the disciplinary law regulates the consequences of misconduct in office and the procedure for their application. The Federal Disciplinary Act refers to federal civil agents, including employees of pre-trial detention centres (Federal Ministry of Justice and Consumer Protection of Germany, 2001).

As soon as any civil servant violates his/her duties, he/she commits an offence, for which disciplinary actions may be imposed. If there is actual evidence of such an offence, the superior, responsible for a particular employee, performing his or her duties in a pre-trial detention centre, is required to initiate disciplinary proceedings and clear up the matter. Upon completion of the disciplinary inquiry, he/she must decide whether the disciplinary proceedings are terminated or whether some disciplinary actions should be taken.

The Federal Disciplinary Act of Germany provides for five types of disciplinary actions, depending on the offense severity, committed by an employee of a pre-trial detention centre:

- written reprimand;
- penalty;
- downgrading or redundancy;

- official salary downgrade;
- pension cuts by means of the so-called disciplinary order (Federal Ministry of Justice and Consumer Protection of Germany, 2001).

Notwithstanding the strictness of the law on the imposition of disciplinary penalties and disciplinary actions against the employees of pre-trial detention centres, a disciplinary order that is usually passed as an administrative act may be contested by means of legal remedies, a lawsuit and, under certain conditions, through an appeal to court and retrial.

A manager who is subject to disciplinary liability for other employees is called a superior. The disciplinary manager cares about the development of the individual employee and is responsible for labour matters and industrial law. This includes employee performance review, employee recognition, salary issues, approval of vacation request letters or employment applications, dismissals, warnings, measures, taken in accordance with labour legislation and other contract agreements. One manager should carry out disciplinary management of one employee (Betriebsdialog, n. d).

That is, if the employer judges it expedient to downgrade the employee, dismiss him/her from the civil service or cut his/her pension, he cannot take these measures on his own. To do this, he must submit the so-called disciplinary act on such a penalty to the administrative court of competent jurisdiction. His decision can be challenged in a judicial procedure, and, under certain conditions, the case can be reviewed. Provisions of State disciplinary laws are partly different.

Depending on the circumstances of the individual case, it may become necessary to prohibit further performance of official duties to the employee of a pre-trial detention centre, who is subject to disciplinary actions until the final completion of disciplinary proceedings. The employees of pre-trial detention centres can be subjected to disciplinary proceedings, temporary ban to conduct official business and even temporary discharge according to both disciplinary legislation (Disciplinary Law) and general legislation on civil service.

Temporary discharge can be applied primarily if, after predictive appraisal of the case, disciplinary proceedings are likely to result into dismissal from the civil service. In this case, the part of a

monthly salary not exceeding 50% may also be held back depending on financial circumstances.

Thus, having a complete understanding of how the imposition of disciplinary actions is regulated, we can talk about analytical and statistical data on this issue. In 2020, 766 cases of misconduct in office were heard, including the cases concerning the employees of pre-trial detention centres. However, it should be noted that this includes cases, the hearing of which continued for several years and lasted until 2020. The average time for legal proceedings was 13 months, and in the case of a lawsuit 30 months.

The number of investigated disciplinary infractions by the employees of pre-trial detention centres in 2020 increased compared to the previous years. To understand what it's in reference to, we need to analyse the following data.

Thus, civil servants on probation or the ones, suspended from work, may in certain cases avoid disciplinary actions. For example, if a civil servant committed misconduct in office during probation or suspension, it is necessary to determine whether the civil servant is dismissed in accordance with the provisions of the legislation on civil service.

The employer makes a decision on dismissal due to the seriousness of the offense, but he/she can also give a reprimand, issue a warning, lay a complaint according to § 6 of the Federal Disciplinary Act of Germany. They are not a means of disciplinary actions, but punishment for

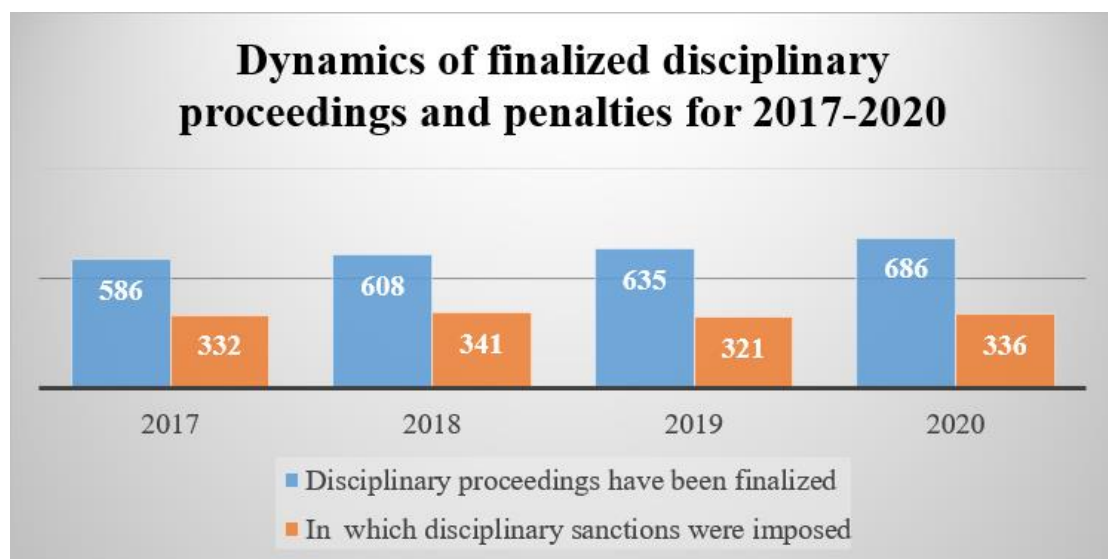
misconduct exceeding the disciplinary threshold for violating a disciplinary action is not provided by the Federal Disciplinary Act of Germany (Federal Ministry of Justice and Consumer Protection of Germany, 2001).

In 686 cases, there was enough convincing evidence for the announcement of suspicion of misconduct in office to the employees of pre-trial detention centres, where substantiated disciplinary proceedings were instituted under § 17 of the Federal Disciplinary Act of Germany (Federal Ministry of Justice and Consumer Protection of Germany, 2001).

According to § 13 of the Federal Disciplinary Act of Germany, the decision to impose a disciplinary sanction is made on the basis of a mandatory hearing of the case. The disciplinary action depends on the gravity of the offence, personal qualities of the civil servant and the degree of confidence in the civil servant-employee of the pre-trial detention centre (Federal Ministry of Justice and Consumer Protection of Germany, 2001).

In 2020, disciplinary sanctions were imposed in 336 proceedings, 35 of them by a court decision (Federal Ministry of the Interior, Building and Community of Germany, 2021).

Thus, based on the analysis of the imposition of disciplinary actions against employees of pre-trial detention centres, it can be said that in comparison with previous years, the following situation can be traced (see Figure 1).



**Figure 1.** Dynamics of finalized proceedings and penalties for 2017-2020

There is no separate statistics on the imposition of disciplinary actions against employees of pre-trial detention centres in Germany, but we have found some statistics and analytical data including the regulation of this issue in relation to the employees of pre-trial detention centres (Federal Ministry of the Interior, Building and Community of Germany, 2020).

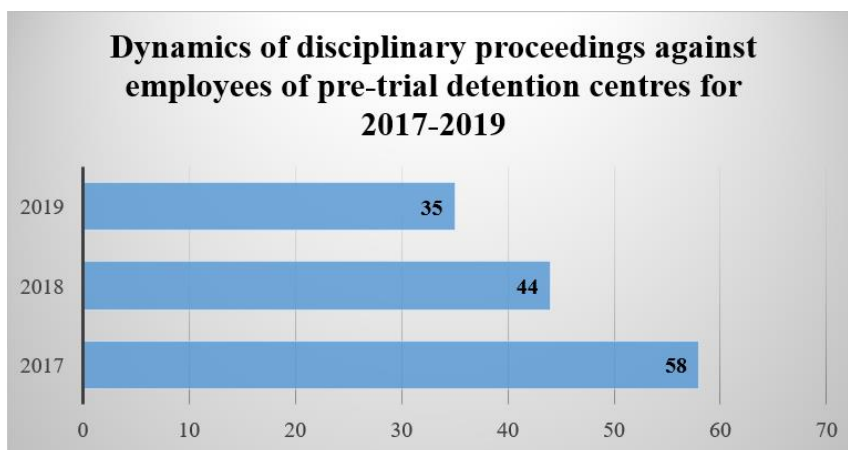
Having analysed the imposition of disciplinary actions in practice in Germany, we propose to compare it with the existing practice in Poland.

Violation of labour discipline is an act committed by a civil servant (an employee of a pre-trial detention centre) intentionally or unintentionally, smearing the good name of the service or excess of power or dereliction of duty, arising from the provision of the law or orders and instructions, issued by superior agencies.

Violations of labour discipline by the employees of pre-trial detention centres include, in particular:

- dereliction of duties, improper execution of duties or misfeasance,
- inhuman treatment that assaults dignity of people, deprived of their liberty,
- misconduct in office or malfeasance in office, defined in legal provisions,
- abuse of official position by a private person for financial or personal gain (Legislationline, 2001; Supreme Audit Office of Poland, 2020).

From January 1, 2017, to September 30, 2019, the penitentiary service monitored the work of employees of pre-trial detention centres (PRO (The Effective Regulation Platform), 2021). The dynamics can be seen in Figure 2.



**Figure 2.** Dynamics of disciplinary proceedings against employees of pre-trial detention centres for 2017-2019.

The dynamics shown in Figure 2 demonstrates that in total 1277 disciplinary proceedings were initiated against civil servants, 137 of which were related to the violation of personal security of prisoners (58 in 2017, 44 in 2018 and 35 in 2019).

Thus, there is an upward trend in the imposition of disciplinary actions in Poland – a decrease in disciplinary proceedings against employees of pre-trial detention centres from 2017 to 2019.

In Ukraine, imposition of disciplinary actions also has a number of features. First of all, the legislation of Ukraine, namely the Law of Ukraine “On Pre-trial Detention”, Article 21 defines that the staff of pretrial detention facilities includes non-management employees and superiors of the State Penitentiary Service of Ukraine and members of the Military Law-

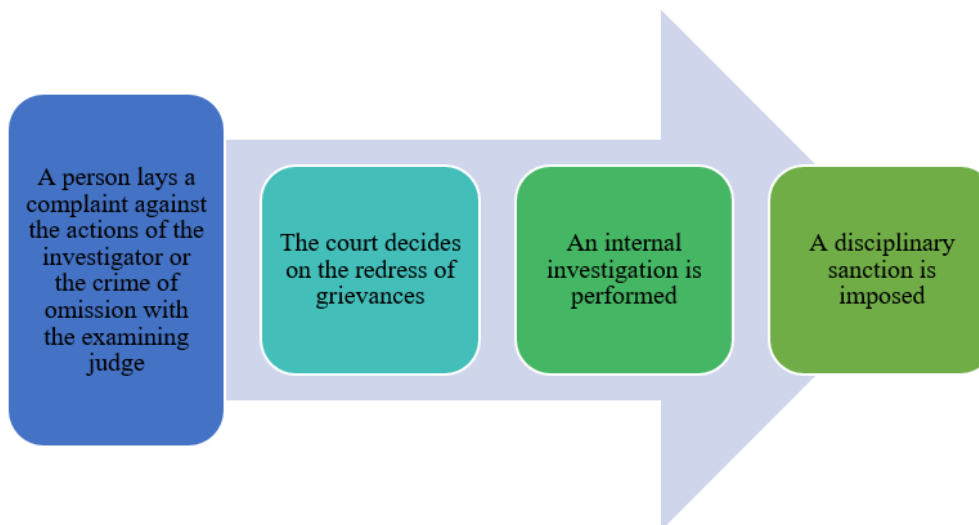
Enforcement Service in the Armed Forces of Ukraine, as well as persons working in these institutions under employment agreements. Employees of pre-trial detention centres within the powers granted by the Law of Ukraine “On Pre-trial Detention” and other laws and regulations shall independently make decisions and bear disciplinary or criminal liability for their illegal conduct or the crime of omission, including for dereliction of duty or improper execution of duties provided by this Law and other normative legal acts, as well as for violations of detainees’ rights (Law № 3352-XII, 2021).

In addition, in accordance with Article 130 of the Criminal Procedure Code of Ukraine, the State, paying the damages, caused by the prosecutor or the investigators (employees of pre-trial

detention centres), applies the right of recourse to these persons in case of establishing in their actions the elements of the criminal offence by the guilty verdict of the court, which became res judicata, or violation of discipline, regardless of the expiration of the statute of limitations of the

crime and the effect of disciplinary action (The Code of Criminal Procedure № 4651-VI, 2022).

Thus, imposition of disciplinary actions against the investigator (employees of pre-trial detention centres) proceeds as can be seen on Figure 3:



**Figure 3.** The process of bringing an employee of a pre-trial detention centre to disciplinary responsibility

According to Art. 147 of the Labour Code for violation of labour discipline, only reprimand and dismissal can be imposed on an employee, including employees of pre-trial detention centres (Law № 322-VIII, 2021).

Legislation, statutes, and regulations on labour discipline may provide other disciplinary sanctions for other categories of employees. For example, in the civil service system according to Art. 66 of the Law of Ukraine “On Civil Service”, apart from reprimand and dismissal, such disciplinary actions as administrative admonition and notice of misbehaviour may also be applied to civil servants (Law № 889-VIII, 2022).

An important factor in the application of disciplinary actions is that the imposition of disciplinary penalty is the employer’s right, not an obligation. Art. 152 of the Labour Code states that the employer has the right to submit the issue of violation of labour discipline for consideration

by the labour collective or its body instead of imposing disciplinary action (Law № 322-VIII, 2021).

It should be added that in Ukraine there is such a body as the Disciplinary Chamber of the High Council of Justice, which is regulated by the Law of Ukraine on the High Council of Justice, responsible for imposing disciplinary actions against judges, but its responsibilities do not include regulating the imposition of disciplinary actions against employees of pre-trial detention centres, though it is appropriate (Law № 1798-VIII, 2021).

Thus, based on the study, we suggest considering Table 1 and analysing the type of punishments that can be applied to employees of pre-trial detention centres, when they are brought to disciplinary responsibility in accordance with current legislation, as these factors allow to create a clear and comprehensive practice of imposition of disciplinary actions against employees of pre-trial detention centres.

**Table 1.**  
*Type of disciplinary action depending on the country.*

Type of disciplinary action / Country	Germany	Poland	Ukraine
Punitive reprimand	+	+	+
Administrative admonition	-	-	+
Fines	+	+	-
Warning letter for misbehaviour	-	-	+
Downgrading (and / or redundancy) official salary downgrade and pension cuts	+	-	-
Dismissal	+	-	+

Source: Authors.

Thus, examining the practice of the imposition of disciplinary actions against employees of pre-trial detention centres in Germany, Poland and Ukraine, it can be noted that despite the fact that each country has clearly defined legislation governing disciplinary liability, including employees of pre-trial detention centres, the analysis of statistics in these countries differs. Thus, according to the results of the study, Germany and Ukraine refer the analysis of the imposition of disciplinary actions against employees of pre-trial detention centres more to the general statistics (i.e. does not allocate clear and separate statistics on this problem), while Poland pays much more attention to this issue. In Ukraine, there is a need to extend the authority of the Disciplinary Chamber of the High Council of Justice, which could practice imposition of disciplinary actions not only against the judges (as it is now), but also against the employees of pre-trial detention centres. In Poland, the in-depth study of activity and compliance with legal and regulatory framework regarding the employees of pre-trial detention centres is carried out, including detailed analysis of statistical data on the number of disciplinary actions, imposed against the employees of pre-trial detention centres, and the frequency of their use. Accordingly, efforts are currently under way to improve the efficiency of the employees of pre-trial detention centres that could help reduce statistics on the disciplinary measures taken against them. However, it should be added that Polish legal framework is not so developed in terms of regulation of disciplinary liability (Legislationline, 2001; Supreme Audit Office of Poland, 2020).

Thus, there is a need to develop statutory regulation of the imposition of disciplinary actions against employees of pre-trial detention centres in Germany and Ukraine, and to monitor the statistics on this issue. Thus, in Ukraine there is a need to identify a body that could oversee the practice of imposition of disciplinary actions against employees of pre-trial detention centres.

The study found that in Poland there is a need to improve the legal regulation of disciplinary liability of employees of pre-trial detention centres, which will make it possible to improve statistics on this issue. Thus, in accordance with the findings, they will further identify how effective the legislation is and how effective the work of employees of pre-trial detention centres is in general and improve their work through the analysis of statistics on the imposition of disciplinary actions against employees of pre-trial detention centres.

### Discussion

The study of the practice of imposition of disciplinary actions against employees of pre-trial detention centres presented contradictory results. Countries like Germany and Ukraine include the analysis of imposition of disciplinary actions against employees of pre-trial detention centres into general statistics and do not separate them into separate practices, while Poland, on the contrary, provides a detailed review of statistics on the imposition of disciplinary actions against employees of pre-trial detention centres, but does not have a developed legal and regulatory framework for regulating this issue (Legislationline, 2001; Supreme Audit Office of Poland, 2020).

Having reviewed the studies of foreign and Ukrainian scientists, we can agree with allegations that imposition of disciplinary actions against employees of pre-trial detention centres requires constant legislative changes, as the regulation of this issue in the world is constantly changing.

For example, Lutsenko (2017) conducted a study of the judicial practice of bringing civil servants, including employees of pre-trial detention centres, to disciplinary responsibility for disciplinable offenses on the example of a number of countries, including Ukraine and Poland.

Lozovoy (2020) in determining the theoretical aspect of disciplinary responsibility, also took into account the practice of bringing the employees of pre-trial detention centres to disciplinary responsibility.

Coyle and Fair (2018) wrote a book on general theoretical and practical provisions relating to the imposition of disciplinary actions against employees of pre-trial detention centres, where they considered working peculiarities of these employees and identified the appropriate disciplinary sanctions.

Crystal (2019) has been researching the imposition of disciplinary actions against civil servants (including the employees of pre-trial detention centres) and bringing them to professional responsibility for many years.

Hayes et al., (2021) have investigated the disciplinary power that oversees the imposition of disciplinary actions against civil servants (including the employees of pre-trial detention centres) and the management of such staff during clarification of the circumstances, which, in fact, influence the determination of the degree of disciplinary responsibility that will be applied to the employee.

The application of disciplinary actions has been studied by such scholars as Marciano and Medema (2018), who considered this issue based on the analysis of legislation and practical experience of foreign countries.

Zhuravel (2021) studying the imposition of disciplinary actions, dwelled on the peculiarities of appeal procedures against decisions on the imposition of disciplinary actions against the employees of pre-trial detention centres.

Koval (2019) in his monograph also covers bringing the employees of pre-trial detention centres to disciplinary responsibility, as well as the conduct of criminal intelligence and surveillance operations.

## Conclusions

The study of imposition of disciplinary actions against the employees of pre-trial detention centres is undoubtedly of great importance for each country and for society as a whole. The problem of bringing the employees of pre-trial detention centres to disciplinary responsibility encourages the researchers and scientists not only to theoretically consider this topic, but also

to provide their recommendations for improving the practical significance of this study.

Based on the generalization of the practice of imposition of disciplinary actions against the employees of pre-trial detention centres in Germany, Poland and Ukraine, we have considered legal regulations of bringing the employees of pre-trial detention centres to disciplinary responsibility and assessed their effectiveness.

Having analysed the practice of imposition of disciplinary actions against the employees of pre-trial detention centres in Germany, Poland and Ukraine, it should be noted that for Germany and Ukraine there is a need to clearly distinguish statistics on this issue from the general practice. In Ukraine, there is a need to extend the authority of the Disciplinary Chamber of the High Council of Justice in terms of investigating the practice of bringing the employees of pre-trial detention centres to disciplinary responsibility. In Poland, there is a need to improve the legal regulation of the imposition of disciplinary actions against the employees of pre-trial detention centres, which will provide the opportunity for the improvement of statistics on this issue. Thus, compliance with such recommendations will show how effective the legislation is and how effective the work of employees of pre-trial detention centres is in general and will help to improve their work through the analysis of statistics on the imposition of disciplinary actions against employees of pre-trial detention centres (Legislationline, 2001).

The results, obtained during the study, can be used in research work, law-making and human rights activities and in the educational process. For example, research activities provide an opportunity to further continue the theoretical search for the purpose of improving the practice of bringing the employees of pre-trial detention centres to disciplinary responsibility. The results obtained should be used in law-making, as we formulated the proposals to improve in reality the regulation of bringing the employees of pre-trial detention centres to disciplinary responsibility in Poland. Application of the suggestions put forward in law enforcement activities, will make it possible to improve the practice of imposition of disciplinary actions against the employees of pre-trial detention centres and increase its efficiency. Equally important can be the use of this study in the educational process, as the research results can be used in classes at law schools, specialist educational establishments and other educational institutions to study



disciplines that involve the questions of the imposition of disciplinary actions against the employees of pre-trial detention centres.

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## On the possibility of non-standard measurement of personality value orientations

### ПРО МОЖЛИВІСТЬ БЕЗСТАНОГО ВИМІРЮВАННЯ ЦІННІСНИХ ОРІЄНТАЦІЙ ОСОБИСТОСТІ

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#### Abstract

As the title implies the article deals with the process of measurement of personality value orientations. This particular problem is especially acute during the COVID-19 and thus needs non-standard solutions. The article makes a point on what value orientations are, providing examples from history, philosophy, psychology and law to prove the point.

Modern science is not possible without measurement and the article demonstrates standards from different perspectives. Article provides the analysis of values, their role in society and an explanation of how do they form, it mentions that most human values, deeds and goal need to be evaluated. There is a comparison, the relationship of our own desires, instinctive desires, with a system of prohibitions, restrictions, social norms, ideals of society with a certain system of behavior formed in our imagination under the influence of social and cultural relations.

The emphasis is placed on the importance of using non-standard measurement and on that moral and structural categories cannot have a single quantitative standard, because they function as a measure. Article gives a perspective

#### Анотація

Як видно з назви, у статті йде мова про процес вимірювання ціннісних орієнтацій особистості. Саме ця проблема особливо гостро постає під час пандемії COVID-19 і тому потребує нестандартних рішень. У статті розкривається поняття - ціннісні орієнтації, на що додаються приклади з історії, філософії, психології та права.

Сучасна наука неможлива без вимірювання, в статті демонструються стандарти з різних точок зору. У статті наведено аналіз цінностей, їх ролі в суспільстві та пояснення того, як вони формуються. Зазначається, що більшість людських цінностей, вчинків та цілей потребують оцінки. Існує порівняння, взаємозв'язку власних бажань та інстинктивних бажань із системою заборон, обмежень, соціальних норм, ідеалів суспільства, тобто з певною системою поведінки, що формується в нашій уяві під впливом соціальних і культурних відносин.

Акцентується увага на важливості використання нестандартних вимірювань, тому що морально-структурні категорії не можуть мати єдиного кількісного стандарту, оскільки функціонують як міра. Стаття дає уявлення про те, як формуються значення та

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on how are the values formed and denoted the type of non-standard measurement.

Due to changes of society the value system is changing, so a certain system of values that has developed in a person under the influence of society, its traditions, prohibitions, norms of behavior, socially significant events, etc., should refer to the non-standard measurement.

**Key words:** moral-ethical discourse, values, COVID-19, society, Kant, Freud, law enforcement, moral, value orientations, non-standard measurement, standard.

## Introduction

We often hear and use the phrase: "Everything has a price. Everything can be assessed." Is it possible to evaluate human life? What is its price? This issue was especially acute during the COVID-19 pandemic. The value of human life was felt even more acutely when Italian doctors were faced with a choice: which of the patients should be treated earlier. Maybe that's why it's hard for us to imagine that a few centuries ago a person could be bought for a handful of tobacco in a Turkish bazaar. But what value orientations should a person have who should evaluate, determine, measure human qualities, competencies, human behavior? In recent years, our society has undergone a number of changes, including political, social, economic changes, which has certainly led to a change in the established system of values inherent in our society, and the replacement of some of them with new ones that meet the needs of life. The question arises: how to determine, measure the speed of these changes? How to determine the extent of the impact of social change on the change of human values?

Most often, value is understood as a concept of significance for a person of a phenomenon or event. With the help of values and value orientations a person distinguishes the significant, essential, important for him from the insignificant, insignificant and unimportant. The modern pace of life requires a person to reconsider his needs, motives, goals that he sets for himself, ways to achieve the goal. At the same time, under the influence of external changes, the personality itself changes, which can be presented as a system of values that become the main reference point in the choice of goal and motivate to action. This system of values is formed in accordance with the surrounding reality, on the other hand depends "on the social

позначається тип нестандартного вимірювання.

Зазначається, що внаслідок змін суспільства змінюється система цінностей. Тому для виміру певної системи цінностей, що склалася в людині під впливом суспільства, його традицій, заборон, норм поведінки, соціально-значущих подій тощо, слід посылатися на нестандартне вимірювання.

**Ключові слова:** морально-етичний дискурс, цінності, COVID-19, суспільство, Кант, Фрейд, правоохоронні органи, мораль, ціннісні орієнтації, нестандартне вимірювання, стандарт.

essence of man and his dependence on spiritual, moral, economic and political social relations, and on the third - on man's connection with personal, universal, higher spiritual values. that exist transcendently (Aleksandrova, 2012, p. 92). So in the XXI century, especially now, during the COVID-19 pandemic, such values as life, health, family come to the fore again, somewhat reducing the value of money, success, business. Under the influence of values, new value orientations are formed. Therefore, the values and value orientations of man, in fact, are a socio-psychological indicator of changes in society. Even in the formation of professionally important personality traits involved not only the set of professional characteristics of the individual, but also his personal qualities that are important for his professional activities.

Thus, the definition, or rather measurement, requires both social change and changes in the value orientations of the individual. The question arises as to how to measure value orientations. At first glance, it seems that a more reliable method of reference measurement should be used. But the use of this method for measurements in the social and psychological, social spheres is associated with a number of difficulties, first of all, it is the search for standards of measured values. In our opinion, in such a situation it is necessary to turn to an alternative non-standard measurement. Among the authors who actively developed questions about the methods and use of alternative types of measurement should be noted K. Berka (Berka, 1987), V. Zvonnikov (Zvonnikov, 2006), N. Prokopenko (Prokopenko, 2011), M. Buchyn (Buchyn, 2016), O. Popova (Popova, 2009). The need, methodology, features of application, non-standard measurement was discussed in the works of Academicians A.I. Uyomov,

G.A. Polikarpov (Uyomov, Polikarpov, 1972); O.M. Efimov, V.M. Kuteev (Yefimov, & Kuteev, 1978); V. Malaychuk, V. Mozgovoy, S. Klimenko (Malaychuk, Mozgovoy, Klimenko, 2007); O. Puchenko (Puchenko, 2008).

**The purpose of this article** is to analyze the process of formation of value orientations, analysis of the value orientations themselves and the possibility of measuring them using non-standard measurement.

### Theoretical Framework

Non-standard measurement originated in the depths of the natural sciences as an alternative method of measuring those values to which it was impossible to select standards and apply the mechanism of reference measurement. In the scientific literature we find many examples of non-standard measurement. Some of them are similar, others differ in their mechanisms, field of application, but unites them in one class the lack of a standard of the measured value, and, in most cases, the lack of numerical results obtained due to the fact that the measurement process required find out how many times measured value greater or less than the standard. In addition, in the scientific literature there is no clear definition of the term "non-standard measurement", and therefore there is a need to analyze and determine the types of non-standard measurement. And first of all to determine the possibility of non-standard measurement of value orientations of the individual.

What are value orientations and how exactly are they formed? In European philosophy, the problem of values is formulated in the ethics of Kant, the central concept of which are imperatives and maxims. Let us recall two formulations of the categorical imperative: one must always treat man and oneself as a goal, and not only as a means; it is always necessary to behave in such a way that the maxim of action can become a general law for all. Kant's imperative defines a kind of standard of attitude to man and the assessment of certain events in accordance with man and human life. But as noted by well-known psychologists D.M. Kyslynska and N.E. Miloradova "for most theories that can be attributed to the "biological" or "natural" class of psychology, values are not empirically verified categories" (Kyslynska, & Miloradova, 2016, p. 64). This is most clearly defined in the theory of K. Levin, who deliberately excludes value judgments from the system of scientific concepts. The main advantage of the empirical way of thinking, in his

opinion, is that "it does not trace "no value concepts"" (Kyslynska, & Miloradova, 2016, p. 65). Any scientific knowledge, any scientific theory can be neither good, nor evil, nor good, nor bad from a moral point of view. For a long time, it was considered that all scientific knowledge was morally neutral. So, really, is it good or bad to know how a uranium nucleus splits when a certain amount of energy is released? Scientists consider this knowledge to be morally neutral. Quite another - how to dispose of this knowledge, what to create on the basis of this knowledge: "peaceful atom" (nuclear power plants, nuclear engines), which will help save natural resources, or weapons of mass destruction?

This issue escalated during World War II. The value of scientific knowledge was discussed at the Nuremberg Trials, where the "case of doctors" was considered separately. On the one hand, a huge number of experiments conducted on humans have provided researchers with valuable information in certain fields of medicine and led to their further development, and on the other hand, we must not forget how this information was obtained. It turned out that on one bowl is the thirst for discovery, discovery of new scientific horizons, the creation of drugs or information that may save many lives in the future, and on the other - human lives that were taken without consent, without good will for these experiments.

Thus, science cannot remain morally neutral when it comes to human life, and here it is impossible to do without a value assessment of the purpose, the ways in which the study was conducted, and the use of the results. I would like to recall the words of the famous psychologist B.F. Skinner: "value judgments only go to the right path, where this trace is left by science. And when we learn to plan and measure small social interactions and other cultural phenomena with the same accuracy that we have in physical technology, the question of value will disappear by itself" (Kyslynska, & Miloradova, 2016, p. 65). If scientists begin not only to evaluate, but also to objectively measure social, political, economic phenomena and events, to provide the most objective analysis of the results, avoiding analysis through the prism of value orientations, then science will once again take a step towards moral neutrality. But it is impossible to quantitatively (reference) and objectively measure the speed of dissemination of important information, the very value of the received information, the reaction of society to it without taking into account value orientations. Therefore,

it is impossible to "cleanse" science from the subjective, from values, from the qualitative assessment of phenomena, events, results.

As value orientations are often understood as life ideals, aspirations, desires, goals, attitudes to certain values of material or spiritual culture of society. From a psychological point of view, value orientations are "a component of personality structure that reflects the life experience gained by the individual in individual development, and is the core of consciousness, from which the individual makes decisions on important life issues" (Fedukh, 2011). It is believed that life orientations are formed gradually during the assimilation of social experience and begin to manifest themselves in the ideals, beliefs, goals set by the individual. According to Freud, human behavior is based on deep instinctive urges ("It"), which serve to meet the biological needs of man. "It" is a reservoir of mental energy, desires that seek instant gratification. "It", so to speak, does not know the values, moral principles and laws, does not know what is good, evil. The next component of the structure of consciousness is the "I". "I" - a kind of mediator between the outside world and the deep "It", between attraction and pleasure. "I" is formed as an "imprint" of external reality on the array of urges, emotions, wishes "It". The third component of the structure of consciousness is the "Super-I", which will be a kind of product of the cultural environment created for the "I". The "Super-I" contains the ideals of society, social norms, moral attitudes, ethical values, norms of behavior that exist in a particular culture, which the child learns, and which he must adhere to. The "Super-I" acts as a kind of censor of the activities and thoughts of the "I", a conscience that can cause feelings of shame, guilt, fear, and sometimes depression, sets certain limits for the "I". It is believed that each element of consciousness contains values. The "Super-I" contains social, cultural values and norms of behavior, traditions, which are accepted by future generations. "I" contains individual values that are stronger than conventional, but are formed under their influence. As for the component of consciousness "It", then, V.E. Chudnovskiy suggested that many stimuli from the unconscious are based on consciously accepted moral values and are so deeply absorbed that they can resist not only conscious intentions but also instinctive urges (Chudnovskiy, 1995). Interesting is the fact that even in a hypnotic state it is not possible to instill in a person those ideas, norms of behavior that contradict strongly learned values.

Value orientations are a kind of reflection in the consciousness of the individual values, which are recognized by him as goals and guidelines, formed by correlating personal experience with reference (or rather quasi-reference) patterns of culture that are common in society. According to R.S. Chip, value orientations are considered as "a subjective image of cultural values, ie specifically mastered value in accordance with the individual experience of the individual" (Chip, 2012, p. 811). Society forms a certain system of values that the individual learns, including in the process of communication. Thus, A.I. Dontsov defines value orientations as "semantic attitudes of the subject, realized by him in the process of socialization (entry into society) and formulated in terms proposed by society" (cited. for Fedukh, 2011). Value orientations, according to V.O. Yadov, are "integrative, freely and responsibly chosen by the individual attitudes that are broader and more included than any fixed or even basic social attitudes, guidelines and ideals" (cited. for Fedukh, 2011). Value orientations are not produced in each individual, but only in one who has reached the required stage of development. The transition to value orientations occurs by gradually consolidating them in appropriate situations that meet a particular level of needs. The presence of established value orientations indicates a person's maturity. The life experience of people accumulates in value orientations. Thus, value orientations are often understood as a reflection in the human mind of the values that are chosen by him as strategic life goals, as worldviews.

Referring to M. Sliusarevskiy, it can be noted that value orientations are a kind of link between values as abstract landmarks and human life goals, which appear in the form of regulation of its social behavior (Sliusarevskiy, red., 2008). In value orientations the steady relation of the person to material and spiritual values and ideals is gradually shown. Values and value orientations are a kind of link between moral consciousness and human behavior. As A.I. Tytarenko notes, "value orientations are such elements of moral consciousness that are objectified in actions. They are closely connected with the needs and interests of the individual, with the emotional and volitional mechanisms of his psyche" (Zhyrun, 2007). Most research on the analysis of value orientations takes place through the analysis of manifestations of value orientations in various spheres of life.

Also, value orientations are formed on the basis of motives, interests and human needs. A need is

a need for a particular object that arises in the subject and determines the system of his behavior and actions in relation to this object. Modern science distinguishes between "material, social and spiritual needs, which are formed in the process of cognition and evaluation of reality. When a person learns reality, objects, phenomena, he immediately determines for himself their value or not value (Aleksandrova, 2012, p. 94), while there are both emotional and volitional and rational components.

In the process of development of value orientations there is, first, an emotional experience, an emotional assessment of a person of a certain value, which accompanies the need. Even then, the need acts as an awareness of plans, desires, certain ideas that are embodied in the goal, and the need gradually takes the form of a goal. The formation of value orientations also involves a rational assessment of values, which is necessary for human awareness of the motives of actions, and forms the basis of the cognitive element of value orientations. An important place in the formation and development of value orientations also belongs to the behavioral element, which is often a practical expression, the expression of value orientations in actions, human actions, taking into account the "real" opportunities and circumstances.

Thus, the analysis of value orientations, moral criteria, actions, human behavior must contain an element of evaluation, and to provide an assessment often requires measurement. Modern science is impossible to imagine without a measurement procedure. Measurement exists as an independent empirical method of research and as part of another empirical method of cognition - an experiment, which is increasingly used in the social sciences and humanities. To measure everything that is possible and to transform into measurable those quantities that could not be measured before - in fact, becomes the motto of modern science. But what about measuring and evaluating the value orientations that have formed in a person? What methods, methods and "standards" can be used?

The first thing we need to realize when discussing ways to assess value orientations is that there is no question of using any standards at all. Kant's well-known categorical imperative is often called the "standard" of moral actions: one must treat man and oneself as a goal, and not only as a means, or one must behave in such a way that the maxim of your action could become a general law. to all. A superficial analysis may give the impression that such a standard is a person who

can only be a goal, not a means. But the standard is a clearly fixed international quantity, it is a means of measurement, one of the tasks of which is also to preserve and reproduce a unit of physical quantity for further transfer of its size to other means of measurement, which are located below in the test scheme. Therefore, if in everyday life we often use this term along with completely non-physical quantities ("standard of beauty", "standard of honesty", "exemplary (standard) manners", etc.), then the application of this term to moral concepts is contrary to its meaning. In our opinion, when analyzing such values, it is more appropriate to use the concept of "quasi-standard", which is not an international fixed standard for this value.

If we continue the analysis of the categorical imperative of Kant, then where it is a requirement that the maxim of the act could become a common law for all, the same, at first glance, is a standard and the only common for most mechanism of measurement. But, again, at first glance, because it is even impossible to imagine a situation in which standards will be created to measure moral, ethical concepts, value orientations and a single measurement mechanism such as reference measurement.

Another brilliant example of the moral standard of man is the Ten Commandments of God, the Ten Basic Laws given by Moses God on Mount Sinai on the fiftieth day after the Exodus from Egypt. They are undoubtedly the law and model for the behavior of any Orthodox believer, Catholic, Jew. The sixth commandment: do not kill. We know that monks and priests keep God's law especially conscientiously. But the history of the Orthodox Church knows many examples when priests violated this commandment and took up arms. This was possible under the only condition: to defend their homeland from the enemy. Today, unfortunately, few people know about the priests who defended their homeland on the fronts of the Great Patriotic War. No one will be able to determine exactly how many people wore a soldier's overcoat instead of a robe and went into battle with a rifle in their hands and a prayer on their lips. This may seem especially strange, because we know about the persecution that the Russian Orthodox Church suffered in the 1920s and 1930s. They also faithfully defended their faith and homeland, many of them received awards, including medals "For the Defense of Leningrad", "For the Defense of Moscow", "For the Defense of Stalingrad", "For Courage", "For the Capture of Berlin", the Order of Glory, Orders of the Patriotic War, Order of the Red Star, etc.

Again, it is difficult to define the Commandments as standards, given the meaning of the term "standard". Therefore, in our opinion, we should turn to the non-standard measurement. The non-standard measurement of moral, ethical concepts and categories is discussed in the works of O.P. Puchenko: "the non-standard measurement can be considered as a general interval defined by mankind, within which the content of this moral concept or category functions positively. Moral and structural categories, such as norm, principle, assessment, ideal, views, knowledge... cannot have a single quantitative standard, because they function as a measure" (Puchenko, 2008, p. 364). Indeed, it is difficult to even imagine how it is possible, using standards, to measure motives, goals, purpose, influence of emotions, traditions, upbringing, morals, mood to make a decision, evaluation of an event, even just concentration, concentration measurement, processing of results, especially when it comes to the field of social sciences and humanities. And how to get rid of the influence of all this "subjective", which we need to get rid of the reference measurement?

Let's turn to the non-standard measurement and with its help we will try to assess certain phenomena, events, moral acts, as well as qualitatively describe the process of formation of value orientations of the individual. Non-standard measurement is a type of measurement that takes place without the use of a mandatory standard of the measured value, instead the classification of the measured object is based on the presence or absence of the measured feature, comparison of the measured feature with the quasi-standard of the measured value, measured, and sometimes formed the investigated thing (Hotynian, 2005).

Recall that when a person learns about objects, phenomena of the world around him, he immediately determines their significance for himself and, above all, their value or not value for himself. This is a complex process, which is initially based on emotional impressions and experiences, which are then rationally realized and take the form of a goal. Often value orientations are understood as the result of the projection of values, which we have defined for ourselves as significant, on the plane of individual consciousness. This process can be described and evaluated using a type of non-standard measurement, which is based on the compared features with the measured object, in the process of which we determine whether the feature belongs to the measured thing or not. This type of non-standard measurement is denoted as

$R(P, m)$ . In our case, there is an acceptance or non-acceptance of certain values. Children vividly and directly demonstrate this process when they are interested (looking, biting, breaking) a certain thing or not interested in it, almost immediately reject it.

## Discussion

Value is always objective. There are universal, national, collective, individual values. The highest values do not depend on historical conditions, social changes, views of individuals. Value orientations are always subjective. According to O.F. Alexandrova, many researchers interpret value orientations as "the attitude of the individual to certain values of material and spiritual culture of society. They believe that value orientations are the most important component of the structure of personality, which determines its behavior and attitude to the world around" (Aleksandrova, 2012). Value orientations are formed on the basis of a combination of values important for the individual, which are reflected in his consciousness. The same author gives another definition of value orientations, namely, "it is a relatively stable relationship of man and a set of material, social, spiritual goods, ideals that act as objects, goals and means to meet the needs of human life" (Aleksandrova, 2012). In our opinion, the process of formation of value orientations describes the type of non-standard measurement, which is based on a combination of features that form, determine, measure a thing. This type of non-standard measurement is denoted as  $R(P_1, P_2, \dots, P_n)$ .

Most human actions and deeds need to be evaluated. The goals a person sets for themselves also need to be evaluated. As noted by O.P. Puchenko and O.M. Chernysh in the understanding of evaluation "two extremes prevail: on the one hand, evaluation is identified with emotion (anxiety, fear, longing, satisfaction, joy), and on the other - it acts as a social phenomenon and its functions are reduced to comparison and choice, as well as the method of determining and expressing value" (Puchenko & Chernysh, 2006, p. 377). But in fact, the assessment is not one of these two extremes. It is neither a feeling nor a judgment, it can be a link between them. It is through the assessment of certain phenomena and events that a person connects himself not only with the surrounding nature and social reality, but also with other people, with society as a whole. It is through evaluation that a combination of feeling and logic takes place.



Value orientations that have formed in a person often serve as a basis for moral evaluation - approval or condemnation of human activity from the standpoint of those requirements, those life guidelines that are contained in the moral consciousness of society, ethnic group, social community, individuals. The subjectivity of any moral evaluation is determined, first of all, by the system of values that have formed in the subject of evaluation, its needs and interests. In our opinion, such a system of moral evaluation corresponds to the type of non-standard measurement, which is based on the comparison of the characteristic (or system of characteristics), which are taken as a certain quasi-standard for measurement, with the characteristic belonging to the object of measurement. This type of non-standard measurement is denoted as  $R[P_1, (m^*)P_2]$ . In our case, the approval or condemnation of a certain action, a certain act of a person ( $(m^*)P_2$ ) is based on a comparison with certain requirements, internal criteria, value orientations of the person ( $P_1$ ) who performs this assessment.

According to such a mechanism, in our opinion, there is a comparison, the relationship of our own desires, instinctive desires, with a system of prohibitions, restrictions, social norms, ideals of society, ie with a certain system of behavior formed in our imagination under the influence of social and cultural relations. The very idea of the eminent physician S. Freud can also be described by this type of non-standard measurement. So you feel thirsty and want to eat something delicious. Your sensation ( $P_2$ ) comes from the depths of the layer of consciousness, which S. Freud called "It". You have realized this desire, it is your desire (now let's denote it as  $(m^*)P_2$ ). But, unfortunately, at this time you are in a lecture and your "Super-I" ( $P_1$ ), your internal "standard of behavior" forbids you to eat, because such behavior is not acceptable in higher education. And then there is the same, so-called, "internal struggle" ( $R[P_1, (m^*)P_2]$ ) between our desires and a clearly formed system of behavior that corresponds to our upbringing. We begin to make certain important arguments for ourselves why we should act in this way and, in the end, we make a decision, we get the result. Probably such a scheme is quite crude to describe the internal struggle that accompanies our decision-making, especially important decisions. But it is also a measurement - a measurement of the ability to satisfy certain of our deep desires. In our opinion, the decision in this case is based on the correlation, the comparison, on the non-standard measurement of the comparison of our desires and our capabilities, the result of which is the

satisfaction or dissatisfaction of our needs or our desires.

The procedure of moral assessment in law enforcement is interesting. Moral evaluation in law enforcement is "the process of establishing correspondence (or inconsistency) between the provisions of legal norms, which enshrine morally significant phenomena and expressed in ideas and behavioral patterns of social significance of real social relations, actions or other phenomena to which the legislator gave legal significance" (Tarnavska, 2011). Social significance is often understood as the ability of a person to influence events that occur in society (it is possible to control a certain group of people, or to have a certain authority in society). Feelings of inferiority, uselessness, professional and personal incompetence are often considered social insignificance. For a particular person, the relationship of social significance and social insignificance determine the degree (measure) of human sociality. In order to remain a social being, a person must claim at least some participation in affairs. Due to the fact that a person is included in the social process of life, he acquires a certain social significance.

Most often, scientists call a certain value orientation a criterion or basis for moral evaluation, based on which the subject of evaluation performs evaluation. According to V. M. Kosovych, the evaluation criterion should be defined as subjective and objective factors by which the internal intellectual will of the subject of evaluation is formed (Kosovych, 2006). In addition, in the case of moral evaluation in law enforcement, jurists use the concept of evaluation standard. The standard of moral evaluation in law enforcement is "a normative model of a certain type of objects of law enforcement evaluation, formed on the basis of notions of what exists in the individual and / or social consciousness" (Tarnavska, 2011). Thus, we have a criterion of moral evaluation and a standard of moral evaluation between which there is a certain functional connection, because due to the evaluation criterion the standard is chosen. In addition, in the process of moral evaluation, certain reasons (determinants) of the conditions for choosing such an evaluation standard and comparison with this standard of a particular object are identified, which ultimately forms a moral evaluation. These include cultural, ethical, moral factors, as well as the individual needs and interests of the evaluator, his moral and legal consciousness. The factors of the conditions for choosing the standard include "various material conditions in which law enforcement activities

are carried out - the state of the economy, the level of actual workload of the law enforcer - the degree of his independence, etc." (Tarnavska, 2011)

But, in our opinion, this is a quasi-standard rather than a standard in the standard sense of the term. Thus, the standard is an established international generally defined standard of a certain value. The above definition implies that the standard is essentially formed on the basis of notions of belonging that exist in the individual or social consciousness. That is, in our opinion, this interpretation of the standard does not meet the strict criterion of objectivity, which is the main condition for choosing a standard of a certain value. In addition, most often the conditions for choosing a standard include "a variety of material conditions in which law enforcement activities - the state of the economy, the level of actual workload of the law enforcer - the degree of his independence, etc." (Tarnavska, 2011). Therefore, in the moral assessment of law enforcement, it is better to use the concept of "quasi-standard", which is not limited to such strict requirements as the concept of "standard", as discussed earlier. In this case, to describe the mechanism of moral evaluation, you can use a kind of non-standard measurement, which is based on the comparison of two things, one of which is chosen as a quasi-standard, and the other is a measurable thing. This type of non-standard measurement is denoted as  $R(m_1, m_2)$ . As a result of such a measurement, you can (if necessary) get a number that will indicate how many times the measured object is bigger, smaller, harder, softer, kinder, smarter, more moral, more educated, etc. for the object selected as the quasi-standard for comparison. Each of us has an established system of value orientations and sometimes it happens that we find its "reflection" in a certain person, we create an "idol" with actions, the beliefs of which we try to compare our own beliefs and actions. But society is changing, times are changing, the value system is changing, and young people are choosing "their idols", which can be very different from the idols of previous generations.

## Conclusions

So, when it comes to assessing or qualitatively measuring certain actions of a person, his behavior under certain circumstances, the quality of knowledge, personal criteria, determining a certain system of values that has developed in a person under the influence of society, its traditions, prohibitions, norms of behavior, socially significant events, etc., should refer to

the non-standard measurement. It is with the help of non-standard measurement that you can measure and describe the process of formation of value orientations, qualitatively characterize, in most cases evaluate the value orientations themselves, and not only the value orientations themselves, but also their impact on moral evaluation of events and phenomena. Since changes in modern society are happening too fast, it is interesting not only to determine the speed of these changes, their qualitative characteristics, but because all these changes affect the system of human values and they must also change, the question of applying non-standard measurement to determine this change is a very important problem of modern philosophy and methodology of science. Clarification (and, possibly, further formalization) of the mechanisms of non-standard measurement, the possibility of using types of non-standard measurement in measuring specific value orientations, the choice of the most accurate and appropriate type of non-standard measurement are the prospects for further research.

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## Scientific faith: social and cognitive aspects

### НАУЧНАЯ ВЕРА: СОЦИАЛЬНЫЙ И КОГНИТИВНЫЙ АСПЕКТЫ

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#### Abstract

The study analyzes scientific faith through the lenses of its scientific, cognitive, and social potential. The paper aims to study the role of secular non-religious faith in contemporary social processes and individual cognitive formation. The research methodology includes a systematic approach to demonstrate the relationship between an individual's cognitive settings and social reality; dialectical approach; analysis and synthesis. Results: the transformation of traditional social relations leads to the popularization of non-religious secular faith, especially the scientific faith, which motivates to unprovably accept scientific and pseudoscientific positions as true for gaining existential confidence. Scientific faith leads to the irrational acceptance of the scientific understanding of the world, the axiomatic base, and each specific theory, as the closest to the absolute truth, which provides the researcher with permission to use them. Conclusions: Scientific faith turns into a powerful social phenomenon, responsible for transforming the image of science in mass perceptions into the

#### Аннотация

В работе авторы анализируют веру в науку через призму ее научно-когнитивного и социального потенциала. Цель статьи – изучить роль светской нерелигиозной веры в современных социальных процессах и формировании когнитивной активности индивида. Методология включает системный подход для демонстрации связи когнитивных установок индивида с социальной действительностью; диалектический подход; методы анализа и синтеза. Результаты: трансформация традиционных социальных отношений ведет к популяризации нерелигиозной светской веры, в особенности веры в науку, побуждающую индивида бездоказательно принимать научные и наукоподобные положения за истину ради обретения экзистенциальной уверенности. Это может привести к иррациональному принятию научной картины мира, аксиоматической базы и конкретной теории как максимально близких к абсолютной истине, что дает исследователю санкцию на их использование. Вывод: научная вера превращается в мощный социальный феномен, ответственный за образ неоспоримого идеала истинности, сложившегося в массовом

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undeniable ideal of truth; this makes further scientific advances difficult.

**Keywords:** existential confidence; scientific faith; scientific worldview; secular faith; epistemological approach.

## Introduction

Traditional cognitive practices such as faith continue to play a significant role in modern society. One example is that organic food production networks and consumption are inspired not only by religious groups' practices and beliefs, namely in Asia, but also by studies of economization and marketization (Wang, 2021, p. 361). Faith to classical social institutes that have proved their practical applicability, primarily science, remains to be high (Kongoli, 2016), as "scientific and technical rationality contribute to providing interoperability between competing free individuals and groups" (Sirazetdinova et al., 2021, p. 111). In these circumstances, a broad-based scientific faith constructs an ordered and understandable reality, the logic of which demonstrates the correctness of individual actions (Farias et al., 2013), which provides a feeling of safety and comfort. Science is considered to be "international by nature", "being aware of scientific community's role", "following standards and regulations", "protecting from both physical and emotional harm", "solving everyday societal life problems".

## Theoretical Framework and Literature Review

In contemporary society, the individual needs the tools to guide in the flow of meanings and values that lose their strict order. This also applies for youngsters, including undergraduate and postgraduate students. When stable systems of values are deconstructed, individual cognitive settings, determined by the specific functioning of the human brain, prevail (Boyer, 2001). The leading cognitive practice that helps the individual navigate the world of a rapidly changing reality is faith. It helps a person to feel confident, quickly process the surrounding information space, which is necessary for the search for truth (Inzlicht et al., 2011). Faith as a cognitive act is an unproven acceptance of something for truth. Since modern youngster is immersed in reality that is largely constructed using scientific technology, it is not surprising that one of the most dynamically developing types of faith is scientific faith. It became the leading way to comprehend and transform

сознании, что крайне затрудняет дальнейшее научное познание.

**Ключевые слова:** когнитивные установки, экзистенциальная уверенность, научная вера, светская вера, научная картина мира, технический прогресс.

reality, and to get closer to the truth. The aim of this work is to study how the phenomenon of scientific faith arises, and why it provides individuals with existential confidence.

The hypothesis is that scientific faith as one of the most significant irrational practices has two prior dimensions: social and scientific-cognitive. The first demonstrates that the image of science in the mass consciousness has become a standard of truth, and compliance with it contributes to the comfortable existence of the individual. The second reveals the relationship between scientific faith and scientific knowledge.

Farias et al. claim that faith is "belief in the value of science as an institution and in its superiority as a source of knowledge can offer reassurance to secular individuals in threatening contexts" (Farias et al., 2013, p. 1211). The existential need for confidence gives rise to an increase in the importance of faith in science as the best way to comprehend reality. Already for C. Darwin and E. Haeckel, scientific faith predominates over religion (Gori, 2017). Contemporary society comes to unreasonably opposing religious and purely scientific knowledge and methods (Korzhev et al., 2019, p. 49).

At the same time, in many developed countries of the world, social institutions traditionally monopolize the right to convert to faith have lost a significant part of their historical potential. For example, some researchers, noting the high role of faith in the life of modern Europe, nevertheless states that traditional churches in Europe "are no longer able to discipline the beliefs and behavior of the great majority of the population" (Davie, 2006, p. 271). Muslim theology indicates the dangers of replacement classical Islamic dogmas by "scientific" and "digitized" reformist Islam (Rakhmatullin et al., 2021). Scientific, religious, and magical knowledge was closely intertwined not only in antiquity: their relations do not disappear completely with the rapid development of science starting from the new time, remaining is its background (Minniakhmetova & Suleymanova, 2019; Vranjes, 2019). In this vein, researchers believe that the principles of this faith

and science are complementary (Collins & Rojas, 2011).

### Methodology

According to the epistemological approach, believing is a component of any cognitive process and is “a human brain function which results in probabilistic representations with attributes of personal meaning and value and thereby guides individual behavior” (Seitz et al., 2017, p. 1).

Scientific faith has two dimensions: social as a way of gaining existential confidence and cognitive as an element of the scientific cognitive process.

This study proceeds from the fact that faith as a gnoseological phenomenon assumes an unproven acceptance of something for truth and is the attribute of cognition. Without scientific faith as the starting point of a researcher’s cognition, it is impossible to construct an axiomatic base of scientific knowledge. Belief in science determines the initial position of a scientist who, of the many available axiomatic bases, selects a scientific one. The encirclement with the products of scientific and technological progress together with the deconstruction of traditional semantic paradigms determine contemporary human beings. This creates an existential demand for a complete image of reality, providing a feeling of confidence and security. The massive belief in science is becoming so powerful that even religious organizations use it for their purposes.

Research materials include works in the fields of epistemology, philosophy of science and social philosophy, and the resources of religious organizations.

### Results and Discussion

The semantic matrices proposed by social institutions that have used faith in their practice for centuries became outdated, and religious organizations are aimed at attracting and retaining the maximum number of supporters. This is not just about increasing the number and influence of such organizations, but also about the specifics of the content they distribute that determines their success.

#### *Scientific faith in contemporary society*

Since the success of non-traditional religious organizations is directly related to the number of

their supporters, they are forced to build their rhetoric in accordance with the mood of the masses.

In this vein, an analysis of the activity of some of these organizations is fruitful. In the concise framework of this work, an analysis of marginal sectarian groups is not possible, since their influence is limited to a small circle of people. Therefore, we examine the content of the largest non-traditional churches – Jehovah’s Witnesses and the Seventh Day Adventist Church.

One of the books outlining the ideas of Jehovah’s Witnesses is “Does a Caring Creator Exist?” (Watch Tower Bible and Tract Society of Pennsylvania, 2017). When analyzing this book, an abundance of scientific vocabulary and terminology immediately catches one’s eye: it uses Mendeleev’s periodic table, states that life forms depend on the coordinated work of nucleic acids. In addition, the authors constantly cite as examples not only sayings from the Bible but also citations from scholars such as Christian de Duve, Jacques Monod, David Mackay.

Adventists use the same message, posting on their official website (Seventh Day Adventist Church, 2019) more than 10 publications available for the request “science of religion” and more than 50 articles corresponding to the query “Bible and science”. If earlier religion was perceived as a kind of Absolute, then at present, science claims the role of the Absolute.

Not only technology but also the education system is of enormous importance. Education has gone out of the influence of the church and has turned into a mass conveyor of superficial familiarization with basic scientific facts, which are often not reflected by students at the proper level. Moreover, an ideological pressure of the educational system forms the worldview of contemporary humans (Feyerabend, 2010). It is important to understand that the popularization of science, a wide network of secular compulsory educational institutions, has not made most people scientists. On the contrary, the phenomenon of mass belief in science has arisen, which has nothing to do with science.

As a result, science becomes a kind of analog of a deity, in the context of the fact that it is an object of their faith, a source of ideas about the world, an initial axiomatic base, because without even having any truth about the object, a person believes in his ideas about it.

One who has been accustomed to believing that science is good and true from the school bench, unwittingly believes that any seemingly scientific reference and evidence apparatus is true.

Contemporary individuals are largely confidential disposed towards science. Science is much more “modern” than orthodox religious institutions, whose traditionalism often contradicts the contemporary Western understanding of human rights and freedoms, which causes a certain skepticism towards them in a significant part of the population due to globalization. This includes, for example, the notion of women’s participation in sports as “steps of the devil” leading to immorality (Human Rights Watch, 2012).

For a contemporary individual, technical and technological progress appears as a kind of a marker for the development of the post-industrial world. However, the tendency to increase the influence of scientific faith is not an artificially supported social phenomenon. It comes from an attempt to explain the objective processes in the world in the most effective way.

Thus, despite the transformation of the classical worldview and the deconstruction of traditional values and meanings within the postmodern trend, at the level of mass consciousness, science remains being a semantic beacon, at least, for the Western civilization.

This does not mean that contemporary science does not transform; on the contrary, the changes are constantly taking place. However, contemporary maintains its cognitive potential and continues to be a standard of truth for both the broad masses and the scientific community.

At the same time, what is important for an individual, is not being scientific, but similar to science. This is because to determine genuine science, it is necessary to pass an appropriate training and have relevant experience. This is the only way to the transformation of a naive faith into scientific faith, related to the scientific cognition of the world itself and having the relevant cognitive potential.

#### *The cognitive potential of the scientific faith for scientific inquiry*

Scientific faith is inherent not only to the abstract social entity or to an individual, but also to the scientific community. Truly scientific activity is closely related to the level and quality of

educational and professional levels. Therefore, when analyzing the scientific faith within the scientific community, one should take into account the appropriate qualification level, which is not tightly bounded with formal education (diploma), but correlates with the skills of scientific endeavor.

In this case, faith in science turns into existential support of the scientist, helping him or her to cope with the difficulties that arise during the study, preventing from using methods and principles subjectively perceived as unscientific, since this faith ensures the scientist that he or she has the right criteria for distinguishing science from pseudoscience or a guarantee of truth.

The cognitive potential of scientific faith can be revealed by analyzing the foundations of science, similar to the belief in the existence of an external world independent of the perceiving subject, which underlies all-natural sciences (Einstein, 2003, p. 266).

The most vivid fact of the presence of faith in the basis of science can be illustrated by Gödel’s incompleteness theorem, which shows that if formal arithmetic is consistent, then it necessarily contains an irreducible formula that confirms this consistency (Sosinsky, 2004).

This type of basis of science is not provable in the strict sense of this word. The axiomatic science can be considered either as empirical or scientific hypotheses or as conventions (Popper, 2005). As a result, their acceptance or denial is largely due to the belief that they are true. Moreover, this is not an ordinary faith, but a faith supported by knowledge of the principles of scientific development, reinforced by the phenomenon that can be described as Cartesian intellectual intuition, which provides the scientist with direct self-evident knowledge. This type of cognitive practice is only obtainable by a trained person or scientist.

Without this component of scientific faith, it is impossible to create and formulate the paradigm. As Kuhn (Kuhn, 2012) demonstrated, the adoption of a particular paradigm’s principles and the emergence of consensus in science are largely due to faith. In periods of normal science, researchers in each specific fieldwork based on fundamental ideas, that, as a rule, are not verified or called into question in specific studies. Examples of this kind of basic theory in physics are the concepts of Newton and Einstein.

The application of scientific faith contributes to the unproven acceptance of the initial axiomatic provisions. Besides, it remains while the selection and formulation of the aim of research activity and at various stages of scientific research, including the analysis of scientific problems and hypotheses for their resolution (Kozyreva, 2014).

When formulating hypotheses, the researcher, for objective reasons, does not have the complete of information about the studied object. Hence, an intellectual intuition's role increases, which inextricably links the scientists with a scientific faith. In this case, faith is synthesized with a certain intuitively generalized cognitive experience. The more the subject's consciousness is determined by science, the brighter and more productive is the personal scientific faith.

At the initial stage of cognition, ways to solve a scientific problem often cannot be rationally comprehended. Regularly, this applies to first-year students. However, in order to dwell on a certain hypothesis, to begin its justification and proof, the researcher must be at least at a minimum level to admit its truthfulness, therefore cognition is supported by irrational practices, including faith.

Kepler was distinguished by "incomparable energy and courage, blundering along in the most inconceivable way (to us), from one irrational hypothesis to another, until, after trying twenty-two of these, he fell, by the mere exhaustion of his invention, upon the orbit which a mind well furnished with the weapons of modern logic would have tried almost at the outset" (Peirce, 1877, p. 2).

Based on this, we believe that faith will rationally affirm the truth of a particular hypothesis and give the subject a sanction to use it in further scientific work.

The greatest significance of scientific faith is gained during the production of scientific hypotheses. The higher is the innovative nature of the hypotheses, the more it is based on faith, supported by intuition.

The genuine scientific faith is creative in nature, and is aimed at overcoming the dogma. In this regard, the remark of Michael Polanyi from his previous studies (Polanyi, 2007, p. 41) contrasted

the science, law and the Protestant religion with Catholicism based on the argument that Catholics "are deprived of the right to interpret the Christian dogma: only a priest can have this right".

Scientific faith could be identified as a new tier of the broad kind of identification in contemporary society that could overcome ethnic, territorial, political and other types of stratifications (Zaripov et al., 2017, p. 33). Contemporary culture's "emphasis on science and technology enhances EC<sup>21</sup>, linked to the endeavor to explore the outside world, create and transform things and techniques" (Stoletov et al., 2019, p. 254).

Thus, constructive scientific faith can be applied only to the developed, highly intellectual scientific cognition. This is a relatively rare phenomenon compared to the popular scientific faith, although it simplifies the production of innovative scientific knowledge. Given the application and scale of contemporary science, the role of irrational elements in the production of knowledge tends to be strengthened, at least because the majority of scientists work within the framework of a certain paradigm and axiomatic propositions without questioning them.

The data presented in the study are sufficient to obtain general ideas regarding the significance of scientific faith in scientific cognition and social practice. It provides researchers with a systematic idea of the role of scientific faith in contemporary society and improves our knowledge about cognition and consciousness in general, which positively affects an individual understanding of the self and the objective world. The development of the cognitive and social potential of scientific faith is one of the most popular types of faith contributes to an in-depth understanding of social behavior. The study provides epistemologists with data revealing the specifics of the process of scientific knowledge generation

## Conclusions

The study demonstrated the high social significance and cognitive potential that non-religious secular faith has in modern society.

The results demonstrate that the image of scientific technologies and science is irrationally perceived as the truest reflection of objective

<sup>21</sup> Note: extensive creativity.



reality, which gives a rise to a variety of non-religious faith, including scientific faith that helps to acquire existential confidence and a complete image of reality. The latter is especially relevant in the era of postmodern deconstruction. The role of scientific faith is so important that even religious organizations are forced to resort to it.

The confidence generated by scientific faith is a kind of existential core guiding the scientist in the course of research and preventing him from using methods and theories that are unscientific in subjective view. Thus, scientific faith pre-rationally affirms the truth of the scientific picture of the world, the axiomatic base, as well as a particular theory.

The results of the study can be applied both by HEIs lecturers and be researchers in the field of philosophy of science, epistemology, social philosophy by analysts of social processes, since an understanding of the specifics of cognitive activity is necessary for the formation of a holistic view of a person as a social subject.

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## Light Verb Constructions as Means of Expressing Semelfactive/Multiplicative Meanings in J.K. Rowling's Discourse (on the basis of novels 'Harry Potter and the Sorcerer's Stone' and 'Harry Potter and the Chamber of Secrets')

Сталі дієслівно-субстантивні сполучення як засіб вираження семельфактивного/мультиплікативного значення у художньому дискурсі Дж. Роулінг (на матеріалі "Гаррі Поттер і філософський камінь" та "Гаррі Поттер і таємна кімната")

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### Abstract

The article discusses the problem of light verb constructions in contemporary English on the basis of novels 'Harry Potter and the Sorcerer's Stone' and 'Harry Potter and the Chamber of Secrets' by J.K. Rowling. We (the authors) state that most of light verb constructions denote either semelfactive or multiplicative meanings within the framework of Smith's (1997) theory of aspect in which five situation types, namely states, activities, achievements, accomplishments, and semelfactives are distinguished. The aspectual meaning of a light verb construction is concentrated in its nominal component which can be proved by the existence of *for*, *with*-phrases like *for a better look*, where the verbal component is omitted. The singular of the

### Анотація

Стаття присвячена дослідженню сталих дієслівно-субстантивних сполучень у сучасній англійській мові на матеріалі романів Дж.К. Роулінг "Гаррі Поттер і філософський камінь" і "Гаррі Поттер і таємна кімнат". Ми (автори) стверджуємо, що більшість сталих дієслівно-субстантивних сполучень позначають або семельфактивну, або мультиплікативну дію у рамках теорії аспекту К. Сміт (1997), в якій розрізняють п'ять типів ситуацій, а саме: стан, діяльність, виконання, досягнення та миттєвість. Вважаємо, що аспектуальне значення сталих дієслівно-субстантивних сполучень зосереджено в їх іменному компоненті, що підтверджується існуванням *for*, *with*-

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deverbal noun indicates a semelfactive meaning, whereas the plural form expresses a multiplicative one. The verbal component in such constructions may be represented by 'light' verbs such as *take, have, make, do, give* or 'heavy' verbs like *cast, draw, shoot* etc. The qualitative characteristics of light verb constructions can be intensified by prepositive and postpositive modifiers such as *quick, short, sharp* etc. On the basis of novels 'Harry Potter and the Sorcerer's Stone' and 'Harry Potter and the Chamber of Secrets' by J.K. Rowling 97 and 115 light verb constructions have been singled out and analyzed respectively. The results of the research contribute to the study of verbal plurality in English.

**Key words:** semantics, light verb construction, deverbal noun, semelfactivity, multiplicativity.

## Introduction

The phenomenon of light verb constructions has been in the focus of many linguists' attention and has been analyzed from different perspectives in the 20<sup>th</sup>-21<sup>st</sup> centuries.

However few scientists pointed out that the main categorical meaning of light verb constructions is considered to be semelfactivity, which, in our understanding, is an aspectual meaning that belongs to the internal properties of the verb and characterizes verb lexemes by the number of 'instances' (i.e. indicate a series of repeating identical quanta and a single quantum of a multiplicative action respectively, i.e. denote instantaneous actions), which contributes to the novelty of the research.

Light verb constructions are usually made up of two components. The first one is a light verb, which bears very little semantic meaning in the context of a construction (scientists distinguish six of them: *take, have, make, do, get, and give*). However, it should be mentioned, that sometimes the first element of the construction may be represented by a 'heavy' verb (which has a full semantic meaning, e.g. *cast, catch, exchange, let out, draw*, etc). The second component is a deverbal noun, which is related to the verb and conveys the semantic meaning of the construction.

конструкцій *накшталт for a better look*, де дієслівний компонент опущений. Однина віддієслівного іменника вказує на семельфактивне значення, тоді як форма множини виражає мультиплікативне значення. Дієслівний компонент у таких конструкціях може бути представлений дієсловами широкої (*take, have, make, do, give*) або вузької (*cast, draw, shoot* тощо) семантики. Якісні характеристики сталих дієслівно-субстантивних сполучень посилюються за допомогою препозитивних і постпозитивних модифікаторів *quick, short, sharp* тощо. У романах Дж.К. Роулінг "Гаррі Поттер і філософський камінь" і «Гаррі Поттер і таємна кімната» виокремлено та проаналізовано відповідно 97 та 115 сталих дієслівно-субстантивних сполучень. Результати дослідження сприяють вивченню дієслівної множинності в англійській мові.

**Ключові слова:** семантика, сталі дієслівно-субстантивні сполучення, віддієслівний іменник, семельфактивність, мультиплікативність.

## Theoretical Framework

The in-depth study of these constructions belongs to Beavers, Ponvert & Wechler (2009), Brinton (1998), Brugman (2001), Butt (2010), Chae (1997), Grimshaw & Mester (1988), Kiparsky (1997), Lin (2001), Liu (1997), Tron' (2008), and other linguists. Light verb constructions are very productive in some languages, e.g. Persian, Urdu, and Japanese (Karimi, 1997; Miyagawa, 1989; Matsumoto, 1996; Miyamoto, 2000; Mohammad & Karimi, 1992). Whereas, they are considered to be semi-productive constructions in French, Italian, Spanish and English (Wierzbicka, 1982; Alba-Salas, 2002; Kearns, 2002).

Though traditionally they are called light verb constructions, some scientists call them support verb constructions (Bjerre, 1999; Langer, & Schnorbusch, 2005; Nesselhauf, 2004; Baptista, Rassi & Santos-Turati, 2014); multi-word verbs (Claridge, 2000); complex/composite predicates (Cattel, 1984; Traugott, 1999); complex verbal phrase (Cattell, 1984); transitive copulas (Curme, 1935); "neutral" verbs (Halliday, 1994); stretched verb constructions (Allerton, 2002).

Some broader terms have been used in Longman Grammar of Spoken and Written English (Biber, 1999): 'multi-word verb constructions' or 'verb plus noun phrase' (Longman Grammar of

Spoken and Written English, (Biber, 1999: 403)). Wierzbicka (1982) uses the term 'periphrastic verbal construction' or 'have/give a V frame' (Wierzbicka, 1982: 753) focusing on the verbal nature of the phrase. Stein (1991) refers to 'verbo-nominal constructions' and highlights the opposition of 'simple verb' and 'phrasal verb' (Stein, 1991: 2-3). Algeo (1997) calls them 'expanded predicates' and distinguishes between 'the core expanded predicates' and 'pseudoexpanded predicates' (Algeo, 1997). Thus, it is clear, that linguists interpreted 'light verb constructions' differently.

Analyzing light verb constructions the linguists focus on a prominent semantic or structural feature of them. In *A Comprehensive Grammar of English Language* (1985) they are called as 'the constructions with the eventive object' (Quirk et al., 1985: 751), the *Cambridge Grammar of the English Language* (Huddleston & Pullum, 2002) treats them as 'light verb alternant' as opposed to 'associated verb alternant' (CamGEL, 2002: 290).

Oxford Advanced Learner's Dictionary of Current English (Hornby A.S. & Wehmeier, 2000) uses the term 'idioms containing give/make' focusing on the idiomatic character of the construction (OALD, 2000: 568, 808), while Oxford Collocations Dictionary for Students of English (Crowther, 2002) classifies light verb constructions as 'collocations with common verbs' (OCD, 2002: 10).

Analyzing light verb constructions, Butt (2010) states that the verbal component of these constructions belongs either to auxiliary or to main verbs. He argues that 'light verbs should be recognized as a separate syntactic class' (Butt, 2010: 10). The function of light verbs, in her view, is to 'modulate the event predication of a main predicator in the clause'. She states that 'different light verbs will do so in different ways and some of the semantic contributions are quite subtle'. This is due to the 'flexible interpretation of the underlying lexical semantics' (Butt, 2010: 24).

While some scientists concentrated only on true light verb constructions with certain light verbs, only object-verb pairs are analyzed in other studies (Stevenson et al., 2004, Tan & Cui, 2006, Fazly & Stevenson, 2007).

Light verb constructions are considered to be a 'special type of multi-word expressions, formed from a commonly used verb and usually a noun phrase in its direct object position', which do not

fall into the 'discreet binary distinction of compositional or non-compositional expressions'. On the contrary, they 'stand somewhat in between and are typically semi-compositional' (Tu & Roth, 2011).

According to Stevenson et al., (2004), light verb constructions as well as verb-particle constructions may 'extend the meaning of the component words in interesting ways', but verb-particle constructions involve a wide range of verbs in combination with a small number of particles, whereas light verb constructions involve a small number of verbs in combination with a wide range of co-verbal elements (Stevenson et al., 2004: 1).

Some scientists point out, that light verb constructions are complex predicates in which the verb is semantically bleached ('light') and only expresses aspect, directionality or actionsart of the predicate (Butt, 2010, Wittenberg, 2014). The predicative meaning in these constructions mostly comes from an event nominal within the construction (Beavers, Ponvert & Wechsler, 2009).

However, Ogonovska (1991) believes that because these are verbs of broad meaning, they do not have a semantic weakening. They are indicators of a number of grammatical categories (person, number, time, state, mode of action), without which the realization of predication is not possible. Moreover, she believes that the verbs that fill the position of the first component of light verb constructions, express two contrasting directions: *from* subject and *to* subject. The researcher calls the verbs *give*, *make*, *do* – the centrifugal variant of light verb constructions, which function in this model expressing an active action. She considers the verbs *take* and *get* to be a centripetal variant of the model, which make the models passive. If the direction of the action is irrelevant, the position of the verb component is filled by the verb *have*, which does not express the direction of the action, because it is a static version of the construction (Ogonovska, 1991: 61-62).

It should be mentioned, that in most languages, light verbs are considered to be the most frequently used in the lexicon, e.g. the light verbs *take*, *have*, *make*, *do*, and *give* are among the twenty most frequent verbs in English (Palmer, Gildea & Kingsbury, 2005).

As for the deverbal noun, it may be related to the verb in several ways: the correspondence may be identical, when the noun has the same form as a

verb (*have a chat* cf *chat*, *give a glance* cf *glance*, *take a walk* cf *walk*); it can be derived from a verb (*make arrangements* or *make a decision*); or it may be semantically, but not formally, related to a verb, e.g. *make an effort*, *have a game* (Quirk et al., 1985: 751).

In this abstract we aim at analyzing light verb constructions made up of either light or heavy verbs and a deverbal noun (which is identical to the related verb) preceded or followed by a determinator or not. Thus, we exclude constructions of the type *make arrangements* and those, where a deverbal noun is a part of a prepositional phrase like *take into account*.

### Methodology

The texts constituting the empirical material for the research are two novels by the prominent British writer J.K. Rowling 'Harry Potter and the Sorcerer's Stone' and 'Harry Potter and the Chamber of Secrets'. The corpus comprises two hundred and twenty-one light verb constructions obtained by means of employing the manual selection procedure. The total number of pages of the excerpted texts is seven hundred and two pages.

The methodology in the research presupposes the following methods: narrative (for selecting, rendering and interpreting factual material), the method of discourse analysis (for analyzing excerpts of light verb constructions), classification and systematization (for grouping light verb constructions under study on different source domains), a quantitative analysis of English light verb constructions with qualitative data of their usage. The results of the research can be seen in Tables 1–3 in 3.2.1, Tables 4–8 in 3.2.3.

### Results and discussion

#### Nominal component as a semantic center of light verb constructions

We state that the aspectual meaning of a light verb construction is concentrated in its nominal component, so the singular of the deverbative noun indicates a semelfactive meaning (1), whereas the plural form – a multiplicative one (2), (3).

- (1) *Harry let out a gasp of surprise that no one could her* (Rowling, 1999: 93)
- (2) *Harry had suddenly gone a spectacular dive, which drew gasps and cheers from the crowd* (Rowling, 2008: 233)

- (3) *Professor Dumbledore was standing by the mantelpiece, beaming, next to Professor McGonagall, who was taking great, steading gasps clutching her chest* (Rowling, 1999: 337)

In (1) the deverbal noun *gasp* indicates a semelfactive action, while in (2) and (3) the plural form *gasps* points out a multiplicative one.

In the studied constructions the value of the whole is distributed between the components, i.e. there is a 'distribution of formal and semantic load: the formal core of these structures is the verb, which shows the dynamics of action in time and its mode of action. There is a nominal component that names the action itself' (Keller, 2015: 27). Thus, the semantic center of light verb constructions is the noun component.

Special attention should also be paid to some cases when the verbal component is omitted, which also proves that the aspectual centre of light verb constructions is the deverbal noun. Analyzing the excerpted texts we came across the following cases (11 of them). Compare:

- (4) *But the car disappeared from view with one last snort from its exhaust* (instead of *giving one last snort*) (Rowling, 1999: 86)
- (5) *Mr. Weasley started up the engine and they trundled out of the yard, Harry turning back for a last look at the house* (instead of *to have a last look*) (Rowling, 1999:76)

As it can be seen from examples (4), (5) the verbal component is substituted by *for*, *with-phrases*, but the deverbal nouns *snort* and *look* indicate a semelfactive action.

Nowadays, the lexical restrictions on the formation of structures of this type remain ambiguous. We claim that deverbal nouns can belong to the following groups: breathing, work of vocal cords: *cry*, *chirp*, *gasp*, *giggle*, *sigh*, *shout*, *bray*, *whistle*, *snort*, *scream*, *wail*; actions related to food consumption: *drink*, *swallow*, *gulp*, *snack*, *sip*; body parts movement: *crack*, *flick*, *kiss*, *rick*, *tug*, *turn*, *wink*, *wave*, *rap*, *slap*, *shove*, *thump*, *turn*; actions related to the external / non-sound reaction of the subject: *smirk*, *smile*, *grimace*, *grin*; abstract deverbal nouns that denote emotional reactions: *hate*, *pride*, *dislike*, *like*, *hope*.

#### Structural types of light verb constructions

In J.K. Rowling novels 'Harry Potter and the Sorcerer's Stone' and 'Harry Potter and the

Chamber of Secrets' there are 97 and 115 light verb constructions respectively. It should be mentioned that the verbal component of the analyzed constructions is expressed either by light verbs (146 cases, or 68,9%) or by 'heavy' verbs (66 cases, or 31,1%).

**Light verbs take, have, make, do, and give as a verbal component of light verb constructions**

Give + N (81 cases)

We claim that deverbal nouns in the construction give + N can belong to the following groups:

- 1) breathing, work of vocal cords: belch (1), blast (1), burp (1), cheer (1), cough (1), gasp (2), guffaw (1), heave (1), laugh (4), scream

- (1), shriek (1), snort (1), sob (1), squeal (2), squeak (1), yell (1), yelp (1);
- 2) body movement: jerk (1), jump (1), lift (1), lurch (2), shake (4), start (2), thrill (1), tug (1), wobble (1);
- 3) movement of body parts: jolt (1), flick (1), kick (2), kiss (1), leap (1), pat (1), prod (1), push (1), rumble (1), slap (2), smile (6), tap (2), wave (1), whack (1), wink (2);
- 4) perception: look (16), sniff (1);
- 5) actions related to the external / non-sound reaction of the subject: chuckle (1), creep (1);
- 6) acts of talking: hint (2).

The quantitative analysis of light verb constructions with the verb *give* is represented in Table 1.

**Table 1.**

*Give as a verbal component of light verb constructions (own authorship)*

Types of deverbal nouns	Number of excerpts
breathing, work of vocal cords	22
body movement	14
movement of body parts	24
Perception	17
actions related to the external / non-sound reaction of the subject	2
acts of talking	2
Total	81

Take + N (35 cases)

The light verb *take* is used in the following constructions:

- 1) breathing, work of vocal cords: breath (11), gasp (1);
- 2) actions related to food consumption: gulp (2), bite (2), drink (1), swig (2);

- 3) body movement: turn (1), step (9), jump (1);
- 4) movement of body parts: swipe (1);
- 5) perception: look (3), view (1).

The quantitative analysis of light verb constructions with the verb *take* is represented in Table 2.

**Table 2.**

*Take as a verbal component of light verb constructions (own authorship)*

Types of deverbal nouns	Number of excerpts
breathing, work of vocal cords	12
actions related to food consumption	7
body movement	11
movement of body parts	1
Perception	4
Total	35

Have + N (14 cases)

The construction have + N is represented by the following groups:

- 1) actions related to food consumption: drink (1);
- 2) body movement: fight (1);
- 3) perception: glint (1), look (5), notice (1), watch (1);

- 4) actions related to the external / non-sound reaction of the subject: laugh (2);
- 5) acts of talking: chat (2).

Table 3 presents the quantitative analysis of light verb constructions with the verb *have*.

**Table 3.**

*Have as a verbal component of light verb constructions (own authorship)*

Types of deverbal nouns	Number of excerpts
actions related to food consumption	1
body movement	1
Perception	8
actions related to the external / non-sound reaction of the subject	2
acts of talking	2
Total	14

Make + N (7 cases)

The deverbal nouns in the construction make + N can belong to such groups:

- 1) movement of body parts: grab (2), snatch (1);
- 2) actions related to the external / non-sound reaction of the subject: start (1);
- 3) acts of talking: call (1), remark (1), sound (1).

Get + N (6 cases)

The deverbal nouns in the construction give + N can belong to the following groups:

- 1) breathing, work of vocal cords: breath (1);
- 2) movement of body parts: grip (1);
- 3) perception: look (1).

Do + N (3 cases)

The deverbal nouns in the construction do + N can belong to the following groups:

- 1) body movement: jig (1), somersault (1);
- 2) acts of talking: spell (1).

As it can be seen from what has been discussed above the most frequently used light verbs in the novels 'Harry Potter and the Sorcerer's Stone' and 'Harry Potter and the Chamber of Secrets' are *give*, *take* and *have*. The verbs *make*, *get* and *do* have been used by the author not so often.

#### 'Heavy' verbs as a verbal component of light verb constructions

There are 66 cases of 'heavy' verbs used as a verbal component of light verb constructions, namely: aim (1), allow (1), cast (5), catch (7), come (5), draw (6), drop (1), earn (1), emit (1),

exchange (7), fix (2), flash (1), laugh (2), let loose (1), let out (14), perform (1), shoot (5), swap (1), throw (3), twitch (1).

The deverbal nouns in the construction with 'heavy' verbs can belong to the following groups:

- 1) breathing, work of vocal cords: bark (1), bellow (1), breath (4), gasp (4), groan (1), grunt (1), moan (1), scream (4), screech (1), snort (1), squeal (1), squeak (1), whistle (1), yell (1);
- 2) body movement: halt (1);
- 3) movement of body parts: blow (2);
- 4) perception: eye (2), gaze (1), glance (3), glimpse (3), look (17), sight (2), stare (2), whiff (1);
- 5) actions related to the external / non-sound reaction of the subject: grin (2), laugh (2), smile (2);
- 6) light emission: blaze (1), glare (1), glow (1).

In the research we single out a separate group of light verb constructions, the verb component of which duplicates the semantics of the noun, such as: *to laugh a laugh*, as in (6), (7).

- (6) *Riddle laughed, a high, cold laugh that didn't suit him. It made the hairs stand up on the back of Harry's neck* (Rowling, 1999: 320)
- (7) *"Hagrid's my friend", said Harry, his voice now shaking. "And you framed him, didn't you? I thought you made a mistake, but – "Riddle laughed his high laugh again* (Rowling, 1999: 321)

#### Qualitative characteristics of an action expressed by light verb constructions

The results of the study showed that the most frequently used in these constructions are



deverbal nouns indicating the specifics of visual perception (8–10):

- (8) *She **threw a sharp, sideways glance** at Dumbledore here, as though hoping he was going to tell her something, but he didn't, so she went on* (Rowling, 2008: 20)
- (9) *It was Hermione. Harry **caught a glimpse** of her face – and was startled to see that she was in tears* (Rowling, 2008: 182)
- (10) *Mrs. Weasley was clattering around, cooking breakfast a little haphazardly, **throwing dirty looks** at her sons as she threw sausages into the frying pan* (Rowling, 1999: 44)

As it can be seen from (8–10), there are different deverbal nouns that indicate the visual perception, e.i. *glance, glimpse, look*, etc. In (8) and (9) the singular of the deverbative nouns *glance, glimpse* indicates a semelfactive meaning, whereas the plural form *looks* (10) denotes a multiplicative action.

We believe that the qualitative characteristics of an action in these sentences are expressed by light verb constructions, but prepositive and postpositive modifiers play an important role in these constructions as well (they are expressed primarily by adjectives that characterize and modify the action):

- a) emotional colouring: *bewildered, curious, dirty, encouraging, frightening, furious, hearty, horrible, mystified, nasty, nervous, panicstricken, piercing, quelling, satisfied, stern, terrible, terrified*, etc. (11–13)
- (11) *He **shot Harry a nasty grin** through the gap in his mother's arms* (Rowling, 2008: 33)
- (12) *"Yeh don' know... yeh don' know..." Hagrid ran his fingers through his hair, **fixing Harry with a bewildered stare*** (Rowling, 2008: 60)
- (13) *Professor McGonagall **gave him a piercing look**, but he was sure she had almost smiled. Her mouth looked less thin, anyway* (Rowling, 1999: 92)
- b) length in time: *long, momentary, quick, short, sharp, slow, swift, steady*, etc. (14), (15):
- (14) *"A clever plan," said Dumbledore in a level voice, still staring Mr. Malfoy straight in the eye. "Because if Harry here –" Mr. Malfoy **shot Harry a swift, sharp look** "and his*

*friend Ron hadn't discovered this book, why – Ginny Weasley might have taken all the blame"* (Rowling, 1999: 345)

- (15) *Harry ducked swiftly down behind his cauldron, pulled one of Fred's Filibuster fireworks out of his pocket, and **gave it a quick prod** with his wand* (Rowling, 1999: 197)
- c) intensity: *vague, deep, tiny, light, gentle, tight, small, hefty, severe, weak*, see (16–19):
- (16) *Harry **took a deep breath** and picked up the smallest bottle. He turned to face the black flames* (Rowling, 2008: 297)
- (17) *The effect of this simple sentence on the rest of the family was incredible: Dudley gasped and fell off his chair with a crash that shook the whole kitchen; Mrs. Dursley **gave a small scream** and clapped her hands to her mouth; Mr. Dursley jumped to his feet, veins throbbing in his temples* (Rowling, 1999: 12)
- (18) *Dumbledore **gave a great sniff** as he took a golden watch from his pocket and examined it* (Rowling, 2008: 22)
- (19) *Ron **gave a slight cough**, which might have been hiding a snigger. Draco Malfoy looked at him* (Rowling, 2008: 118)
- d) direction: *upward, backward, up and down, forward* (20–22)
- (20) *A bundle of walking sticks was floating in midair ahead of them, and as Percy **took a step toward** them they started throwing themselves at him* (Rowling, 2008: 139)
- (21) *He **took a step forward** and Neville dropped Trevor the toad, who leapt out of sight* (Rowling, 2008: 283)
- (22) *Harry tried to **take a step backward** but his legs wouldn't move* (Rowling, 2008: 303)

In the sentence (23) the action is characterized by the postpositive attribute *like little hissing fires all over the hall*. Besides the adverbial intensifier *suddenly* outlines the semelfactive action.

- (23) *As Harry stepped forward, **whispers suddenly broke out like little hissing fires** all over the hall* (Rowling, 2008: 131)

The quantitative analysis in Table 4 presents positive, negative and neutral connotations expressed by the determinators in light verb constructions (see Table 4).

**Table 4.**

*Types of light verb constructions according to human emotions(own authorship)*

Types of emotions	Number of excerpts
caused by positive emotions	40
caused by negative emotions	88
caused by neutral emotions	84
Total	212

As it can be seen from Table 4 the number of light verb constructions expressing negative emotions (88 cases out of 212, or 41,5%) is much greater than positive ones (40 cases out of 212, or 18,9%). Neutral emotions are represented in the text by 84 cases which make up 39,6%.

As a result of the research we state that the semelfactive intensifiers, such as *another, quick, sharp, sudden, swift*, and others may be used as part of light verb constructions (24), (25).

(24) “*Very well,*” *Snape cut in. “We’ll have another little chat soon, when you’ve had time to think things over and decided where your loyalties lie”* (Rowling, 2008: 236)

(25) *His broom gave a sudden, frightening lurch* (Rowling, 2008: 199)

The quantitative analysis in Table 5 presents the usage of adjective, pronoun determinators in light verb constructions.

**Table 5.**

*The usage of adjective, pronoun determinators in light verb constructions (own authorship)*

Adjective, pronoun determinators	Number of excerpts
Another	5
Last	1
Quick	2
Single	1
Sharp	3
Sudden	7
Swift	2
Total	21

Besides the semelfactive action can be modified by the intensifier *once*, as in (26)

(26) *Once he caught sight of a flash of gold, but it was just a reflection from one of the Weasleys’ wristwatches, and once a Bludger decided to come pelting his way, more like a cannonball than anything, but Harry dodged it and Fred Weasley came chasing after it* (Rowling, 2008: 197)

There are 7 cases in which the semelfactive action is modified by the intensifier expressed by a numeral *one* as in (27), (28).

(27) *Quirrell took one look at the troll, let out a faint whimper, and sat quickly down on a toilet, clutching his heart* (Rowling, 2008: 187)

(28) *Pulling Aunt Petunia and Dudley into the other room, he cast one last terrified look at Hagrid and slammed the door behind them* (Rowling, 2008: 69)

In (28) the semelfactive action is expressed not only by the numeral *one*, but also adjective *last*

[happening or existing at the end, with no others after (Summers, 2003: 905).

In the sentences (29–32) the qualitative characteristic of multiple action is taken beyond the nomination of the visual act (31), act of breathing (29), (30), (32). This feature is realized in the sentences with the help of postpositive prepositional-noun combinations *of horror* (29), *of delight* (30), *of deep disgust* (31) and *of laughter* (32) respectively.

(29) “*STOP! I FORBID YOU!*” *yelled Uncle Vernon in panic. Aunt Petunia gave a gasp of horror. “Ah, go boil yer heads, both of yeh,” said Hagrid. “Harry –yer a wizard”* (Rowling, 2008: 60)

(30) *It was Peeves. He caught sight of them and gave a squeal of delight* (Rowling, 2008: 169)

(31) *She ruffled her feathers and gave him a look of deep disgust* (Rowling, 1999: 32)

(32) *Seamus Finnigan couldn’t control himself. He let out a snort of laughter that even Lockhart couldn’t mistake for a scream of terror* (Rowling, 1999: 111)

The quantitative syntaxemes of degree, expressed by the adverbs *much*, *little*, *a little*, *few*, *a few*, are used with the predicates indicating either a semelfactive (33), (34) or a multiplicative meaning (35).

(33) *Dumbledore gave his wand a little flick, as if he was trying to get a fly off the end, and a long golden ribbon flew out of it, which rose high above the tables and twisted itself, snakelike, into words* (Rowling, 2008: 137)

(34) *At this, Neville let out a little moan, and Malfoy stopped dead in his tracks* (Rowling, 2008: 259)

(35) *He took a few deep breaths and then forced his face into a smile, which looked quite painful* (Rowling, 2008: 47)

The quantitative analysis in Table 3 presents the use of quantitative syntaxemes of degree in light verb constructions (see Table 6).

**Table 6.**

*The usage of quantitative syntaxemes of degree in light verb constructions (own authorship)*

Quantitative syntaxemes of degree	Number of excerpts
much	0
Few	0
a few	1
little	3
a little	7
Total	11

The comparative syntaxeme in the sentences with light verb constructions may be represented with the following examples, see (36) and (37).

(36) *When I failed to steal the stone from Gringotts, he was most displeased. He punished me... decided he would have to keep a closer watch on me...* (Rowling, 2008: 301)

(37) *The weirdest thing about all these people was the way they seemed to vanish the*

*second Harry tried to get a closer look* (Rowling, 2008: 40)

It is obvious that in (36), (37) the comparative syntaxeme is expressed by the adjective *closer* in a higher degree of comparison.

The great majority of verbal components in light verb constructions are usually used in preposition to the deverbal noun (207 cases out of 212, or 97,6%). Rarely they are used in postposition (only 5 cases out of 212 have been singled out, or 2,4%) (see Table 7).

**Table 7.**

*The usage of the verbal component in preposition and postposition (own authorship)*

Position	Number of excerpts
Preposition	207
Postposition	5
Total	212

In (38) the light verb *to give* is used in postposition to the deverbal noun *look*, whereas in (39) it is used prepositionally to the same noun.

(38) *A braver man than Vernon Dursley would have quailed under the furious look Hagrid now gave him; when Hagrid spoke, his every syllable trembled with rage* (Rowling, 2008: 60)

(39) *Snape gave Harry a swift, piercing look* 187)

The results of the text analysis show that the majority of the cases indicate the semelfactive action (193 cases out of 212, or 91%), while only 19 cases denote the multiplicative situation (9%), see Table 8.

**Table 8.**

*Semelfactive and multiplicative meanings in light verb constructions (own authorship)*

Meaning	Number of excerpts
Semelfactive	193
Multiplicative	19
Total	212

As it has been mentioned before, light verb constructions usually express a multiplicative meaning when the deverbal noun is used in the plural form. However there are some heavy verbs (*swap, exchange*), light verb constructions with which always indicate a multiplicative action (see (40), (41)).

- (40) *“Come now,” he cried, beaming around him. “Why all these long faces?” People **swapped exasperated looks**, but nobody answered (Rowling, 1999: 280)*
- (41) *Harry and Ron **exchanged panicstricken looks**, then threw the Invisibility Cloak back over themselves and retreated into a corner (Rowling, 1999: 270)*

In the novel we single out some constructions of the type to give / take + deverbal noun formed from a semelfactive, where both of them are used to express the corresponding semelfactive meaning. Compare (42) and (43), (44) and (45).

- (42) *Then, without warning, he **leapt up** and started banging his head furiously on the window, shouting, “Bad Dobby! Bad Dobby!” (Rowling, 1999: 24)*
- (43) *Dudley’s mouth fell open in horror, but Harry’s heart **gave a leap** (Rowling 2008: 32)*
- (44) *Ron started to say that he didn’t think so, somehow, but stopped in midsentence when Harry **kicked him hard under the desk** (Rowling, 1999: 280)*
- (45) *The students all hated him, and it was the dearest ambition of many to **give Mrs. Norris a good kick** (Rowling, 2008: 143)*

In sentences (42) and (44) the verbs *to leap* and *to kick* are used as semelfactives, whereas in (43), (45) they are used as parts of light verb constructions *to give a leap* and *to give a kick* to express an even more ‘punctual’ action.

## Conclusion

The findings of the research allow us to conclude that an attempt has been made to study the phenomenon of light verb constructions as one of the main means of expressing semelfactive and multiplicative meanings in contemporary

English. It is notable that although there exist multiple researches on the light verb constructions, most linguists focused their attention on prominent semantic or structural features of them and their idiomatic character, while very few of them pointed out their main categorical meaning – semelfactivity or multiplicativity which accounts for the novelty of the current research.

Semelfactivity is analyzed as an aspectual meaning belonging to the internal properties of the verb characterizing an action by the number of ‘instances’.

In this research light verb constructions made up of either *light* or *heavy* verbs and a deverbal noun identical to the related verb preceded or followed by a determinator or not have been analyzed. We exclude constructions of the type *make arrangements* and those, where a deverbal noun is a part of a prepositional phrase like *take into account*.

Analyzing J.K. Rowling novels ‘Harry Potter and the Sorcerer’s Stone’ and ‘Harry Potter and the Chamber of Secrets’ 97 and 115 light verb constructions have been singled out respectively.

We state that the aspectual meaning of a light verb construction is concentrated in its nominal component which bears the main semantic load. Another fact that encounters for this statement is the existence of *for, with-phrases* like *for a better look*, where the verbal component is omitted.

The deverbal nouns can belong to the groups of breathing, work of vocal cords, body movement, movement of body parts, perception, actions related to the external / non-sound reaction of the subject and acts of talking.

We claim that 91% of the analyzed cases (193 out of 212) indicate the semelfactive action, while only 19 cases denote the multiplicative situation (9%). A multiplicative meaning is expressed in the sentences in which the deverbal noun is used in the plural form whereas the semelfactivity is indicated both by semelfactive verbs and light verb constructions.

The verbal component of the analyzed constructions is expressed either by light verbs (146 cases, or 68,9%) or by 'heavy' verbs (66 cases, or 31,1%). The most frequently used light verbs in the analyzed novels are *give* (81 cases), *take* (35 cases) and *have* (14 cases).

The semelfactive meaning of light verb constructions is often modified by adverbial modifiers such as *suddenly*, *sharply*, *swiftly*, *at once* etc.

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## Inheritance in the occupied territories and in the area of antiterrorism operation: the experience of Ukraine

### СПАДКУВАННЯ НА ОКУПОВАНИХ ТЕРИТОРІЯХ В ЗОНІ АНТИТЕРОРИСТИЧНОЇ ОПЕРАЦІЇ: ДОСВІД УКРАЇНИ

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#### Abstract

The authors of this paper have covered the issues of the features of inheritance in the anti-terrorist operation zone and the occupied territories. The innovations that came into force in 2018 were taken into account. It is specified that the occupied territories in the Donetsk and Luhansk regions are recognized as parts of the territory of Ukraine, on which the armed formations of the Russian Federation and the occupation administration of the Russian Federation have established and exercise general control. Within the temporarily occupied territories, there is a special procedure for ensuring the rights and freedoms of the civilian population, determined by the legislation of Ukraine. Therefore, the procedure for registering inheritance is unchanged throughout Ukraine. The authors analyzed information on the procedure for obtaining inheritance under the law, by testament, and under an inheritance contract. Attention is focused on the fact that inheritance is a derivative way of the emergence of property

#### Анотація

Автори цієї роботи висвітлювали питання особливостей спадкування в зоні АТО та на окупованих територіях. Були враховані нововведення, які набули чинності у 2018 році. Уточнюється, що окуповані території в Донецькій та Луганській областях визнаються частинами території України, на якій створені та здійснюють загальний контроль збройні формування Російської Федерації та окупаційна адміністрація Російської Федерації. У межах тимчасово окупованих територій діє особливий порядок забезпечення прав і свобод цивільного населення, визначений законодавством України. Отже, порядок оформлення спадщини незмінний на всій території України. Проаналізовано інформацію про порядок отримання спадщини за законом, за заповітом та за спадковим договором. Акцентується увага на тому, що спадкування є похідним способом виникнення права власності, а універсальне правонаступництво

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rights, and universal legal succession – the transfer of the entire scope of rights, obligations, and items of property from the deceased to the heirs. Besides, timely and accurate fulfillment of their obligations allows formalizing the inheritance in time following the provisions of laws. Testamentary succession occurs if a deceased person drew up a testament before death, and the testament is valid. In its absence, inheritance occurs under the law. Hereditary succession takes place in the following cases: absence of the testament; invalidation of the testament; death of the heirs indicated in the testament before the opening of inheritance or their refusal to accept inheritance; the testator canceled a previously drawn up testament and did not leave a new one; the testament is judicially declared invalid; if the testament does not cover all the property belonging to the testator.

**Key words:** heir, testator, inheritance, inheritance legislation, certificate of inheritance, legal regime.

### Introduction

The basis of inheritance both by law and by cannot be the subject of an agreement. When inheriting by law, the procedure and conditions of transfer of rights and obligations of the testator are specified in the Civil Code of Ukraine: the property of the testator is divided into equal shares between persons listed by law and called to inherit, in accordance with the established order. In cases where the basis for inheritance is a will, the appointment of heirs, the distribution of rights and responsibilities between the heirs depends solely on the will of the testator in accordance with the principle of freedom of will in Ukrainian inheritance law.

The right to inherit arises on the day of the opening of the inheritance, ie on the day of death of the person or on the day on which he is declared dead. The content of the right to inherit is certain opportunities that can be used by the person who has this right. Among them is the right to accept an inheritance, to renounce it in general or in favor of another person, not to show any interest in it, ie not to take any legally significant actions to accept or renounce the inheritance.

Due to the aggravation of the political situation in the anti-terrorist operation zone, it is not that it is troublesome, but simply impossible to register a heritage in the territory not controlled by Ukraine. This is due to the fact that all documents

– це перехід всіх прав та обов'язків, речей, майна від померлого до спадкоємців. Крім того, своєчасне і точне виконання своїх зобов'язань дозволяє вчасно оформити спадщину відповідно до положень законодавства. Спадкування за заповітом настає, якщо померла особа перед смертю склала заповіт, і заповіт є дійсним. При його відсутності спадкування відбувається за законом. Спадкове правонаступництво має місце у випадках: відсутності заповіту; визнання заповіту недійсним; смерть зазначених у заповіті спадкоємців до відкриття спадщини або їх відмова від прийняття спадщини; заповідач скасував раніше складений заповіт і не залишив новий; заповіт в судовому порядку визнано недійсним; якщо заповіт не охоплює все майно, що належить заповідачеві.

**Ключові слова:** спадкоємець, спадкодавець, спадкування, спадкове законодавство, свідоцтво про право на спадщину, правовий режим.

issued by the authorities of unrecognized republics have no legal force in Ukraine or in the world. Notaries, who play a key role in the inheritance process, have mostly left the anti-terrorist operation zone, and those who continue to operate have not had access to state registers since June 2014. Therefore, of course, the situation required a settlement, which was done.

### Methodological

The following scientific methods were used to solve certain tasks: historical and legal - the history of origin and development civil law relations in the anti-terrorist operation zone; formal-legal - an analysis of the legal nature and structural elements of hereditary relations; system-structural - the concept of heritage as an object is revealed legal relations on inheritance and generalized criteria for establishing the composition inheritance, the inheritance contract is considered and the order is considered inheritance by law and by will; comparative law - foreign experience has been studied features of legal regulation of inheritance abroad; system - the range of researched problems is defined and the offers on their decision are made.

Empirical methods were used at the collection stage required data. Like all collection methods they are fairly simple in implementation and can be used at the stage of analysis of legislation, case



law and opinions of scientists. The observation made it possible to obtain generalized data on modern notaries in the controlled territories. Deduction allowed us to draw a conclusion about a certain element of the set on the basis of knowledge of the general legal framework

### Literature Review

Modern Ukrainian realities require clarification of the principles of inheritance registration in the controlled territories. In this regard, it is important to clarify the general principles of the inheritance procedure and the analysis of normative consolidation. Protection in inheritance is related to the general right to protection. Due to the peculiarities of inheritance law as a sub-branch of civil law, it has its own specifics, which is manifested primarily in the definition of special ways to protect violated unrecognized or challenged rights (Corten, Olivier (2011), Stuart Elden (2005), Gasztold, & Gasztold. (2011), Gusarov & Popov (2020), Gherghina & Silagadze (2018)). Focusing attention, that Modern forced-heirship regimes in the civil law nations share certain commonalities (Streisand & Streisand (2020)). Pursuant to the Spanish Civil Code, the legitima is two-thirds of the estate divided in two equal parts (Lapuente). French inheritance law also restricts a person's right to dispose of assets at death (Crabb, (1995)). In contrast to Spain and France, in Italy the surviving spouse has a greater advantage to a forced share (Vidić Trninić (2021)). Domestic scientists have not studied this issue to a significant extent. However, one should not assume that scientists completely ignore this issue. In particular, the issue of inheritance was considered by Fulei T.I. (Fulei (2015)), Fedorych I.Ya. (Fedorych (2018)). Without diminishing the research results made by these scientists, it should be noted that inheritance in controversial situations was mostly considered in general terms.

### Results and Discussion

Peculiarities of the legal regime on the territory of the Autonomous Republic of Crimea and the city of Sevastopol are determined by the Law of Ukraine No. 1207-VII dated April 15, 2014, as amended on June 17, 2020, "On Ensuring the Rights and Freedoms of Citizens and the Legal Regime in the Temporarily Occupied Territory of Ukraine" (Law of Ukraine, 2020). Peculiarities of state policy on ensuring the state sovereignty of Ukraine in the temporarily occupied territories in the Donetsk and Luhansk regions are determined by the Law of Ukraine

No. 2268-VIII dated January 18, 2018 (as amended on November 26, 2020) "On the Specifics of State Policy on Ensuring the State Sovereignty of Ukraine in Temporarily Occupied Territories in Donetsk and Luhansk Regions" (Law of Ukraine, 2020).

Territorial integrity is the principle under international law that prohibits states from the use of force against the "territorial integrity or political independence" of another state. It is enshrined in Article 2(4) of the UN Charter (UN Charter (1945)) and has been recognized as customary international law (Corten Olivier (2011)). In recent years there has been tension between this principle and the concept of humanitarian intervention. Post-World War II strict application of territorial integrity has given rise to a number of problems and, when faced with reality "on the ground", can be seen as too artificial a construct (Stuart Elden (2007)). Article 1 of Law of Ukraine No. 1207-VII determines that the temporarily occupied territory of Ukraine is an integral part of the territory of Ukraine, which is subject to the Constitution and the laws of Ukraine.

According to Article 1 of Law of Ukraine No. 2268-VIII, the temporarily occupied territories in Donetsk and Luhansk regions are recognized as parts of the territory of Ukraine, within which the armed formations of the Russian Federation and the occupation administration of the Russian Federation have established and exercise general control. The temporary occupation of the territories of Ukraine by the Russian Federation, regardless of its duration, is illegal and does not create any territorial rights for the Russian Federation. In April 2018 PACE's emergency assembly recognized occupied regions of Ukraine as "territories under effective control by the Russian Federation" (UNIAN, 2016).

Polish researchers study antiterrorist operations, structure and role of the Polish counterterrorism system, which is then set against the rising threat posed by state and non-state actors employing hybrid warfare tools (Gasztold & Gasztold (2020)).

The provision of the events of the birth or death of a person in the temporarily occupied territories of Ukraine with the opportunity to obtain legitimate legal confirmation was reflected in the provisions of the Civil Procedural Code of Ukraine (Civil Procedural Code of Ukraine, 2004), while the provisions of civil substantive law have not undergone additions in connection with the social relations of this branch, taking

into account the specifics of establishing and legal registration of facts of birth or death of individuals in the temporarily occupied territory of Ukraine (Gusarov & Popov (2020)). It is quite logical for the legislator to assign this category of civil cases to special civil proceedings (Gherghina & Silagadze (2018)). In this regard, V.V. Komarov fairly pointed out that in all periods of codification of civil procedural law the catalogue of cases of separate proceedings was different (Komarov, Svitlychna, & Udaltsova, (2011)). The legislator only determined their list. Such a technical and legal method of assigning certain cases to the sphere of civil jurisdiction has not found a proper scientific interpretation, and the analysis of the composition of cases of separate proceedings indicated their obvious heterogeneity (Convention on Legal Assistance and Legal Relations in Civil, Family and Criminal Matters, 2005).

The activities of the armed formations of the Russian Federation and the occupation administration of the Russian Federation are illegal. Any act issued in connection with such activities is invalid and does not create any legal consequences, except for documents confirming the fact of the birth or death of a person in the temporarily occupied territories, attached to an application for state registration of a person's birth and an application for state registration of a person's death.

As a result of the occupation of a part of the territory of Ukraine, since March 2014, territories with a disputable status have appeared in Ukraine. The inclusion of the occupied territories of Ukraine in the Russian Federation has not received either international or foreign recognition. Accordingly, for other countries and their jurisdictions, including in the field of inheritance law, the application of the Russian legislation in these territories has no legal consequences, including in terms of property and inheritance relations.

There are about 70 territories with a similar status in the world, and the problem of protecting property and other property rights in these territories occasionally arises with varying degrees of severity and becomes the subject of consideration by various instances, primarily the European Court of Human Rights (ECHR) (Tabachnik (2020)).

For the sphere of private legal regulation and inheritance law, the provisions of Art. 9 of the Law of Ukraine "On Ensuring the Rights and Freedoms of Citizens and the Legal Regime in

the Temporarily Occupied Territory of Ukraine" are important, according to which any bodies, their officials and officials in the temporarily occupied territory are considered illegal if these bodies and officials were created, elected, appointed in a manner not provided for by law. Accordingly, any acts, decisions and documents of illegitimate bodies are considered invalid and do not entail legal consequences. Article 11 of the law regulates property issues and establishes the legal regime of property in the temporarily occupied territory. Acquisition and termination of ownership of immovable property located in the temporarily occupied territory are carried out under the legislation of Ukraine outside the occupied territory. Besides, in the disputed territory, any transaction made in violation of the requirements of this Law and other laws of Ukraine is considered invalid from the moment of conclusion (Fedorich (2018)).

Law of Ukraine No. 1207-VII was supplemented with Article 11-1 under the Law of Ukraine No. 189-VIII dated February 12, 2015 "Ensuring the Implementation of the Inheritance Right", which defines the specifics of the inheritance right. If the place of a testator's death is the temporarily occupied territory, the place of opening of the inheritance is the place where the heirs or other interested persons filed applications for the inheritance (on acceptance of an inheritance, refusal to accept, the presentation of claims by the testator's creditors to the heirs, etc.).

A similar situation regarding hereditary legal relations arises in connection with the opening of inheritance on the territory of certain areas of Donetsk and Luhansk regions, in the anti-terrorist operation zone (Article 9-1 of the Law of Ukraine No. 1669-VII dated September 2, 2014, as amended on December 27, 2019, "On Temporary Measures for the Period of the Anti-Terrorist Operation").

The law that introduced this rule entered into force on March 4, 2015. There is no instruction on its application to the heritage that was opened but was not accepted by anyone before the entry into force (Section 2 of the Law of Ukraine No. 189-VIII). The law applies to relations that have arisen after it entered into force. However, if the relationship arose before it entered into force, the relevant rules apply to those rights and obligations that arose and continue to exist after the entry into force of the law. Thus, the law can also be applied if the inheritance was opened before the entry into force but was not accepted by any of the heirs. Under the provisions of the Law of Ukraine "On Ensuring the Rights and

Freedoms of Citizens in the Temporarily Occupied Territory of Ukraine”, the acquisition of property rights, other rights, and obligations by way of inheritance if the inheritance is opened on the territory of the Autonomous Republic of Crimea and Sevastopol can be carried out exclusively under the legislation of Ukraine. Accordingly, the inheritance formalized based on the legislation of the Russian Federation does not entail ownership of the inherited property for the heirs. Under the Convention on Legal Assistance and Legal Relations in Civil, Family and Criminal Matters (1993), the right to inherit property is determined by the legislation of the party that agrees, on the territory of which the testator had the last permanent residence. In this case, the right to inherit a real estate is determined by the legislation of the Party, which agrees, on the territory of which this property is located (Article 45 of the Convention (Zajda (2017))).

In fact, the procedure for registering an inheritance begins with applying for a notary. The main document for opening an inheritance case is the testator's death certificate. According to our data, such certificates on the Ukrainian form sheets are currently issued in uncontrolled territories. Still, they do not have legal force since they are not registered in Ukrainian registers. Therefore, it is necessary to obtain a certificate from a medical institution about the death of the testator on the territory of the ATO and draw up a death certificate already in the civil registration authorities on the territory of Ukraine. If the certificate has already been submitted, and the death certificate was received in an uncontrolled territory, then it is necessary to initiate a lawsuit to establish the fact of death, which will provide a legal basis for opening an inheritance case (Law 371-IX, 2019).

The exercise of the right to inheritance characterizes the attitude of the subject who has obtained this right arose to the right and the legal consequences of its implementation. The inheritance right consists of powers that have arisen in connection with the opening of inheritance and the decision of a person to inherit based on a will (testament) or the law. The will of a person forms a set of its future powers, which the legislator also refers to the category of exercising the right to inheritance. Thus, the viewpoints of scientists regarding the definition of the concept of the exercise of the right are mainly based on two basic concepts of understanding subjective law as a measure of possible behavior or as the use of the possibilities inherent in the right (Gongalo Yu.B. (2010)).

Current civil law provides that inheritance is conducted by will or by law. If an individual has made a will, thus disposing of his property in the event of death, and has not revoked it, then in the event of his death the inheritance is carried out by will, which is the last will of the testator. Inheritance by will is placed, among the types of inheritance, in the first place in accordance with the dominant priority of the will of the person. This is confirmed by Article 1223 of the Civil Code of Ukraine, which leaves the right to inherit to heirs at law only in the absence of a will or full or partial invalidation, non-acceptance (refusal) of inheritance by testamentary heir, removal from the right to inherit by testamentary heir. Thus, inheritance by law occurs when and because it is not changed by will Gasztold A., Gasztold P. (2011).

As noted above, the right to inherit arises primarily from the testamentary heirs. In some cases, it may occur simultaneously with the heirs at law. This may be the case when a will is made only regarding part of the inheritance or when one of the heirs of the will is deprived of the right to inherit or renounces the inheritance or does not accept it, if he was assigned a certain part of the inheritance. The right to inherit from the heirs at law may arise only in the absence of this right from the testamentary heirs.

However, the legislator provides an opportunity to change the order of obtaining the right to inherit by concluding and notarizing the contract between the interested heirs. Such an agreement must be concluded after the opening of the inheritance and must not infringe the rights of the heir who does not participate in it and the heirs who are entitled to a mandatory share of the inheritance. Such heirs include minors, minors or adult incapacitated children of the testator, incapacitated parents of the testator, incapacitated husband (wife) who survived the deceased.

Such actions are not required if the heir permanently resides with the testator at the time of the opening of the inheritance and within six months set for the acceptance of the inheritance, did not declare the waiver. A minor, a minor, an incapacitated person, as well as a person whose civil capacity is limited, shall be deemed to have accepted the inheritance, unless they have filed an application for refusal to accept the inheritance, which has not been revoked within the period established for its acceptance.

Acceptance of inheritance must be much unconditional. No heir may accept only a part of

the inheritance and renounce another or impose other conditions on which he accepts the inheritance.

As mentioned above, the heir by law or by will have the right not only to accept the inheritance or not to accept it, but also has the right to refuse to accept the inheritance. Thus, such refusal can be both in favor of other heirs, and unaddressed. However, in both cases, the refusal to accept the inheritance must be much unconditional, filed at the place of opening the inheritance within the time limits set for the acceptance of the inheritance. During these terms, the heir who filed an application for renunciation of inheritance, retains the right to revoke such refusal.

It should be borne in mind that the refusal of the testamentary heir to accept the inheritance is possible only in favor of another testamentary heir. In the case of an unaddressed refusal of such an heir, the share in the inheritance, which he had the right to accept, passes to other heirs by will and is distributed equally among them.

The legal heir has the right to refuse to accept the inheritance in favor of one or more legal heirs, regardless of the turn. In the case of an unaddressed refusal to accept the inheritance by one of the heirs at law from the line called for inheritance, the share in the inheritance that he was to accept passes to other heirs of the same line equally.

**Table 1.**  
*Intestacy order of succession.*

the First	the children of the testator (in particular, who were conceived during life and born after his death), husband/wife, parents
the second stage	siblings, grandfather, grandmother (maternal and paternal)
third stage	the testator's uncle and aunt
the fourth stage	persons who lived together with the testator by one family for at least five years before the opening of the inheritance
the fifth order	other relatives of the testator (up to and including the sixth degree of kinship)

The testator can only be a natural person (citizen of Ukraine, foreign citizen or stateless person). The transfer of rights and obligations of a legal entity in the event of termination of its activities is governed by other rules of law, which are not the rules of inheritance law.

The heirs can be both individuals and legal entities, as well as the state and other public law entities. Individuals have an advantage over other subjects: they can inherit both by law and by will. Legal entities, the state, and other subjects of

The legislator determines that regardless of the time of acceptance of the inheritance, it belongs to the heirs from the time of its opening. Legal registration of the right to inheritance is the issuance of a notary at the place of opening the inheritance to the heirs who accepted the inheritance, a certificate of inheritance rights.

When issuing such a certificate, the notary must establish the fact of death of the testator, time and place of opening the inheritance, the grounds for calling for inheritance by will or by law of persons who applied for a certificate, the composition of the hereditary property for which this certificate is issued, and check the fact that such property belongs to the testator, the presence of creditors' claims. Relevant documents must be submitted to the notary to confirm these circumstances by the heirs.

The issuance of a certificate of the right to inherit to heirs, as well as accepted inheritance, is not limited in time. Obtaining such a certificate is the right of the heir, which he can exercise at any time after the expiration of the period established for acceptance of the inheritance.

Inheritance occurs by will or by law. If the deceased (testator) left a will, then the heirs mentioned in it have the right to apply for acceptance of the inheritance. If there is no will, inheritance occurs in order of priority:

public law can inherit only if there is a direct indication of this in the will.

The possibility of being called upon to inherit does not depend on the nationality of the individual and on the state of his/her legal capacity: persons declared incapable by a court due to mental illness or dementia, persons with limited civil capacity and persons in prisons also have the right to inherit. However, a necessary condition for inheritance for an individual is that

he must be alive at the time of the opening of the inheritance.

Persons who intentionally took the life of the testator or any possible heir or attempted to take their lives, persons who intentionally prevented the testator from making, amending or revoking the will and thus contributed to the right to inherit are not entitled to inherit. Themselves or others or contributed to the increase in their share in the inheritance. Parents are not entitled to inherit by law after a child regarding whom they have been deprived of paternity and their rights have not been restored at the time of the opening of the inheritance, as well as parents (adoptive) and adult children (adopted), other persons who evaded obligations.

The right to inheritance consists of a set of powers of heirs arising in connection with gaining of rights and obligations (inheritance) from an individual who died (testator) in the order of universal succession. If we take this position as a basis, then the right to inherit does not arise on the day of opening the inheritance but after the heir accepts the inheritance. Thus, the right to accept inheritance itself is removed from the right to inheritance, since legal powers arise already as a result of its implementation, as well as the right to refuse to accept the inheritance, the right to take measures to protect inherited property, which may not be accompanied by the will of a person to accept the inheritance. In this case, in our opinion, the author reduces the concept of the right to inheritance to the goal or result of hereditary legal relations – inheritance (legal succession), while excluding hereditary legal relations from the concept of the right to inheritance. The right to inheritance is a combination of the following rights that the heir gains in connection with the opening of the inheritance: 1) the right to accept the inheritance; 2) the right to divide the inherited property; 3) the right to confirm the legality of the acquisition of inherited property by notary, judicial or other competent authorities. Yu. B. Honhalo notes that the right to inheritance presents the main content of hereditary legal relations and consists of the heir's ability to receive the inheritance (the object of the hereditary legal relationship). The right to inheritance can be applied in several meanings. First, in its most general form, the right to inheritance is an element of civil legal capacity. In this sense, it belongs to all subjects of civil law. However, the right to inheritance as an existing subjective right of a person, the emergence of which is due to a set of legal facts, does not need to be identified with the ability to

be an heir, which is an element of a person's civil legal capacity, a theoretical possibility that may never be implemented. Second, the right to inheritance can be used in the meaning of "the right (opportunity) to receive inheritance by will". In this sense, the right to inheritance is an element of civil legal capacity (sometimes called "passive testament capacity"). The right to inherit, referred to in Art. 1223 of the Civil Code of Ukraine, can also be characterized as an element of legal capacity, i.e., the ability of a certain person to acquire the subjective right to inheritance. Third, the right to inheritance can be considered as a subjective right arising in the presence of certain legal facts: death of a person or declaring him or her dead (Article 1220 of the Civil Code of Ukraine) (Inheritance under the legislation of Ukraine, 2008). Considering the above, we can conclude that the lack of a unified definition of the concept of the right to inheritance is due to the lack of a unified understanding of its legal nature. Analyzing the positions of scientists regarding the understanding of the right to inheritance, we observe the reduction of the right to inherit only to the right to accept the inheritance or also the right to refuse to accept the inheritance, the identification of the right to inheritance with an element of civil legal capacity through understanding the right to inheritance as the right to be called upon to inherit, etc. The answer to the question of whether we can consider the right to inheritance as a subjective civil right will largely depend on what we mean by subjective civil right. If the subjective civil right is determined only as an element of legal relations, which must always correspond to the obligation of the other party, if the existence of a subjective civil right is impossible without its opposite – a legal obligation, the "right to inheritance" cannot be attributed to subjective civil rights. This is only one of the manifestations of civil legal capacity, including the right to make contracts, wills, and other transactions. At the same time, some authors explain the peculiarities of the legal nature of the right to inherit, its belonging to the secondary rights.

In this context, it is also advisable to consider the concept of "secondary right", which has been studied in the science of civil law for a long time. Discussions about its legal nature and the place it occupies in the civil rights system continue to this day, depending on what is meant by the secondary right: the legal possibility of unilateral expression of the will to lead to the emergence, change or termination of civil relations; subjective civil right; immature subjective right; competence.

The doctrine of secondary rights was initiated by E. Zekkel. Based on the fact that there are special rights along with legal capacity and subjective rights, the author concluded that from a legal point of view, these are subjective rights, the content of which is the ability of an authorized person to generate subjective rights by making a unilateral transaction. Secondary rights must comply with the general requirements for subjective right, be carried out through the direct expression of the will of the person – the transaction, their content should not be direct domination over the object, but the ability to unilaterally create, change or terminate, i.e., transform one or the other according to rights domination Zekkel E. (2007). A secondary right a legal category, broader in a legal capacity, but less than a subjective right. Justifying his theory of “dynamic legal capacity”, the author considered legal capacity in its dynamic state, i.e., the ability of a person to exercise (show) its specific components, subjective right arising from the implementation of legal capacity and is characterized by the fact that it is opposed by the obligation of another person and a secondary right, which cannot be considered a subjective right since it does not give rise to the obligation of a third party to take the appropriate action. V.I. Serebrovskyi, investigating hereditary legal relations, drew attention to the fact that, by its nature, acceptance of an inheritance is a unilateral transaction, i.e., an expression of the will of only one person – the heir, which is not addressed directly to any person and does not require the consent of others. However, this transaction entails some legal consequences concerning the heir and other persons, for example, the testator’s creditors. Hence, from the moment of opening the inheritance, the heirs have the right to inheritance, which is implemented either in the right to accept the inheritance or in the right to refuse it. Based on this, the scientist concluded that the right to accept an inheritance is a special secondary right of the heir. Considering the fact that V.I. Serebrovskyi admitted the existence of subjective civil rights, which are not provided with obligations, the author attributed secondary rights to subjective rights (Serebrovsky (2003)). The main difference between secondary and subjective rights is that two powers are distinguished in the structure of subjective rights: the power to take one’s own actions and the power to demand that the obligated person performs certain actions or refrains from performing them. The validity of demanding someone else’s behavior depends entirely on the obligation that opposes it. It is the presence of such an obligation that makes it possible to

attribute the capabilities of a person to a subjective right (Horak, Daduova, & Osina (2019)). However, if the secondary right is not ensured by the obligation of third parties, then it is logical to assume that its content consists of a single authority, namely the possibility of performing one’s own actions. The secondary right to inheritance consists of one type of right to own actions, namely the right to accept the inheritance and the right to refuse to accept inheritance. That in some cases it is necessary to define the subjective civil law of a person as a secondary right, and in others – such a legal possibility, which is part of the subjective civil right of a person and consists in the implementation of unilateral actions, the consequence of which is the change or termination of the subjective civil right, in order to satisfy the legitimate interests of a person. We believe that the right to inheritance is implemented through the powers arising from the right itself. However, not all such powers are transactions, i.e., actions that are aimed at establishing, changing or terminating civil rights and obligations. We consider the secondary rights in the context of the right to inheritance as powers that are part of the subjective civil right of an individual and consist in the implementation of unilateral actions, the consequence of which is the emergence, change or termination of civil rights and obligations, i.e., transactions, to satisfy the rights protected by law and interests of the person. Analysis of Articles 1269-1285 of the Civil Code of Ukraine allows defining three main (primary) powers within the right to inheritance, which determine the onset of specific legal consequences – legal facts that give rise to, change or terminate the legal relationship of an individual heir in an inheritance relationship: to accept an inheritance; not to accept the inheritance (part 1 of Article 1268 of the Civil Code of Ukraine) and refuse to accept the inheritance (Article 1273 of the Civil Code of Ukraine). Each of these powers is an individual transaction and act, i.e., one performed by the heir personally. Respectively, we refer them to the category of secondary rights (Katchanovski (2014)).

Thus, although it seems logical to attribute the rejection of inheritance by its nature to the non-exercise of a right, we consider it a separate right for our research. This will allow distinguishing more clearly between two legal situations: refusal to accept inheritance and non-acceptance of inheritance, which involve different legal consequences. Thus, in the case of accepting the inheritance, heirs can, by mutual agreement, change the size of their shares in the inheritance,

declare the need to take measures to protect the inherited property, appoint or replace the executor of the will, and are also obliged to fulfill the testamentary disposition, notify creditors about the opening of the inheritance and satisfy the claims of creditors, etc. In case of refusal to accept the inheritance, a person, for example, has the right to withdraw such an application and accept the inheritance within the time period established for accepting the inheritance, or to refuse following the procedure established by law in favor of a third party, to take measures to protect the inherited property, etc. If the heir has not submitted an application for acceptance of the inheritance within the period established by the Civil Code of Ukraine, he or she is considered not to have accepted it (part 1 of Art. 1272 of the Civil Code of Ukraine). If the deadline for accepting the inheritance is missed, a person has the right to submit an application for accepting the inheritance with the written consent of other heirs who have accepted the inheritance (Part 2 of Article 1272 of the Civil Code of Ukraine) or apply to the court to determine an additional period sufficient for submitting an application for accepting the inheritance (part 3 of Article 1272 of the Civil Code of Ukraine). Therefore, we can define the right to inheritance as the right of the heir to accept the inheritance, refuse to accept the inheritance within the time period established by law, or not accept the inheritance, and exercise the powers that are due to the emergence of the right to inherit and provided for by law. Thus, through the secondary rights of the heir, the unity of the content of the right to inheritance is ensured, the vector of development of hereditary legal relations is determined and a set of future powers of the heir is formed, which may change during the period established by law due to the same secondary rights (for example, in the case of withdrawal from the acceptance of the inheritance). Defining the category of secondary rights in the sense of the right to inheritance will not help avoid the identification of the right to inherit with the right to accept the inheritance, or the right to accept or refuse to accept inheritance but also reveal imperfections in legislative techniques.

It is necessary to comply with the deadlines established by the Civil Code of Ukraine. The general term for accepting inheritance is set at six months. Its calculation begins according to Part 1 of Article 1220 of the Civil Code of Ukraine from the date of opening an inheritance. The six-month period for the heirs to exercise their right to inheritance (acceptance, rejection, refusal, cancellation of acts of acceptance, or renunciation of inheritance) applies primarily to

testamentary heirs and heirs entitled to a compulsory share in the inheritance. In accordance with Article 1241 of the Civil Code of Ukraine, they can be minors, adult disabled children of the testator, disabled widow (widower), and disabled parents. Specified persons inherit, regardless of the content of the testament, half of the share that would be due to each of them upon inheritance by law (compulsory share).

The order of the Ministry of Justice of Ukraine “On Urgent Measures to Protect the Rights of Citizens in the Territory of the Anti-Terrorist Operation” (Ministry of Justice of Ukraine, 2014). established that notarial actions and state registration of rights and their encumbrances to real estate located in the occupied territories are carried out, respectively, by state registrars of rights to real estate from those bodies of state registration of rights and private and state notaries of unoccupied districts of Luhansk and Donetsk regions in accordance with the legislation.

The Law of Ukraine “On Temporary Measures for the Period of the Anti-Terrorist Operation” established that if the last place of residence of the testator is a settlement on the territory of which the state authorities temporarily do not exercise or fully exercise their powers, the place of opening of the inheritance is the place of submission of the first application, which indicates the expression of will on the inherited property, heirs, executors of the testament, persons interested in the protection of inherited property, or creditors’ claims. Thus, heirs can apply to any notary on the territory of Ukraine, controlled by the Ukrainian government, with a statement on the acceptance of inheritance.

To apply to a notary with an application for the acceptance of inheritance, it is at least necessary to obtain a certificate of the testator’s death. However, state registration of civil status acts, including the issuance of a death certificate, has been suspended on the territory of the anti-terrorist operation. Civil registration is carried out by any department of state registration of civil status acts located outside the occupied territory. Cause-of-death certificates or other “documents” issued by the occupation authorities do not create any legal consequences and are not recorded in the relevant registers. In this situation, the heirs need to initiate legal proceedings to obtain a court decision on establishing the testator’s death. The decision of the court based on the results of the consideration

of the case does not replace the death certificate, and it is only the basis for obtaining it.

The legislative process for the adoption of the Law of Ukraine 'On the peculiarities of state policy to ensure the state sovereignty of Ukraine in the temporarily occupied territories in the Donetsk and Lugansk regions' was completed in January–February 2018. On January 18, 2018, it was adopted by the Verkhovna Rada. On February 20, 2018, it was signed by President Petro Poroshenko, and on February 23, 2018, the law was published in the official newspaper of the Verkhovna Rada of Ukraine, *Golos Ukrainy*, and the following day it came into force (Gilchenko, Konstantinova & Pashina, 2019).

The war in the southeast of Ukraine continues to be one of the key factors that affects all spheres of life in the country today and dictates the adoption of certain political decisions that are often more populist than objective.

### Conclusions

It should be noted that scientists and the legislator have carried out inefficient analytical work on the materials of judicial and notarial practice, there are no guiding explanations of the highest judicial authorities on problematic issues of inheritance law in the occupied and controlled territories, which creates additional opportunities for abuse, an increase in the number of legal disputes arising about testaments. Moreover, the opportunities provided to the testator remain unfulfilled due to insufficient awareness of citizens about their rights and the procedure for protecting inheritance rights. It is recommended to amend the legislation on the possibility of extending the terms for accepting inheritance from the testator, whose last place of residence or immovable property is located in the ATO zone.

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## Future teachers' training to application of cognitive barriers in professional activities during the Covid-19 pandemic

### Навчання майбутніх учителів застосуванню когнітивних бар'єрів у професійній діяльності під час пандемії Covid-19

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#### Abstract

New challenges for the education system have appeared due to the COVID-19 pandemic that's why it is crucial to improve teachers' training. There are instances that prevent the entire manifestation of the character, his/her self-achievement, self-expression and self-agency. Such instances are barriers that accompany the educational procedure. The aim of the research is to give theoretical substantiation and offer the pedagogical technology, which provides future teachers' training to application of cognitive

#### Анотація

У зв'язку з пандемією COVID-19 перед системою освіти з'явилися нові виклики, тому важливо покращити підготовку вчителів. Існують обставини, які перешкоджають повноцінному прояву особистості, її самореалізації, самовираженню та самоорганізації. Такі обставини є бар'єрами, які супроводжують освітній процес. Мета дослідження – надати теоретичне обґрунтування та запропонувати педагогічну технологію, яка забезпечує підготовку

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barriers in their professional activities in terms of the pandemic caused by Covid-19. The main hypothesis of the research is the idea that specially organized future teachers' training focusing on the formation of their competence in application of cognitive barriers is the basis of their successful professional activities. The research methodology is built on the dialectical unity of such methods: comparative historical method, genetic method, competence-based method, systemic method, synergetic method. The proposed technology is built on the general didactic and specific principles and is accomplished via motivational, procedural, stage of obtaining of experience, analytical and reflexive stages involving appropriate strategies and tactics. It provides the result in formation of future teachers' competence in application of cognitive barriers in professional activities.

**Keywords:** teachers' training, cognitive barriers, professional activity, educational process, the COVID-19 pandemic.

## Introduction

The complicated and contradictory processes caused by the COVID-19 pandemic created new demanding situation for the education system. The answer of troubles throughout and after COVID-19 calls for enhancing instructors' training. High necessities to the fine of vocational and pedagogical teachers' training are described in government documents of Ukraine "Law on Education", "Law on General Secondary Education", "Law on Higher Education". Such national documents as State program "Teacher", the National Doctrine of Education of Ukraine in the XXI century, the Memorandum on Lifelong Education, National Strategy for the Development of Education in Ukraine until 2021 also emphasizes the importance of teacher training. The same requirements are described in the recommendations of the international community: DeSeCo (Definition and Selection of Competencies: Theoretical and Conceptual Foundations), "Common European Framework of Reference for Languages: Learning, Teaching, Assessment", European Qualifications Framework, etc.

The content of the main academic researches and authorities files emphasizes the need of making the situations, technologies and methods for the maximum self-identification of individuals of the educational system. However, as practice shows and spreading of Covid-19 in particular, there are

майбутніх учителів до застосування когнітивних бар'єрів у професійній діяльності в умовах пандемії, спричиненої Covid-19. Основною гіпотезою дослідження є думка, що спеціально організована підготовка майбутніх учителів, спрямована на формування їх компетентності щодо застосування когнітивних бар'єрів, є основою їх успішної професійної діяльності. Методологія дослідження базується на діалектичній єдності таких методів: порівняльно-історичного, генетичного, компетентнісного, системного, синергетичного. Запропонована технологія базується на загальнодидактичних і специфічних принципах і досягається за допомогою мотиваційного, процесуального, етапу набуття досвіду, аналітичного та рефлексивного етапів із застосуванням відповідних стратегій і тактик. Це сприяє формуванню у майбутніх учителів компетентності у застосуванні когнітивних бар'єрів у професійній діяльності.

**Ключові слова:** підготовка вчителів, когнітивні бар'єри, професійна діяльність, освітній процес, пандемія COVID-19.

circumstances that prevent the overall manifestation of the person, his/her self-achievement, self-expression and self-organization and pastime in intellectual and realistic spheres. Such instances are barriers that accompany the educational system.

*The aim of the research* is to give theoretical substantiation and offer the pedagogical technology, which provides future teachers' training to application of cognitive barriers in their vocational activities in terms of the pandemic caused by Covid-19.

*The object of the article* is the process of professional training of future teachers at higher educational establishments.

*The subject of the research* is the pedagogical technology of future teachers' training to application of cognitive barriers in their vocational activities.

*The novelty of the research* is the idea that specially organized future teachers' training focusing on the formation of their competence in application of cognitive barriers is the basis of their successful vocational activities.

## Literature Review

In everyday educational practice a modern teacher faces the problem of heterogeneous groups. In light of the challenges that teachers have faced during the pandemic, dealing with heterogeneous groups is becoming more difficult. Members of these groups are students with different levels of knowledge, different personal and psychological characteristics, they may be children with disabilities, children from immigrant families and disadvantaged families, they may be representatives of ethnic minorities, etc. So a teacher really should have such competence that will allow him/her to use individualized and differentiated approaches in order to work effectively within a heterogeneous group through distance and face-to-face learning in the time of COVID-19.

The main concepts of education, the issues of future professionals' training are discussed by scientists: E. Terhart (Terhart, 2003), Ayas, A. (Ayas, 2013). Innovations in education are the subject of study by N. Kabus, S. Kara, S. Khatuntseva, S. Knysh, M. Portyan, O. Zhernovnykova, (Khatuntseva et al., 2020), I. Demchenko, B. Maksymchuk, V. Bilan, I. Maksymchuk, I. Kalynovska (Demchenko et al., 2021).

Cognitive functions of the brain and intellectual development of a person in the virtual educational process are covered in the works of A. Chebykin (1992), M. Smulson (2015), A. Olteanu (2019), V.-A. Briciu, A. Briciu (Briciu & Briciu, 2020), Y. Kalinkara (2021)

We see the solution to this problem in developing competence of future teachers in application of cognitive barriers in their vocational activities.

- There are many perspectives on the nature, essence, functions and kinds of barriers. A number of researches disagree on their sizable parts, others have arguments approximately the simple positions (Glazkova, 2013a). Depending on the method of expertise the essence of this phenomenon, scientists distinguish different aspects of barriers. Today, in pedagogical technology the issue of pedagogical barriers has no longer been absolutely investigated. However, some instructions of the studies are mentioned:
- The subsequent forms of barriers within the pedagogical procedure are described: cognitive obstacles A. Domyreva (Domyreva, 2002), A. Pylypenko

(Pylypenko, 1995); limitations of teachers' expert sports F. Vafin (Vafin, 2004), I. Glazkova (Glazkova, 2013b), N. Gorodetska (Gorodetska, 2009); barriers of innovative self-success of students (Karamova, 2003); barriers of communication (Zalyubovska, 1984); barriers of learning activities (Barvenko, 2004; Glazkova, 2013a; Chernenko, 2000; Yakovleva, 2003); barriers of socialization (Yelnikova, 2004); boundaries of professional self-identity (Massanov, 2014);

- scientists focus at the examine of conditions of barriers overcoming within the pedagogical technique (Verbytskaya, 2003), they investigate tactics and strategies, which are beneficial in barriers overcoming (Gubareva, 2001), (Marakhovskaya, 2002);
- researchers N. Chernenko (Chernenko, 2000) consider a barrier as a supply of development of a human character. The improvement of someone is the result of barriers overcoming; L. Yaroslavskaya, (Yaroslavskaya, 2013), Ye. Zalyubovskaya (Zalyubovskaya, 1984).
- S. Khatuntseva researches the didactic price of pedagogical limitations in the method of formation of destiny instructors' readiness to self-perfection (Khatuntseva, 2015; Khatuntseva, 2016), (Glazkova et al., 2020).

The phenomenon of cognitive barriers is described inside the numerous fields of science and it is included via many researchers. Barriers of cognitive pastime as an impediment in innovative seek have been investigated by B. Kedrov (Kedrov, 1987). The phenomenon of cognitive barriers as an crucial part of the educational activity acquired in addition improvement in studies of A. Domyreva (Domyreva, 2002), A. Pylypenko (Pylypenko, 1995), L. Yaroshchuk (Yaroshchuk, 2019) and others. N. Marakhovskaya, (Marakhovskaya, 2002) described the essence of cognitive barriers as difficulties in mastering different subjects (Glazkova, 2013a).

However, it ought to be cited that the phenomenon of instructors' education of usage cognitive barriers in their vocational activities has no longer been covered yet. We consider that the problem of the most appropriate application of cognitive barriers is still open – scientists have given general theoretical characteristics of this problem (Glazkova, 2013a). But there is a lack of practical recommendations based on pedagogical experiments.

## Methodology

The research methodology is built on the dialectical unity of such methods:

- The comparative historical method determines the genesis of the pedagogical barrier; future teacher's competence in preventing and overcoming pedagogical barriers is determined by the functioning of his abilities (psychological, physiological, etc.), which requires their constant study and conscious use;
- The genetic method permits to reveal the essential characteristics of the cognitive barrier, which makes it possible to understand the essence of cognitive barriers in the educational process, provides a socio-cultural analysis of the formation and development of cognitive barriers; future teacher's competence to prevent and overcome barriers is provided by individual potential of a person and external resource opportunities;
- The competence-based method allows exploring the features of cognitive pedagogical barriers during the COVID-19 crisis; the competence to prevent and overcome barriers is an integrated personal new formation that reflects his theoretical and practical readiness to act;
- Systemic method is used for a holistic understanding of the completeness of the use of cognitive barriers by future teachers in their professional activities; the competence to prevent and overcome barriers is a complex system, which is formed of various components (structural, functional) and elements, the functioning of which is ensured by system-forming connections, relationships and factors;
- Synergetic method helps to give the characteristic of cognitive barriers as an open system that changes in accordance with the multifactorial interaction of the processes of self-education, self-perfection and self-development of the future instructor in the context of COVID-19; future instructor's competence in preventing and overcoming pedagogical barriers is the result of the interaction of professional and personal structures, and its formation is connected with conditions of professional activity.

## Results and Discussion

Representatives of Organization for Economic Co-operation and Development (OECD) defined

key competences for a a hit life and properly-functioning society based on critical thinking and holistic/included method: *acting autonomously* (ability to guard and assert one's rights, hobbies, duties, limits and desires; potential to shape and behavior lifestyles plans and private tasks; capability to behave within the big image/ the massive context); *the use of tools interactively* (capacity to use a language, symbols and texts interactively; capacity to apply information and data interactively; capacity to use (new) generation interactively); *functioning in socially heterogeneous corporations* (capability to narrate well to others; ability to cooperate; capacity to manipulate and resolve struggle).

According to these points we suppose that teachers with already formed competence in application of cognitive barriers in their vocational activities will be prepared for integration into the educational process of the different categories of students, namely to organize the educational process with heterogeneous groups successfully in the context of COVID-19.

This research is based on the understanding of professional teacher's competence as a certain his/her professional training level. This competence provides the executing of the functions and tasks of professional activities.

### *The essence of cognitive barriers in an educational process*

Built on the analysis of the pedagogical sources, we should mention that the "barrier" is traditionally considered in the context of such concepts as: obstacle, resistance, inhibition, prohibition, blocking, which are restrictive, and attempts to determine it are based mainly on psychological positions, despite the fact that dissertations are made in different specialties of pedagogical science.

For the first time in the scientific sources, the concept "pedagogical barrier" is defined by L. Yaroslavska, (Yaroslavska, 2013) as a complex pedagogical phenomenon caused by internal and external factors and inherent in all subjects of the educational process. The barrier hinders, restrains, reduces the effectiveness and success of this process.

The researcher I. Glazkova (Glazkova, 2013b) states the essence of binary concept "pedagogical barrier". On the one hand, this term is seen as a complicated pedagogical phenomenon that interferes, holds back and reduces the efficiency

and fulfillment of the educational process (negative function), and, consequently, calls for prevention. On the opposite hand, it is far a pedagogical tool that stimulates and increases the effectiveness of the instructional technique of individuals' activity (positive function) through its overcoming.

Thus, based on the definition, we can speak about the expediency of creation of a cognitive barrier in the educational process. But the main condition of its creation is further overcoming. So, a cognitive barrier is a pedagogical tool, which stimulates the development of potential possibilities of an individual and it is characterized by developing nature.

Analyzing and summarizing approaches to the definition of "cognitive barrier", it should be noted that a barrier is a generic term, from which such kind of barrier as "educational barrier" comes. In its turn, a cognitive barrier is a type of pedagogical barrier. According to the binary nature of pedagogical barrier, it is considered as a pedagogical tool, which activates the educational and cognitive activity of the subjects of educational process through its overcoming in the period of the COVID-19 pandemic.

The research is focused on the fact that a cognitive barrier should be impetus for independent work to overcome it and do not cause confusion or frustration in participants of a pedagogical process.

Regarding the classification of cognitive barriers, the analysis of the scientific literature suggests that the phenomenon of typology of cognitive barriers is the most important nowadays. In

general, psychological, pedagogical meanings, they are classified differently, because researchers understand their essence differently, and as a consequence, the classification is based on different approaches.

The development of a typology of cognitive barriers is of important practical value, as the detecting of barriers in the early stages of their manifestation helps to optimize joint activities and increase the effectiveness of learning.

We have identified this classification of cognitive barriers, the main criterion of which is the stage of getting new knowledge. The generally accepted stages are:

- Perception of educational material;
- Processing and interpretation of academic information;
- Reproducing of information, transfer and interference educational activities;
- Creative application of knowledge and skills.

So, according to each level we've got prominent the associated cognitive barriers:

- Barrier of perception of educational material;
- Barrier of processing and understanding of educational information;
- Barrier of reproduction of educational information;
- Barrier of transfer and interference educational activities;
- Barrier of creative application of knowledge and skills (Table 1).

**Table 1.**  
*Cognitive barriers and their characteristics.*

<b>The type of cognitive barriers</b>	<b>Functional characteristic</b>
<p><b>1</b></p> <p><i>1. Barrier of perception of educational material</i></p> <p><i>2. Barrier of processing and understanding of educational information</i></p> <p><i>3. Barrier of reproduction of educational information</i></p> <p><i>4. Barrier of transference and interference of educational activities</i></p> <p><i>5. Barrier of creative application of knowledge and skills</i></p>	<p><b>2</b></p> <p>difficulty in recognizing the same but in another form; –            frequent misuse of terms; –            inability to repeat explanations; –            “disconnection” at the lesson; –            inability to answer questions during the explanation –            inability to retell the material in brief; –            inconsistency of the theoretical position with the structure of the theory; –            compiling the wrong algorithm for solving the problem; –            incorrect explanation of why the task is given, what knowledge it –            consolidates;            cannot specify a rule that can be followed when performing an exercise –            or a task            bringing the task under the already known general type; –            inability to think when solving a problem; –            lack of answers to the teacher's questions that require reproduction and –            interpretation of the text            indistinguishability of essential signs of action from insignificant, –            focusing on external signs, essential signs are perceived as separate and            not in full;            formation of skills and abilities without full understanding and –            awareness of the action;            inability to formulate something new that is obtained as a result of –            solving the problem            weak orientation in non-standard unexpected situations; –            refusal of creative work; –            lack of desire to independently acquire knowledge of a theoretical –            nature;            insufficient self-assessment of own achievements in cognitive activity; –            lack of desire to form and develop own plan; –            inability to see the problem of the task; –            weak ability to combine existing knowledge, skills and abilities in –            obtaining new ones</p>

***Future teachers' competence in application of cognitive barriers in professional activities***

Reforming the educational system in the world is not possible without new studies in the area of teacher training, as the specifics of the teacher’s job dictates the need to saturate his/her training with professional methods and knowledge (Glazkova, 2013a). With the help of such technologies the teacher is able to perfect the art of managing the process of education and training of the personality. The problem of professional training of a future teacher and the development as a socially active person is highlighted in pedagogical works of progressive researchers.

On the basis of the theoretical approaches

developed by scientists, we see that the readiness of the future teacher for teaching is not an inborn feature of the personality, but the consequence of special training at universities.

So, teachers’ competence in application of cognitive barriers consists of some structural components. The content of them is determined by the typology of cognitive barriers. In our study we identify *the competence of would-be teachers in application of cognitive barriers in professional activities as an integrated, dynamic formation of a would-be teacher, the result of the training on the basis of theoretical information (the nature of cognitive barriers, their types and functions); practical abilities of artificial creation and overcoming of cognitive barriers; personal traits (barrier resistance) that*

*encourage, motivate, modify educational and professional activities by using the most effective method (creation or overcoming) of cognitive barriers in the pedagogical process* (Glazkova, 2013a).

We think that the formation of would-be teachers' competence in application of cognitive barriers is supplied by the substantiation, development and implementation of the pedagogical technology, which is characterized by interdependent relationships between its parts (Glazkova, 2013a). The aim of the technology is to form the noted-above competence.

Among the structural elements of competence, we distinguish motivational, personal, cognitive, practical and reflective components.

*The motivational component* of competence in application of cognitive barriers is characterized by *interest* in the acquisition of this competency, *needs* to succeed in careers; *value attitude* to prospective of professional activities and acquisition of the competence during the professional training.

*The personal component* of competence in application of cognitive barriers includes *quality of future teachers* as personalities that enable them to perceive adequately cognitive barriers and to control their own emotional expressions and behavior and quickly choose of optimal tactics for effective application and overcome it.

*The cognitive component* includes the *system of knowledge* about the nature, typology, function, reasons of cognitive barriers, appearance, tactics of creation and overcoming cognitive barriers.

In the time of COVID-19 the cognitive component is implemented only on the condition of mastering the relevant skills that are translated into *practical component*. The creation, application and overcoming cognitive barriers requires the involvement of different skills (*diagnostic and prognostic, constructional, intellectual, communication*), the choice of which depends on its type. And also, as the key skill of this component we identify the creation of cognitive barriers.

Forming professional competence is impossible without reflexive mechanism that helps penetrate into the internal state, intentions, motives, thoughts and values of another person. Therefore, an important component of competence in application of cognitive barriers is *reflective component* that forms the skills of

introspection and self-assessment of own professional and pedagogical activity and the ability to self-improvement.

### ***Pedagogical technology of future teachers' training to application of cognitive barriers in professional activities***

The effectiveness of the pedagogical technology depends on certain conditions.

Pedagogical conditions for the forming the future teachers' competence in application of cognitive barriers in professional activities are determined as deliberately created circumstances of a training process. They are the *result of systematic and careful choice, construction, application elements of content, organizational forms, methods and means of education that make the future teachers' training successful*.

The effectiveness of the formation of would-be teachers' competence in application of cognitive barriers in professional activity is achieved if there are certain *pedagogical conditions* such as:

- stimulation would-be teachers to the educational and cognitive activities;
- special arranging of theoretical information for future teachers about cognitive barriers and their usage in professional activities;
- encouragement of gaining practical experience of effective use of cognitive barriers in an educational process (Glazkova, 2013a).

Substantiating the first pedagogical condition - the creation of future teachers' positive motivation to educational and cognitive activities - is based on the idea that the use of cognitive barriers involves the stimulation of students' interest in future teaching; motivation to use cognitive barriers; ambition for success and professional growth; awareness of the necessity of the development of professional skills, in particular in the use of cognitive barriers in teaching during the pandemic COVID -19.

The second condition of would-be teachers' preparation for the use of cognitive barriers is providing a special structuring of educational material aimed at ensuring that future teachers master the information about cognitive barriers and their usage in professional activities.

This condition is based on the idea that the use of cognitive barriers means, firstly, knowledge of their nature, functions, kinds, causes of existence; secondly, knowledge of the nature,



basic ideas and principles of the process of creating cognitive barriers in professional activities, as well as awareness of the opportunities of their usage in the educational process.

The third pedagogical condition – ensuring the acquisition of practice in the proper use of cognitive barriers – involves the direct improvement of skills in the use of cognitive barriers in the educational process.

By the use of cognitive barriers in the educational process, it is seen the organization of educational activities that include the technology of creating barriers under the guidance of the teacher and the independent activity of students to overcome them.

The set of pedagogical conditions is realized through the structural and functional technology of future teachers' preparation for using cognitive barriers in professional activity that defines dialectical unity, interrelations and relations between the purpose of training, pedagogical conditions, stages of preparation (motivational-orientational, semantic-procedural, gaining experience, reflexive), components of the readiness of future teachers to apply cognitive barriers in professional activities (motivational-value, personal, cognitive, activity-practical, reflexive), learning outcomes).

The structure of pedagogical technology of formation in would-be teachers the competence

in application of cognitive barriers in their professional activities is represented in the picture (Fig. 1).

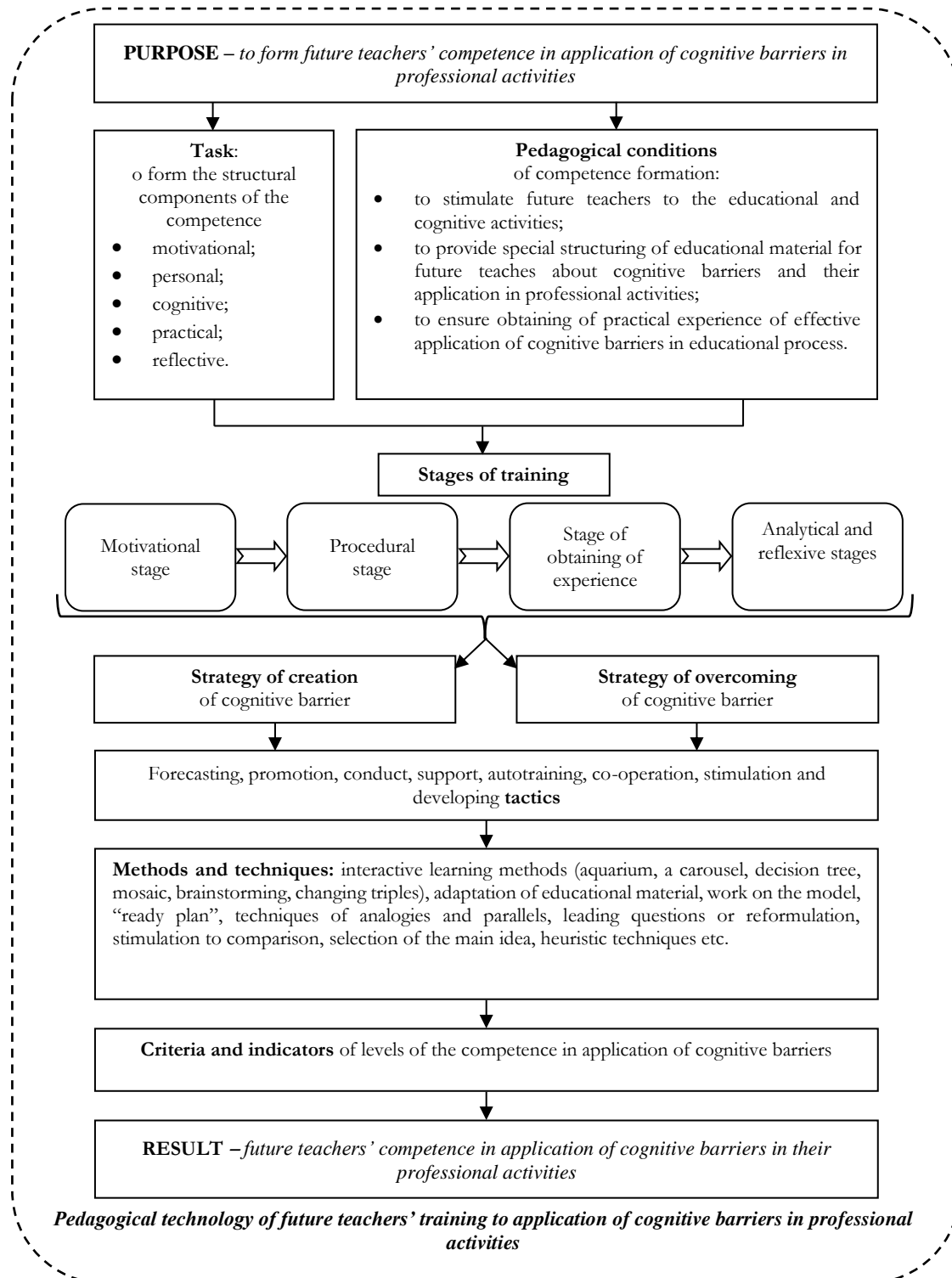
The formation of the mentioned-above competence has the following stages: motivational, procedural, stage of obtaining of experience, analytical and reflexive.

The stages do not have rigid boundaries, because it is not possible to distinguish a single process, to determine its connecting links, however, each component-stage needs appropriate content and organizational pedagogical content.

Motivational and value stage – the point of awareness of the necessity of the usage of cognitive barriers in professional activities, the consolidation of positive learning motives.

The substantive-procedural stage involves the formation of a system of knowledge, skills and abilities of would-be teachers.

The stage of gaining experience includes the improvement of practical skills, mobility of knowledge, their operation in the application of cognitive barriers, the competence to focus their activities on solving the main tasks of educational and cognitive activities, which is represented in cognitive activity and independence of students. At the stage of gaining experience, would-be teachers acquire theoretical knowledge as well as practical skills (Glazkova, 2013a).



**Figure 1.** Pedagogical technology of would-be teachers' training to application of cognitive barriers in professional activities.

The reflexive stage provides the formation of future teachers' reflexivity as a quality, which involves the competence to analyze own professional activities and to change on the basis of the analysis of the activity itself. Moreover, it should be said that reflection allows integrating

of all the acquired knowledge, skills and abilities into a holistic personal development, which is the future teachers' readiness to apply cognitive barriers in professional activities.

Taking into account the binary nature of a barrier, we propose two strategies: the strategy of creation and the strategy of overcoming of cognitive barriers (Glazkova, 2013a).

We highlighted the following tactics: forecasting, promotion, behaviour, support, autotraining, co-operation, stimulation and developing tactic in the frame of the strategy of creation and overcoming. Each of tactics includes using appropriate methods and techniques (Glazkova, 2013a). The choice of tactics depends on the heterogeneity of individuals of the educational process, and also is determined by sorts of cognitive barriers and situations of the educational process in the time of pandemic.

Thus, above-mentioned theoretical points have been used to prove the important role of the future teachers' readiness to apply cognitive barriers in professional activities. It is stated that the efficiency of its formation is provided by the developed step-by-step technology.

## Conclusions

Having analyzed and generalized the approaches to the definition of the concept "cognitive barrier" by scientists, it should be noted that the barrier is a generic concept from which such a type as "pedagogical barrier" originates. In turn, the cognitive barrier of educational activity is a type of pedagogical barrier, which in addition to the binary essence, also has a multifunctional character, due to which, as a teaching instrument (subject to optimal complexity), it boosts educational and cognitive activity of students during the COVID-19 pandemic and has a developmental impact on the individual.

The mechanism of the cognitive barrier is the mobilization of internal resources, which causes deviations from regulatory activities and stimulates the restructuring of the psychological structure of the individual. Cognitive barriers arise where there is a mismatch between the existing knowledge system and the new requirements.

Depending on the criteria that researchers put forward for the formation, functioning or impact of cognitive barriers on educational activities, there is a wide variety of these barriers. We believe that within the educational activities of students, the main criterion of the typology of cognitive barriers should be the procedural component of the stages of learning new knowledge. It is also appropriate to mention

natural barriers that appear forthwith (spontaneously) and synthetic ones that are built pedagogically and purposefully.

Taking into account the existing classifications of cognitive barriers, as well as the procedural component of subjective difficulties in students' learning activities during a pandemic, we have identified such a classification, the main criterion of which is the stages of learning new knowledge. Such stages include perception of educational material, clarification and understanding of educational material, reproduction of information, transference and intervention of educational setting, creative application of knowledge and skills. The corresponding cognitive barrier is determined to each of these stages, in particular: the barrier of perception of educational material; the barrier of processing and comprehension of educational information; the barrier of reproduction of educational information; the barrier of transference and interference of educational activities; the barrier of the creative application of knowledge and skills.

Teacher's readiness to use cognitive barriers in professional activities is interpreted as a complex, dynamic quality of the teacher's personality, which is characterized by a certain level of formation and functioning in the unity of motivational-value, personal, cognitive, activity-practical and reflective components and determines the level of teachers' preparation for applying cognitive barriers in professional activities (Glazkova, 2013a).

Thus, barriers play a specific role in the advancement of an individual. They can be considered as the body's response to obstacles that interfere with life. Learning activity is no different as at each phase of which there are so-called cognitive barriers - components of which of its component that block cognitive process, avert the full expression and original self-expression of the individual, lead to general displeasure with receiving new knowledge and low efficiency. In turn, the cognitive barrier also motivates, encourages, raises the effectiveness of the pedagogical activity (positive functions) by combating it and in addition to the binary essence has a multifunctional nature, so that, as a teaching instrument of optimal complexity, it boosts educational and cognitive student activities and has a developmental influence on the individual. What is more, based on the definition, it is momentous to note the feasibility of its synthetic creation in the learning process in order to overcome it in the long term, which

contributes to the activation and dynamization of educational activities.

Thus, the application of certain pedagogical conditions for the preparation of potential teachers for the use of cognitive barriers in professional activities, firstly, will form a motivational and value readiness to carry out such activities; secondly, it will give an opportunity to students to get general and vocational knowledge that reflects the special features of the use of cognitive barriers in the educational process; thirdly, it will mode the professional skills and abilities which are necessary for the effective application of cognitive barriers (Glazkova, 2013a). Adhering to set pedagogical conditions, the result of such training is the guaranteed achievement of the main goal - future teachers' readiness to apply cognitive barriers in professional activities.

So, the proposed technology has such characteristics given below:

- it grounds on the general didactic and specific principles;
- it hinges on the pedagogical conditions;
- it is translated through the tasks focused on forming the structural components of the competence;
- it is received through motivational, procedural, stage of obtaining of experience, analytical and reflexive stages involving appropriate strategies and tactics;
- it is based on the criteria and indicators of levels of the competence;
- it expands future teachers' competence in application of cognitive barriers in professional activities.

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## Criminal liability for obstructing the legal activity of a defense counsel in court proceedings

### Кримінальна відповідальність за перешкоджання юридичній діяльності захисника у судовому розгляді

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#### Abstract

A fair trial is guaranteed by the efficient work of a lawyer aimed at protecting the client accused of committing an offense and the state protection of advocacy. The purpose of the study was to determine the criminal law protection aimed at ensuring the safeguarding the defense counsel's activity in court proceedings considered in the context of international standards. Empirical and theoretical methods of research, as well as the method of comparative analysis were used for a comprehensive consideration of the subject. The grounds for criminal liability for obstructing the legal activity of the defense counsel in court proceedings are elaborated. Criminal liability for a crime against justice may take the form of a fine, corrective labor, imprisonment or suspension from office. The protection of the lawyers' rights and international guarantees of safe advocacy involves the adoption of measures at the state level that will enable lawyers to perform their professional duties without intimidation, pressure, obstruction and interference, as well as measures to eliminate the

#### Анотація

Справедливий судовий розгляд гарантується ефективною роботою адвоката, спрямованою на захист клієнта, обвинуваченого у вчиненні правопорушення, та державним захистом адвокатури. Метою дослідження було визначення кримінально-правової охорони, спрямованої на забезпечення захисту діяльності захисника у судовому розгляді в контексті міжнародних стандартів. Для всебічного розгляду предмета використовувалися емпірико-теоретичні методи дослідження, а також метод порівняльного аналізу. Розкрито підстави кримінальної відповідальності за перешкоджання законній діяльності захисника у судовому розгляді. Кримінальна відповідальність за злочин проти правосуддя може бути у вигляді штрафу, виправних робіт, позбавлення волі або відсторонення від посади. Захист прав адвокатів та міжнародних гарантій безпечної адвокатської діяльності передбачає вжиття на державному рівні заходів, які дозволяють адвокатам

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administrative, economic or other sanctions. Further research will address the advocacy security to determine and substantiate the effective means of its criminal protection.

**Keywords:** defense counsel, obstruction, advocacy, legal aid, intervention, liability.

## Introduction

The rule of law recognizes the rights and freedoms of every person as the highest social value. In order to protect them properly, the rule of law undertakes to improve the socio-political system and to develop public-law mechanisms for the implementation of its obligations to the individual, as well as to create conditions for the professional activities of defense counsels in court proceedings. Legal aid is an integral part of a civilized state and one of the main functions of jurisprudence. The need for legal assistance in resolving conflict cases will always exist, as the majority of people lack all the special knowledge needed to protect their rights in the court of law.

The guarantees for defense attorneys provided under the UN Guidelines on the Role of Lawyers, given their special importance for ensuring everyone's right to defense, require high-quality legal protection and the establishment of means of criminal liability for a number of illegal acts that impede the lawyer's free performance of his professional and procedural duties as well as the exercise of relevant rights. According to the Council of European Bar Associations and Legal Societies, in 2020 there were 112 criminal proceedings related to obstructing the legal activities of defense counsels, which took place in 36 countries. Of these, 12% were murder, attempted murder or death; 51% – arrest, detention, prosecution; 29% – threat, assault, harassment, abuse, travel ban, intrusion, abduction; 8% – deprivation of the right to practice law, attack on the independence of the Bar (Cuomo, 2020, p. 19). Therefore, in view of the abovementioned statistics, with a significant number of facts of actual interference in the legal profession, violations of guarantees of professional activity of defenders, obstruction thereof, few cases of criminal liability worldwide are recorded officially. Therefore, the criminal law protection of advocacy is still not ensured effectively enough, which determines the relevance of the chosen research topic.

виконувати свої професійні обов'язки без залякування, тиску, перешкод та втручання, а також заходів щодо усунення адміністративних, економічних чи інших санкцій. Подальші дослідження будуть спрямовані на захист адвокатської діяльності, щоб визначити та обґрунтувати ефективні засоби її кримінального захисту.

**Ключові слова:** захисник, непрохідність, адвокатська діяльність, юридична допомога, втручання, відповідальність.

Thus, the purpose of the article is to determine the criminal law protection guarantees aimed at ensuring the safeguarding the defense counsel's activities in court proceedings considered in the context of international standards, as well as probing into criminal liability for their violation. To achieve the goal of the article, the following tasks are set:

- to identify and characterize international guarantees of safe advocacy in court proceedings;
- to analyze the criminal law of the EU countries in order to establish criminal liability for obstructing the legal activities of the defense counsel in court proceedings;
- to single out the key problems of applying criminal sanctions to offenders who committed a socially dangerous act in order to ensure safe advocacy and elaborate the ways of addressing them.

## Literature Review

The issues of advocacy security and its components, as well as the problems of criminal law protection in the field of justice have been addressed by many scholars. For instance, Chow and Calvard (2021), studying the safety of advocacy in Singapore, noted that morale as an element of the lawyer's professional activity is a partial guarantee of his safe practice. Exploring the theory of vulnerability to advocacy in criminal proceedings, Dehaghani (2021) founds that the defenders' acquisition of resilience in the practice of criminal justice helps them not to succumb to provocations to obstruct justice. An et al. (2021) considered the professional qualities of a lawyer in the field of advocacy through the lens of evaluating the lawyers' qualifications. Bingulac and Miljenović (2021) studied the aspects of defense attorneys' professional independence in relation to state and judicial bodies and noted that the observance of



legal secrecy is the basis for building trust between the client and the lawyer's reputation overall. Sherman (2021) analyzed the protection of the defender's activities from the standpoint of the rule of law and recognized that respect for human rights is the basis of the lawyers' professional activity. Brady and Peck (2021) studied the security of advocacy in terms of Americans' trust in defense attorneys and established a relationship between the society's legal awareness and trust in counsel.

Martínez Santos (2020) studied international standards of access to justice and established a relationship between non-compliance with their norms and guarantees of safe defenders' activities. Pivaty and Soo (2019) scrutinized the European legislation on criminal justice and justified the need to establish a single standard of access to justice, which will ensure a proper balance between the interests of clients to adequately protect their individual rights and the defense counsel's protection.

Considering the problems of criminal law protection of safe activities of defense attorneys, Thornton (2020) emphasizes the provision of sufficient funding at the state level for lawyers in criminal proceedings. Analyzing the Criminal Procedure Code of Croatia, Novokmet (2019) places a special emphasis on ensuring lawyer's proper access to justice. Murray (2020) studied the notice including that applied to a lawyer in criminal proceedings as an element of ensuring constitutional human rights. Borodinova et al., (2020) note that the advocacy effectiveness in criminal proceedings depends on the courts' efficient interpretation and application of criminal procedure rules, taking into account the specifics of the particular branch of law.

However, despite quite a wide scope of research on this topic, currently insufficiently addressed are the issues of criminal penalties for obstructing the defense attorney's legal activity in court proceedings, as well as the reasons for imperfect protection of safe advocacy and ways to tackle them, which determines the relevance of the research topic.

### Methods and Materials

The topic of the article was studied in three stages. The initial stage involved the formulation of the topic, purpose and objectives of the study; the second stage – the actual carrying out of the scientific research; the third stage – the analysis and presentation of the study findings. The topic is formulated by reviewing the current state of

the problem of safe advocacy and its criminal protection. The purpose and objectives are laid out on the basis of analysis of scientific literature on jurisprudence, legal framework for safe advocacy and work of scholars to combat violations of the legal activities of defense counsel in court proceedings by comparing and criticizing problematic information, summarizing and covering the issue. Scientific research was carried out through the use of theoretical and experimental research. Theoretical research allowed determining the content of safe advocacy through the prism of international law and its criminal law protection. Experimental research based on the provisions of criminal law of Austria, Belgium, Bulgaria, Denmark, Estonia, Spain, Latvia, the Netherlands, Germany, Norway, Poland, France and generalization of the practical application of international and criminal law in the field of advocacy, made it possible to identify the types of crimes against justice, their corpus delicti, as well as criminal liability for such obstruction of justice and its punishment. At the third stage the analysis and registration of scientific research findings was carried out. The general analysis of theoretical and experimental researches, comparison of their results and the analysis of discrepancies outlined the key problems of criminal law protection of maintaining the safe legal activity.

The research into the issue under analysis was carried out through the use of empirical and theoretical scientific methods. From the standpoint of international law and criminal law and legal relations in the field of safe advocacy, empirical knowledge reflects the content of the object of study - criminal liability for violations of justice. Due to the method of comparative analysis, scientific, legal and practical information about advocacy and its criminal protection is analyzed. Theoretical knowledge of criminal law against the violation of the lawful activities of the defender reveals the subject of research from the universal internal, essential connections and patterns, understood by the rational processing of empirical data. The combination of empirical and theoretical methods provides an empirical interpretation of the theory and theoretical interpretation of empirical data, as well as reveals the grounds for criminal prosecution of offenders who have committed socially dangerous acts against justice.

The research sample encompassed such research objects as follows: legal bases of safe advocacy and its international guarantees, as well as

criminal penalties for obstructing the lawyer's activity during the court proceedings and the grounds for criminal prosecution for obstructing such activity. The combination of the study of these objects helped to discern the problems scope of criminal law protection regarding a safe advocacy. The research was carried out on the basis of information retrieval using the global computer network on the Internet as well as scientometric databases.

The basic materials on which the study was grounded are as follows: international legal acts, in particular UN Basic Provisions on the Role of Lawyers, UN General Assembly Resolution 43/173 dated December 9, 1988, European Convention on Human Rights, General Code of Conduct for Lawyers of the European Community, Charter of Basic Principles European legal profession, Directive 77/249/EEC dated 22 March 1977 and Directive 98/5/EC dated 16 February 1998, as well as the EU countries' criminal law (Council of the European communities, 1977; European economic and social committee, 2006; European Parliament, 1998; Office of the high commissioner for human rights, 1990).

## Results

The relevant protection of human rights and freedoms ensures the development in economic, social, cultural, social and political spheres of life and requires that all people have the opportunity to enjoy legal assistance provided by an independent counsel for defense. The UN's basic

provisions on the role of lawyers guarantee that all persons are entitled to call upon the assistance of a lawyer of their choice to protect and establish their rights and to defend them in all stages of criminal proceedings. States governments take obligation to ensure access to an efficient procedures and responsive mechanisms for effective and equal access to lawyers are provided for all persons within their territory and subject to their jurisdiction, regardless of race, color, ethnic origin, sex, language, religion, political or other opinion, national or social origin, property, birth, economic or other status. The main UN provisions on the role of lawyers authorize the law enforcement agencies of each state to ensure that everyone is informed about the rights to call upon the assistance of lawyers upon arrest or detention or when charged with a criminal offence.

State guarantees for safe advocacy are presented in Figure 1.

The General Code of Conduct for the lawyers in the European Community defines the general rules applicable to lawyers, both court defenders and legal advisors, dealing with international practice in EU countries (European economic and social committee, 2006). This Code defines the legal status of a lawyer who must act pursuant to the law as a whole as well as in the interests of those whose rights and freedoms they are entrusted to defend, while not only appearing in court on behalf of the client but also providing legal assistance in the form of advice and consultations.

### State commitments to ensure safe advocacy

**Figure 1.** State powers in the field of safeguarding advocacy.

Source: author's own elaboration based on Office of the high commissioner for human rights (1990). Paragraphs 16-20

The core advocacy principles that are necessary for the proper administration of justice, access to justice and the exercise of the right to a fair trial under the European Convention on Human Rights are set out in the Charter of Core Principles of the European Legal Profession. According to the Charter, advocacy is based on the principles of the rule of law, independence of affairs, confidentiality of advocacy, avoidance of conflicts of interest, professional competence, respect for the honor and dignity of the legal profession, fair treatment and self-regulation of advocacy. Self-regulation of the legal profession is vital in buttressing the independence of the practicing lawyer. The principle of independence and freedom of the lawyer in the conduct of the client's case requires from the lawyer political, economic and intellectual freedom in the exercise of their powers, counseling and representing the interests of the client. That is, a lawyer must be independent of the state and other government interests and must not allow his independence to be jeopardized by destructive pressure.

Legal support of advocacy is regulated by the standards of the Council of Europe. Directive 77/249/EEC dated 22 March 1977 facilitating the effective exercise by lawyers of freedom to provide services, sets out the basic requirements for the exercise of the profession of lawyer on a permanent basis in the EU and the procedure for the provision of services in the EU (Council of the European communities, 1977). Directive 98/5/EC dated 16 February 1998 on a simplified procedure for the practice of legal practice in another member state in which a qualification was obtained simplifies the conditions for lawyers to pursue their professional activities outside their own country (European Parliament and Council of Europe, 1998).

In the EU, obstruction of a lawyer's legal activities in court proceedings qualifies as a crime against justice, disclosure of legal secrecy and intentional harm to the lawyer's life. However, the composition of such crimes in different EU countries has its own features (Table 1).

**Table 1.**  
*Criminal liability for obstructing the lawyer's activity in court proceedings in EU countries.*

Country	Grounds for criminal liability	Punitive measure
Austria	The Criminal Code of the Republic of Austria (unlawful violation of attorney secrets)	imprisonment for up to three months or a fine of up to 180 daily rates
Belgium	Section 259bis of the Criminal Code of the Kingdom of Belgium (unlawful violation of attorney secrets)	imprisonment for the term from six months up to two years and (or) a fine
Bulgaria	Section 145 the Criminal Code of the Republic of Bulgaria (unlawful violation of attorney secrets)	imprisonment for up to one year or a fine from BGN 100 to BGN 300
Denmark	Section 150 of the Danish Criminal Code (interference with a lawyer, coercion)	imprisonment for up to three years
Estonia	Sections 302–304 of the Penitentiary Code of the Republic of Estonia (obstruction of justice)	finer or imprisonment for a term of one to five years, or imprisonment for a term of four to twelve years, and for causing death – from six to twelve years
Spain	Section 464 of the Criminal Code of the Kingdom of Spain (obstruction of the lawyer's activity) Section 172 (coercion to attorney practice)	a fine or imprisonment for a term of one to four years imprisonment for a term of six months to three years or a fine
Latvia	Section 231 of the Criminal Code of the Republic of Latvia (obstruction of the lawyer's activity)	corrective labor or a fine, or restriction of liberty, or imprisonment for up to two years
The Netherlands	Section 272 of the Criminal Code of the Netherlands (unlawful violation of attorney secrets)	a term of imprisonment not exceeding six months or a fine of the fourth category.

Germany	Section 201 of the Criminal Code of Germany (unlawful violation of attorney secrets)	a fine or imprisonment for up to three years
Norway	Sections 145 and 145 <sup>a</sup> of the Criminal Code of the Kingdom of Norway (unlawful breach of attorney secrets)	a fine or imprisonment for up to six months
France	Sections 221 <sup>1</sup> -221 <sup>5-5</sup> of the Criminal Code of the French Republic (intentional harm to the lawyer's life); Sections 432 <sup>1</sup> -432 <sup>3</sup> (abuse of power directed against public authorities (justice)); Sections 434 <sup>24</sup> -434 <sup>34-1</sup> (crimes against justice)	imprisonment for a term of thirty years or life imprisonment; imprisonment for a term of five years and a fine of € 75,000; imprisonment for a term of one year and a fine of EUR 15,000

Source: author's own elaboration based on Fuchs (2013); Law 10/1995 (1995); Konarska-Wrzosek (2020); Criminal Law of the Republic of Latvia (2021); Consolidated federal law (2022); Legifrance (1992); Legislationline (2005; 2012; 2017; 2021); Lovdata (2005); Riigi Teataja (2001).

Obstruction of a lawyer's legal activity in court proceedings in France qualifies as criminal offenses against life, health and property, as well as against justice and abuse of power, directed against public authorities. For Sections 221-221-5 of the Criminal Code (hereinafter - CC) of the French Republic, the grounds for criminal prosecution are acts committed against a person who is under special protection of the law: premeditated murder; use of torture or cruelty; violent acts that resulted in death without intent to cause it, or injury, chronic illness or disability; destruction or damage to another person's property. In addition, Section 4321 of the CC of France provides for liability for an act committed by any person who has public authority and who acts in the exercise of his powers, which is expressed in the creation of measures aimed at obstructing the implementation of the law. Crimes against justice (Sections 43424-43434-1) are insults with words, gestures or threats, not made public by texts or images of any kind or by sending any items addressed to any magistrate, juror or any other person who sits in any judicial body and who is performing his or her duties or in connection with their performance, and who seeks to inflict harm on his or her dignity or respect, which must be shown in the position he or she holds. According to these sections of the CC of France, victims are defined as a magistrate (judge or prosecutor), jurors, lawyer, court clerk or other representatives, as well as witnesses, victims or civil plaintiffs (Legifrance, 1992).

Obstruction of a defense counsel activity in Denmark, Estonia, Spain, Latvia, Poland is recognized as a criminal offense. Section 150 of the CC of Denmark imposes criminal liability to a person who while exercising state power or function, abuses their position to compel any person to do, continue, or refrain from doing

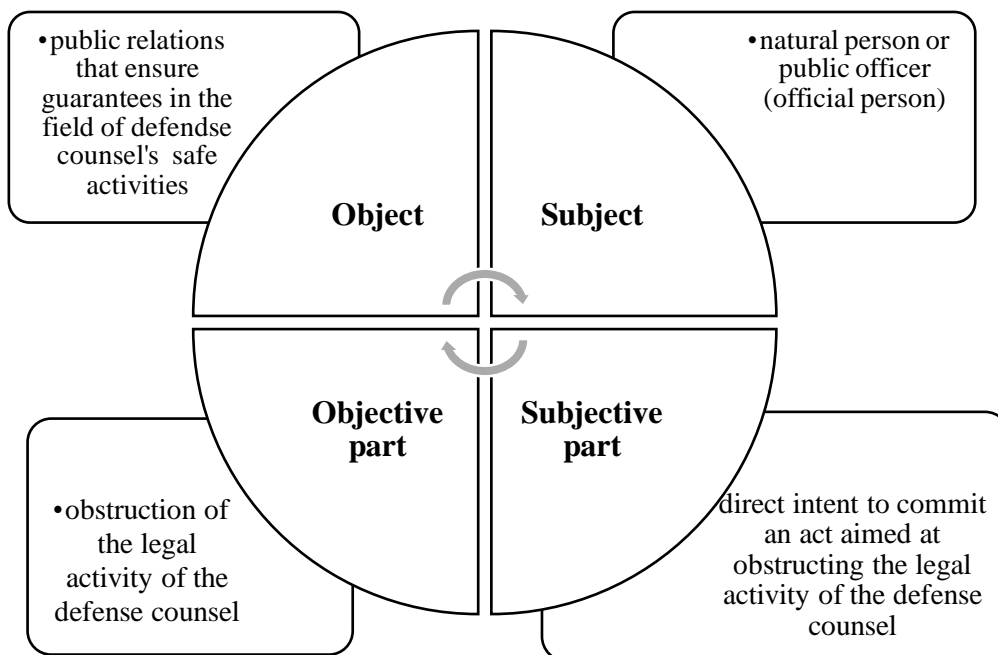
something (Legislationline, 2005). This provision of the CC of Denmark recognizes as a victim a lawyer, solicitor or lawyer who is forced to perform or not to perform certain actions in connection with the provision of legal assistance to anyone. Section 302–304 of the CC of the Republic of Estonia provide for criminal liability as follows: causing serious harm to a lawyer in order to coerce him or her against the interests of justice or in retaliation for the performance of his or her duties; violence against the defense counsel, as well as other influence on him or her in order to force him or her to act against the interests of justice or in retaliation for the performance of his or her duties; damage to the property of a lawyer in order to force him or her to act against the interests of justice or in retaliation for the performance of his or her duties (Riigi Teataja, 2001). According to the provisions of Estonian criminal law, the victims are defense counsels, attorneys, and lawyers. For Section 464 of the CC of Spain, criminal liability is imposed on persons who by violence or intimidation try to directly or indirectly influence the plaintiff, party to the proceedings or the accused, lawyer, prosecutor, expert, interpreter or witness in the process to change his or her procedural position (Law 10/1995, 1995). Furthermore, the obstruction of a lawyer's legal activities, a defense counsel's, a representative's refers to coercion pursuant to Section 172 of the CC of Spain: obstruction of a person to exercise their rights and freedoms by a qualified coercion to commit certain acts not prohibited by law. Pursuant to Section 231 of the CC of the Republic of Latvia, criminal liability is established for obstructing the activities of a lawyer, and alongside those of a judge, a prosecutor, an official of a pre-trial investigation, a bailiff (Criminal Law of the Republic of Latvia, 2021). In Poland, illegal acts related to the

obstruction of the legal activities of a lawyer are considered crimes against the authenticity of documents. So, Section 271 of the CC of Poland punishes officials or other persons authorized to issue a document for entering false information into it about the circumstances of legal implication (Konarska-Wrzosek, 2020).

However, in some EU countries (Austria, Belgium, Bulgaria, Norway, the Netherlands, Germany) there is no criminal liability for obstructing a lawyer, but it is established for the disclosure of legal secrets. According to the Criminal Code of Austria, a criminal offense for disclosing a lawyer's secret is an illegal violation of the secrecy of correspondence, illegal access to other people's documents (Consolidated federal law, 2022). According to Section 259bis of the Criminal Code of the Kingdom of Belgium criminal liability is provided for illegal wiretapping, secret acquaintance, recording of private negotiations, committed by a public official or official (Legislationline, 2021). Pursuant to Section 145 of the Criminal Code of the Republic of Bulgaria, the grounds for criminal prosecution are the use other than for the purposes of criminal proceedings of information obtained using special intelligence tools, including the commission of such an action by an official who received information or got to know

it in connection with official activities (Legislationline, 2017). According to Sections 145-145a of the Criminal Code of the Kingdom of Norway, criminal liability is foreseen for encroachment on secrecy in the form of illegal disclosure of other person's letter or other document to access the content, wiretapping, other conversations, their secret recording, and installation of technical means for recording (Lovdata, 2005). According to Section 272 of the Criminal Code of the Netherlands, punishable is the intentional disclosure of a secret that a person is obliged to keep, in particular, by position or profession (Legislationline, 2012). Under Section 201 of the Criminal Code of Germany, criminal liability is established for committing unofficially spoken words without the permission of a recording on a technical device or eavesdropping with a technical device (Fuchs, 2013).

The grounds for criminal prosecution for obstructing the legal activities of defense counsel in court proceedings are established criminal law penalties for crimes against justice, which are qualified by the presence of all components of such crimes. The composition of crimes for obstructing the legal activities of defense counsel in court proceedings is shown in Figure 2.



**Figure 2.** Components of crimes for obstructing the defense counsel's legal activity in court proceedings. Source: author's own elaboration based on Fuchs (2013); Law 10/1995 (1995); Konarska-Wrzosek (2020); Criminal Law of the Republic of Latvia (2021); Consolidated federal law (2022); Legifrance (1992); Legislationline (2005; 2012; 2017; 2021); Lovdata, (2005); Riigi Teataja (2001).

The victim of crimes for obstructing the legal activities of defense counsel in court proceedings is a person who practices law and a person whose rights are safeguarded. Therefore, offenders who committed a socially dangerous act that contains all the components of a crime provided by criminal law may be held criminally liable.

### Discussion

The reasons for establishing criminal protection for the safe activities of defense counsel in court proceedings are related to ensuring compliance with international guarantees for everyone's right to legal aid and to seek assistance to prove their rights and protection at all stages of the trial. Safe advocacy depends not only on the establishment of criminal liability for its obstruction and an effective legal mechanism for attracting offenders, but also on the professional conduct of a lawyer, the proper performance of his or her professional duties, his or her level of qualification as well as their morale.

According to Chow and Calvard (2021), a partial guarantee of safeguarding the defense counsel's activity in court proceedings are the lawyer's moral principles, which he adheres to in his or her own professional function. In their opinion, the lawyer's morals has a mixed form, which changes under the influence of managerial and economic factors and constantly varies between self-interest and commercial interests of clients. Dehaghani (2021) believes that the defense counsel's resilience and endurance in criminal justice practice helps them not to yield to provocations to hinder their activities in court proceedings. According to Mergaerts (2021), the lawyer's adherence to their own opinion in court may also be a factor in impeding their legal activity.

Another level of qualification of lawyers is another guarantor of safeguarding the defense counsel's activity in court proceedings. The level of qualification is extremely difficult to evaluate, due to the lack of uniform standards for assessing the professional activity of lawyers and the complexity of assessment in terms of jurisprudence of cases conducted by a lawyer (An et al., 2021). The safety of advocacy depends on the qualifications and morals of the lawyer. Examining the professional independence of defense counsel in court proceedings against judges and state bodies, Bingulac and Miljenović (2021) note that such independence builds trust in the relationship between the client and the lawyer. Gaining the trust of the client depends on

the proper performance of the lawyer's duty to maintain confidentiality and legal secrets. The rule of law should be a priority in the legal activity of the defense counsel. Adherence to this principle will help to enhance respect for human rights and further avoid various controversial legal controversy (Sherman, 2021).

Probing into the grounds for the defense counsel's activities in juvenile litigation, researchers concluded that the introduction of the lawyers' mandatory appointment in such cases will simplify the trial and increase the legal awareness of detained offenders, which in turn will enhance confidence in lawyers in society (Brady & Peck, 2021). In order to improve the safe professional activities of defense attorneys in criminal cases involving minors, researchers offer a lawyer not only to provide the legal assistance to the suspect, but also psychological support (Kokkalera, 2021).

Analyzing the cases of the European Court of Human Rights in which legal aid was denied, the violation of international standards relating the access to justice establishes the relationship between non-compliance and safeguarding the defense counsels (Martínez Santos, 2020). Studying the European legislation on criminal law protection in the field of justice, researchers argue that the establishment of a single standard of equal access of the parties to the proceedings will establish the necessary balance between the interests of clients for the fair protection of their rights and the protection of the defense lawyer's activity (Pivaty & Soo, 2019).

As a result of the doctrinal analysis of the specified problems of establishment of criminal sanctions for obstruction of defense counsel's legal activities in judicial process, we can note that scientists see the expediency in further research of the criminal law norms provided for actions against justice, effective recommendations of their practical implementation to seek relevant directions of developing the legal mechanisms of safeguarding legal activity.

### Conclusions

The protection of guarantees of safe advocacy related to the practice of defense attorneys, in the absence of a special rule on liability for their violation, is possible only if criminal liability is established for illegal actions aimed at interfering with the defense counsel's legal activities in court proceedings. It is of the essence of a

lawyer's function that criminal liability for obstructing the defense counsel's legal activities in court proceedings is a type of legal liability applied to a person who committed the specified criminal offense, to be subject to criminal punishment in the form of a fine, correctional labor, imprisonment or suspension from office.

The grounds for bringing offenders who committed a socially dangerous act against justice to criminal responsibility occur in the presence of all components of the crime provided by criminal law (the object, the subject, the objective side and the subjective side). The object of such crimes is public relations, which provide international standards and guarantees in the field of defense attorney's safe activities. The objective aspect of these criminal offenses is intentional interference and obstruction of the legal activities of the defense counsel. The basic subject of such crimes is a natural person of a certain age, who at the time of the crime was aware of his or her actions and directed them, and a special subject is a public officer (official person). The subjective side of these socially dangerous acts is the direct intent to commit an act aimed at preventing the defense counsel's legal activities.

The prospect of further research is to develop mechanisms for the implementation of criminal sanctions to offenders who committed a socially dangerous act against justice in order to ensure safe activities of the defense counsel. Therefore, we see a further perspective in the empirical study and theoretical and methodological justification of criminal law safeguarding of the defense counsel's professional activities in court proceedings.

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## Russian version of cultural federalism

### Российская версия культурного федерализма

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#### Abstract

This article proposes a vision of the idea of “cultural federalism” contributing to the stability of ethnic culture in the era of assimilation by mass culture and global unification, revitalizing the meanings of modernity, enriching the multinational synergy of Russian culture, overcoming capitalist alienation and disintegration of multiculturalism. Methods of analysis and comparison are used in ethnocultural dynamics, mastering such symbolic conquests as “federalism” in the paradigm of modernity, which fits into the process of ethnocultural modernization.

The novelty of the work lies in the substantiation of the concept of cultural federalism vs ethnic federalism, as the most appropriate for the modern cultural situation in Russia, the cultural capital of which is multinational and, accordingly, the effect of “Russian multiculturalism” that can oppose secession with an integration trend, reanimate the cooperative effect of the interaction of cultural programs, their complementarity.

The authors are interested in the dialectical self-development of historical and cultural differences of the subjects of the federation entering the era of natural modernization, reflected in the ethnic cultural renaissance of the present. The idea of cultural federalism contributes to the development of the Russian national idea, the absence of which reduces the effect of national consolidation and socio-economic development. It is proposed as a tool for solving the problem of “sleeping federalism” and the dialectical contradiction between the

#### Аннотация

В статье предлагается видение идеи «культурного федерализма», способствующего устойчивости этнической культуры в эпоху ассимиляции массовой культурой и глобального объединения, оживляющего смыслы современности, обогащающего многонациональную синергию российской культуры, преодолевающего капиталистическую отчуждение и распад мультикультурализма. Методы анализа и сравнения используются в этнокультурной динамике, освоении таких символических завоеваний, как «федерализм» в парадигме современности, вписывающейся в процесс этнокультурной модернизации.

Новизна работы заключается в обосновании концепции культурного федерализма vs этнического федерализма, как наиболее адекватной современной культурной ситуации в России, культурная столица которой многонациональна и, соответственно, эффекта «русского мультикультурализма», который может противопоставить сепаратизму интеграционному тренду, реанимировать кооперативный эффект взаимодействия культурных программ, их взаимодополняемость.

Авторов интересует диалектическое саморазвитие историко-культурных различий субъектов федерации, вступающих в эпоху естественной модернизации, отразившееся в этнокультурном ренессансе современности. Идея культурного федерализма способствует развитию русской национальной идеи, отсутствие которой снижает эффект национальной консолидации и социально-

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form and content of the present state of ethnic federalism.

**Key words:** ethnic culture, ethnos, cultural federalism, ethnic federalism, globalization, multiculturalism, ethnomodernity.

## Introduction

The twentieth century inscribed in history by the flourishing of ideas of federalism. It was the time when absolute monarchies lost their historical perspectives. The ideas of federalism arose in the West, in attempts to give real forms to the symbolic concept of “state sovereignty” in which society can practice. In turn, Russia at the beginning of the 90s, according to analysts, conceived of federalism as a mechanism that would prevent the revival of absolute centralized power, which was a reaction to the outgoing political unity of the Communist Party. The methodological tools of the “centralization – federalization” pair remains important in the analysis of Russian political and socio-cultural reality.

The fundamental symbolic nature of the construct “federalism” has not yet found an adequate cultural form of implementation that clarifies the original metaphysical meaning, which negatively affects the socio-political interaction of the subjects of the federation and the federal center in need of socio-cultural modernization, taking into account the historical and cultural capital of multinational Russia in the context of assimilation of national and ethnic cultures by mass culture and the processes of socio-cultural globalization during the transformation of the world capitalist paradigm.

Alter modernity, whose particular form is ethno modernity in the culture of the Republic of Sakha (Yakutia), demonstrates the productivity of this cultural paradigm, inscribing the socio-political sphere of culture into this process, for example, through the proposed idea of cultural federalism. The latter ensures the stability of ethnic cultures in the global era of erosion of the moral and spiritual foundations of culture.

The modern interpretation of federalism, which remains a metaphysical (symbolic) form, should continue to be filled with meaningful meanings: “times have changed, and we have changed with them, but the formula, important for the day before yesterday’s compromises of yesterday’s

экономического развития. Он предлагается как инструмент решения проблемы «спящего федерализма» и диалектического противоречия между формой и содержанием современного состояния этнического федерализма.

**Ключевые слова:** этническая культура, этнос, культурный федерализм, этнический федерализм, глобализация, мультикультурализм, этномодерн.

rulers of thoughts and destinies, has remained and lived its life in new contexts” (Salmin, 2000), by no means clarifying the original meanings. The author speaks succinctly about the idea of federalism: “... Federation is a model that assumes that the nature of relations between the state as a whole and its constituent parts cannot be changed without mutual consent.” Similar thoughts can be found among other researchers. Giorgi Hibua writes: “the establishment of permanent balance between several holders of power is an urgent task of federalism” (Hibua, 2008). In contrast to centralism, which resolves conflicts from a privileged position, “in the name of global interests” by suppressing particular interests, federalism is able to unify social relations, bringing them to a common denominator that removes conflicts in a federal state.

The problematic knot of modern federalism in Russia revolves around the immaturity of articulated consciousness when the authorities cannot act within the strictness of the formal principles of federalism. This results in reciprocal reproaches. The domestic practice of federal relations has shifted to zero, being in the recent past political and financial bargaining between power elites (Vasil'eva et al, 2017). Naturally, real federalism will not be implemented under such conditions, just as its meaning will not be clear to society. A *problematic question arises*: why do we need a model of federalism distorted between form and content, incapable of resolving existing problems, and are there ways to naturally resolve this situation? Let’s recall that from the standpoint of philosophical knowledge, this institution is primarily a quality of consciousness that institutionalizes contradictions into a single synthesis, giving them the form of a dialogue that prolongs the existence of symbolic forms of civilization (Hibua, 2008). We believe that the need to form the quality of the consciousness of a society that wants to practice in complex social and political forms should begin with the development of the metaphysics of symbolic

forms, the articulation of which has always been a problem in Russian reality. The society should have a backlash for the manifestation of its own efforts of self-development and the practice of such symbolic forms.

*The purpose* of this work is to study federalism, taking into account the development of the consequences of historical and cultural differences of individual territorial parts of the country, as it developed in the Russian state in the socialist in content and European in form paradigm of ethnic federalism. This will be the starting point for the development of the concept of cultural federalism, which returns the abstract metaphysical meaning of the idea of federalism and becomes a factor of stability of ethnic cultures in the modern world.

In the context of comparing the two models of federalism, there are specific tasks of questioning new forms that promote the ideas of socio-cultural modernization, which, according to V.G. Fedotova (2005), has exhausted her own political and economic discourse and is now focused on the search for sustainable consensus of values and lifestyles that belongs to the cultural sphere.

### Theoretical aspects

As noted by V.G. Fedotova (2017), in the context of globalization, there is a new turn of modernization, ceasing to be catching up, which means ahead of the West, according to the certain indicators of the use of the socio-cultural characteristics of the region and the country as a whole. This vision invites the regions to build long-term development programs, the institution of which can be new forms of federalism and the corresponding identity, as well as innovative solutions in their management (Yurina, 2021). This institution can be called, in the terminology of Auzan and Polterovich, as an “intermediate institution” that allows for “fine tuning of reforms” (Fedotova, 2020, p.235).

Traditional ontological schemes about the impossibility of dialogue between the “West and Non-West” on the basis of Western metaphysics, according to R.O. Rzaeva (Rzaeva, 2012, p. 89), are not relevant in the unique case of the national regions of Russia that have joined modernity in a couple of centuries. Acceptable appeal to the methodology of postmodernity (Rzaeva, 2012) in the noted dichotomous discourse, in the case of the ethnonational regions of the Russian Federation, becomes unproductive, because the way of being “to be seen by the Other” according

to Jean-Paul Sartre, in postmodernity becomes a limitation for the metaphysical consensus, the real foundation of the synergy of cooperation between different national cultures of multinational state and, in particular, the institutionalization of federalism in Russia. We believe that the meta-narrative “West” and its derivative “modern” both for the center and the periphery of Russia are universal and acceptable for the situation of national Russian regions that have passed the active seventieth and then the passive thirtieth anniversary of rapprochement and merging of nations and nationalities, in the words of A.Ya. Flier, diffuse and structuralist cultural dynamics (Flier, 2013).

There are opinions that one of the consequences of the ethnic federalism paradigm is, according to I.M. Busygina, M.G. Filippov, not strengthening, but weakening the state (Busygina, & Filippov, 2020, p. 8), which fragments the political space of the country. Two aspects of this statement that should be noted here. Firstly, the multiculturalism proposed by global postmodernity, denying individuality, affirms, according to A. Rend, “soft totalitarianism” and group identity with conformism (Rend, 2015, p. 303), thereby preventing the individual integration of representatives of different cultures into civil society (Suhorukova, 2012). Secondly, the aspect of system analysis reminds us that the desire for homogeneity in a complex system over historically long period worsens its stability and flexibility in response to the challenges of the external and internal environment. Heterogeneity, in this case multinationality, is a product of the Russian egregore, its spiritual and cultural component, tested for centuries and tested by the ideological and socio-cultural transformation of the Soviet era. This cultural-historical foundation, which has incorporated into “ethnic solidarity”, “internationalism”, “merger and rapprochement of nations” in Soviet terminology, is still unspent social and cultural capital for the search for new forms of federalism.

In the situation under consideration, it is productive to conduct a conversation within the paradigm of altermodernity, rather than postmodernity that is a product of Western culture that reflects the shortcomings of modernity, for example, a value-based attitude to nature as a conquered element by an initiative subject who ascribes only to himself the right of advantage (Rzaeva, 2012, p. 91). The desire for ideological substitution of universal interests for group ones, for example, ethnic ones, reduces the

rank of responsible dialogue of “subjects of social creativity”, and, according to A. Buzgalin, ultimately leads not to the culture of the West, but to mass cultural simulacra (Buzgalin, 2014, p. 19), suitable for mass consumption. A variant of altermodernity with an underlined socio-cultural dominant, manifested, for example, by aesthetic searches in the Yakut culture at the turn of XX-XXI centuries, is shown in some of our works (Pudov, 2019), (Pudov, et al., 2020), which fundamentally fits into the variant of “alternative modernity” as a “dialogue between worlds” (Rzaeva, 2012, p. 93).

The cultural renaissance experienced by the regions of Russia today, a vivid example of which is Yakutia (Pudov, Koryakina, 2021), has become a historical result of ethnic federalism with the dialectic of its implementation in the 90s and the declarativity of the 2000s. Nowadays Russia has remained “federation only formally” (Busygina, Filippov, 2020, p. 7) and needs process of complicating the systemic diversity of “sleeping” Russian federalism. We believe that the model of cultural federalism can become a guarantee for the protection and development of cultural and historical features that are highly susceptible to assimilation by the mass iconic culture of global postmodernity and, at the same time, will not indulge global capital in the creation of convenient ethnic closure and separatism of the ideology of multiculturalism.

Unfortunately, the national ideas proposed by political elites may remain ontologically unrooted in their ideological nature. The rank of the identity phenomenon of such system is underestimated. In our opinion, an ontologically constructed identity (Pudov, 2014, pp. 266-278), which should substantiate the national idea of Russia, makes it possible to raise the rank of such national concepts. Therefore, we see the essence of cultural federalism in Russia in the variety of models of modernity (“multimodernity” according to S. Eisenstadt) of multinational Russia, the natural modernization of the peoples of which has an active phase. In connection with the above, we believe that the ensemble of cultural modernizations is a condition for spiritually strong Russia that has nourished the national cultures of the regions with the cultural renaissance of modernity for several centuries. The Republic of Sakha (Yakutia) turned out to be a successful socio-cultural ecumene for overcoming the pre-modern culture of world confessions, while preserving the authentic pre-modern feature of its mythological era of traditional society. This is a synergy of the synthesis of modernity and ethnocultural capital,

giving rise to a new universal understanding of the ethnic and through it reproducing the meanings of modernity, lost by Western culture, empty or carnival postmodernity. This is the spiritual strength of the peoples of Russia, as well as a way to return to Western culture the meaning, value, and rationality of the lost modernity, and pre-modernity, refracted through the prism of the ethnic. We found similar ideas in Adan, a modern researcher of ethnic cultures of China, designated by him as a dialectical combination of the traditional foundations of ethnic culture and the synthesis of “the most relevant and actively declared ... cultural experience ... refracted onto the ethnic soil of a specific ethnic group” (Adan', 2020, p. 13).

### Methodological foundation

Let's recall that in Soviet times, the national philosophers of Yakutia, such as A.E. Mordinov, described the situation of free and comprehensive development of national cultures as the basis for “development of the socialist culture of the multinational Soviet state, as opposed to the decline and degradation that constitute the law of the culture development of capitalist society” (Mordinov, 1951, p. 19). Without ideological clichés and taking into account modern global capitalism, cultural decline and degradation, we must again oppose the free and comprehensive development of the national cultures of Russia, developing the ethnic cultural capital of the peoples, the basic basis of which should be socio-cultural modernization, on its cultural foundations, conquering the achievements of modernity, for example, a symbolic construct that is relevant from our point of view as a nation, and even more - returning new meanings of modernity to the West. The “reflected” cultural renaissance, a universal metaphysical product of the Russian Silver Age, still nourishes world culture. A new stage of the renaissance of modernity in the face of ethnomodernity is carried out by expanding the ethnocultural spectrum of consciousness to universal values. This will become a guarantee and foundation for the formation of civil and democratic supra-ethnic culture. In Yakutia, the paradigm of ethno modernity that clearly manifested itself in the field of national art at the turn of XX-XXI centuries, became such a basis.

The unity of the multinational culture of Russia, the essence, is in the naturally mastered modernity on their own ethnocultural foundations of the peoples. This condition is the source of their self-development and the formation of a single international cultural space

of Russia when each culture complements and enriches it. What is described is a dialectical self-development of ideas developed by the philosophers of the national regions of the Soviet era, who discussed the rapprochement and merging of nations (Mordinov, 2010, p. 31). Moreover, rapprochement, in our vision, can be interpreted as the mastery of symbolic culture - technology, science, and complete merger, in Soviet times understood through the decisive sphere - socio-economic and political, can be interpreted today through the mastery and practice of symbolic forms of civil society, democratic institutions, important conquests of modernity. According to V.M. Mezhev, in the language of the philosophy of culture, it sounds like: "... becoming a nation, the people do not dissolve in the supranational space, but are included in it with minimal losses and costs for themselves, retaining their peculiarity and originality" (Mezhuev, 2010, pp. 11-12).

In other words, the methodology of ethnocultural dynamics allows us to operate in the analysis and comparison of cultural phenomena of modernity, introducing new meanings, taking into account the intercultural borderline and phenomena that arise at the transitions from premodernity to modernity and ethno modernity, which is the new proposed narrative of cultural federalism that fits into the process of ethnocultural modernization.

## Results

From time immemorial, Russia has maintained its multinationality, "Russian multiculturalism", the basis of which was not isolationism, but mutual enrichment based on Russian culture. The Western version of multiculturalism represents the absence of synthesis and the ensemble of many cultures, where the idea of universal enrichment has become a unifying one. There can be nothing else, within the framework of the globalist capitalist paradigm. The Western basis of multiculturalism is non-ontological by nature and non-complimentary to the moral nature of man. According to S. Zhizhek, multiculturalism has become the reverse side of the unprecedented homogenization of the capitalism (Zhizhek, 2005, p. 115), exacerbating the contradiction between globalization (postmodernity, with its respect for cultural differences) and universalism (modernity in the political dimension, i.e., universal demands of democracy, citizenship, a genuine European heritage, "originating in Ancient Greece"). Zhizhek leaves open the question of the forms and institutions of repoliticization in Europe as the only mechanism against the "regressive forms of fundamentalist

hatred" generated by liberal globalization (Zhizhek, 2005, pp. 147-150). Thus, the "divide and rule" policy of globalism (Gorshkov, Bagramov, 2020, p.746), carried out through multiculturalism, and with which Europe has reached a dead end of disintegration, should be blocked. It should prevent the destruction of values by the notorious relativism of multiculturalism, to put up a barrier against the attack for the identification of something as useful (Rend, 2015, p. 303).

The Russian version, replacing Western multiculturalism, can become a synergistic synthesis, giving through the "ontological identity" (Pudov, 2014, pp. 266-278) the possibility of mastering the ethnomodernity paradigm. The categorical "special" of the situation with the Russian version of resolving this contradiction between the upholding communal identity (ethnic, cultural) by the right, threatened by globalization and the political articulation of the left, being etched out, in the terminology of S. Zhizhek, lies in the fact that the cultural complex of Russian national-ethnic regions has absorbed both. This is a unique combination of pre-modernity and modernity, actively mastered today by the Russian multinational people in the aesthetic and socio-cultural sphere. This is what happens within the very boundaries of regional ethnic cultures, namely, an natural access to universal values, called by researchers such as N.K. Gasanovaas "unity in the multitude", "preservation of the morality of a solidary society" (Gasanova, 2013, p. 66).

That is why cultural federalism becomes an experience of the existential dimension of the life of the culture of the Russian regions. Actually, this is a process of socio-cultural modernization in search of development institutions capable of accumulating consensus models of social solidarity and trust in the space of social ties. Moreover, the emerging updated culture is, according to S. Benhabib, "semantic networks that are redefined again and again through the words and deeds of their carriers" (Benhabib, 2003, p. 35).

In the USSR, the idea of an ideological fusion i.e., internationalism was realized, but unrealized in its entirety, due to a lack of ontological foundations. However, ethnic federalism provided the foundation, connected the socio-cultural foundations of the ethnos with the "feeding landscape" of the small homeland and the entire state with a complicated complex, including political ties. On the basis of

historically significant ethnic federalism, Russia has provided the basis for the development of ideas of integration and the discovery of ethnic culture, as opposed to Western multiculturalism, which is characterized by isolation and localization within the framework of multinational state. Russian ethnic federalism has fixed in the minds of generations the conformity of the foundation of socio-cultural features with the small homeland, the land of ancestors, and the landscape that feeds culture. The next stage of development that is cultural federalism, conceived on the basis of ethnic values and worldview, is also ontological and expandable to universal meanings.

The situation is qualitatively different with migrant workers, torn from their native land by socio-economic and political troubles, spurred on by the ideology of multiculturalism, which builds impenetrable barriers to integration and the cultivation of a civil and democratic worldview. Russia is actually provided with a greater socio-cultural base of integration and openness due to ethnic federalism and native territory, and now with the possibility of cultural federalism, securing their sacred right of ownership of the natural habitat i.e., “breadwinner” of ethnic and innovative cultures of our time for the cultural diversity of Russian regions. Therefore, cultural federalism is the justification for the ownership of the spiritual and material culture of future generations including their right to language, traditions and rituals, the natural environment and education customized for this environment. “Giving to the future” we simultaneously work in the model of cultural federalism on the issue of the formation of a historical subject of culture, offering the tradition of the spiritual health of culture, its ecology, continuity, instead of chaos, thus offering the right to human dignity in a certain territory of the federation. Such principles of justice “for the sake of future generations” have always been the spiritual bond of the culture of Russians and Northerners.

In our opinion, the implementation of the concept of cultural federalism, which provides a balance between the tendencies of disruption to ethnic fundamentalism, on the one hand, or unifying assimilation of massification by the global culture, on the other, becomes a factor of the stability of ethnic culture. In substantive aspect, stability is revealed by the following points:

1. The regions offer authentic cultural construction programs that reveal the synergy effect of multinationality through the promotion of supra-ethnic ideas of

cultural improvement, ethnocultural modernization programs.

2. Production of new creative cultural and economic products within the framework of these Programs by means of examples of productive ethno modernity, transmigration of ethno symbolism (Pudov, 2014, pp. 93-108), changing the quality of the ethno symbolic spectrum of national culture.
3. World culture demand for ethnoculture, carried out by broadcasting ethnonational cultural products to any part of the global world.
4. Formation of constructive examples of human dignity through the relationship between people, society, and nature, set by examples of access to universal moral values from the position of their local ethnic culture, as well as by enriching the value spectrum of world culture, for example, in ecology, attitude towards nature and another person.
5. Production of mass cultural goods branded with the cultural topos of Russian regions.

Collectively, this is the transformation of ethnosymbolic capital into the quality and standard of living of a person ontologically rooted in his culture and land of ancestors. This is the transformation of the ethnocultural spectrum of consciousness into new economic activities that contribute to the socio-economic development of the regions. The latter is the guarantee against inclinations towards secession.

Why do we advocate the transformation into cultural federalism? In traditional society, there was full compliance and adequacy of the elements of the triad “ethnos - culture - socio-economic system of management””. Each of the elements there, being in a systemic isomorphic connection, is able to reproduce the other two in its uniqueness. The society of modernity, postmodernity and altermodernity has broken this system of mutual conformity.

In the modern era, ethnos has become a derivative of cultural self-identification, which in the globalizing world, according to Western researchers, such as S. Hall, P. Gay, M. Featherstone, and S. Lash, bears the trait of dynamism and instability, and therefore of multi-component complexity (Hall & Gay, 1996), (Featherstone, 1999). It becomes unproductive to remain in the paradigm of ethnofederalism. The cumulative, multi-level, complex culture, the essence of which determines the construct “ethnos”, and its economy with a social structure

should be considered as primacy. Culture becomes the productive principle.

In this regard, the model of cultural federalism is also capable of producing a multicultural economy. Culture becomes a causal source for cultural mutual enrichment, while each region offers its own set of cultural products for the country's economy within the established territorial boundaries of ethnic federalism, because culture is able to succeed in something specific and competitive in the world market. This is its know-how, its essence, its cultural economy.

The construction of culture takes place against the background of the paradigm of ethno modernity. The latter is nothing but the building of supra-ethnic, democratic, and civil, which is not and will not be in multiculturalism. This is probably the only way to avoid ethnocentrism and fundamentalism and, on the other hand, not to waste ethnocultural capital.

In addition, the proposed paradigm of cultural federalism becomes a solution to the problem identified by M.H. Farukshin as "ethnization of politics" (Farukshin, 2012, p. 41), which no one is currently actively solves, even at the theoretical level, as part of overcoming the "bottlenecks" of the ethnic federalism paradigm, often accused of secession i.e., the destruction of state integrity and separatism.

In addition, the proposed paradigm of cultural federalism becomes a solution to the problem identified by M.H. Farukshin as the "ethnization of politics" (Farukshin, 2012, p. 41), which currently no one actively solves, even at the theoretical level, within the framework of overcoming the "bottlenecks" of the paradigm of ethnic federalism, often accused of secession, destruction of state integrity and separatism.

It should be noted that ethno federalism de facto incorporates into its methodological orbit the scientific discussion and political controversy around secession. This is an inevitable consequence of the theoretical and methodological vision through the prism of the phenomenon of ethnos/ethnicity. A smooth paradigm shift is needed in the development of the ideas of Russian federalism, rich in content and formative terms to the idea of cultural centrism. Cultural centrism brings a different vision of problematic issues, bringing them to the

plane of competing cultural programs and products in the socio-economic aspect.

We believe that ethnos today has become a product of culture, rather than vice versa, culture is a product of ethnos according to Pudov (2018a), (Pudov, 2018b). This vision is quite adequate to constructivism that assumes ethnicity as a construct of socio-political self-identification or external political mobilization. Therefore, focusing on the ethnic is a binding to a political, ideological context, rather than an ontological one, as is the case in a culture that reproduces the phenomenon of personality, a person as a moral and ethical source.

We try to resolve this situation of ideological substitution of the ontological for the ideological by appealing to the ontological identity. Thus, cultural federalism is the cultivation of an ontologically conceptualized product: a developed civic personality, a subject of the history of the Russian state. This is not a descent into political bargaining and polemics about the asymmetry of federalism. This is a process of synergy of cultures as conductors of an integral personality, a spiritually and materially developed civil personality, a subject of the history of the global world and socio-economic development and improvement of the life quality of the regional community.

In addition to all that has been stated, the concept of "cultural federalism" can become the basis or ideological springboard for the production of the national idea of Russia, a mental construct of a symbolic plan that promotes mutual understanding and communication of ethnic groups and cultures. Since, as it has been noted more than once, in the era of postmodernity and the loss of large narratives, previous ideologemes become incapacitated, having squandered their mythological potential. They are demythologized in the context of the Soviet past or disavowed against this background in the current capitalist modernity. New concepts, but not myths or ideologemes, should be a qualitatively new product that incorporates the ontologically conceptualized identity of the representatives of the global world.

## Discussion

Let's turn to some substantive aspects of the phenomenon of Russian identity. As noted by I.N. Lisakovskij, O.N. Astaf'eva, T.G. Bogatyreva (Lisakovskij, 2004), (Astaf'eva, 2007), (Bogatyreva, 2002), the problem of having a single socio-cultural space has emerged

in modern Russia. The integrity and, most importantly, the spiritual power of Russia is ensured not so much by a common economic and political space, but by the presence of a single socio-cultural identity for the country. The latter has not been developed.

Against the background of the blurring of socially orienting identities - national, religious, territorial, gender, and so on, secondary forms of identities that are destructive for society arise - rejection of the alien. This is the retribution of society for the phenomenon of mass consciousness, subject to ideological substitutions with a barbaric filling, in the sense of the lack of articulation of culture and the loss of a symbolic beginning in the national. We see the solution to the problem in the presence of symbol creation, namely the synthesis of ethnic symbolic constructs with civil law ones (Novikov, Pudov, 2005, p. 156).

Any identity lives by acts of self-existence both in cash and withdrawn form. The ethnic symbol, secondary in nature, is formed on the basis of primary symbolism (or can be reduced to a primary/metaphysical symbol), which is directly related to being. However, the secondary ethnic symbol is formed under the mythological method of "coding-interpretation" (Pudov, 2014, p. 54-72). Despite this, "walking" around it allowed a person of traditional society to fulfill an applied significance i.e., to remain in the truth regarding moral imperatives. The ethnic symbolism of the myth is functional.

In connection with the above, the solution to the problem is seen in the prolongation of the existence of the ontological basis of national identity. This is the task of expanding the semantic and conceptual world of the ethnic symbol. This is the necessity of combining the ethno and universal metaphysical symbol of philosophical quality. The exit of ethnic symbols to universal metaphysical semantics, which should become dominant in the era of global culture. The essence of this is the change of the ethnos' self-institutionalization to its socio-cultural modernization. Thus, this is a conversation about the transition from an ideological socio-cultural identity to an existential one. The essence of the latter is the reunification of man with the living thought of civil conquest. At the same time, existential identity plays the role of the formative basis of other ways of identity, it provides foundational binding and integrity of all components of a

person's identities as a member of a society with a civil position.

In the context of the proposed methodology for evaluating modernization transformations, for example, Japanese modernization appears as a variant of modernization without deep initiation and the release of secondary mythological symbolism to the universalism of civil institutions. This is an unconscious desire for being, without unpacking the essence of modernity's cultural symbolism (Pudov, & Novikov, 2008). The Japanese turned out to be good repeaters of the iconic level, which proved itself in the iconic field of technical knowledge and skills today. Nowadays a similar situation happened in China and the countries of Southeast Asia.

### Conclusion

In connection with the above, it becomes clear that the modernization of the culture of ethnic groups is an ontological process of identifying new existential forms filled with new content. There are no transformations at the ontological level in politically initiated modernizations. They represent a politically initiated, variant of external social modernization, there is no conjugation with the symbolic spectrum of the adopted culture.

Cultural federalism in the era of new forms of capitalism or with a possible return to more backward forms of socio-economic formations at a new round of technological progress, when total material alienation is followed by socio-cultural alienation, becomes a kind of protective mechanism. This mechanism, based on a unique way of synthesizing the ethnic and the universal, allows to create original forms in the entire spectrum of cultural forms, from art to politics and social institutions. This is a way to intensify cultural life, producing cultural self-development programs that use the synergistic effect of the interaction of ethnic and modern. In fact, cultural federalism itself represents one of the cultural programs or "rules of the game", a formative element of the spiritual life of the Russian nation. The wealth and strength of our state lies in the synergy of the multinational nature of their cultures. Prosperity of the cultural self-development of ethnic cultures of Russia falls on the present time, delayed from the Russian Silver Age for about a century. There is a need to use this cultural rise of the regions, expressed in



naturally mastered modernity by regional ethnic cultures.

The turn of the millennium marked the completion of the stage of applying ethnic symbolism to the social dimensions of traditional societies. The stage of revealing the universal beginning in the ethnic space of symbols has come.

Summarizing, ethno modernization should incorporate existential identity, be based on the transformed symbolic space of ethno culture, "grasping" being. Metaphysical symbolism is capable of ethno modernization based on existential identity, the ability to retain the empty form of civil and democratic institutions and fulfill its meaning.

Completing the study of the search for new forms of stability of ethnic cultures by means of the concept of cultural federalism, we can draw the following conclusions:

1. Globalism appears as a way of usurping symbolic forms, reducing their metaphysical significance and rank, down to the level of a sign, and the practice of an outdated model of ethnic federalism leads to secession and the growth of fundamentalist attitudes. In the era of global migrations, racial and ethnic mixing, the appeal to the mono-ethnic even declaratively looks like an anachronism since it does not reflect the presence of an ensemble of ethnic and other cultures. For Russian reality, the rank declarativity of the subjects of the federation, remaining a constructive element of stability, against the background of the transformation of the primordia list paradigm into a constructivist one, requires the transformation of its content in the aspect of the ideas of cultural federalism.
2. Cultural federalism offers access to a new level of federal relations - the synergy of cultural programs, the result of which will be the mutual reinforcement of the cooperative effect in building civil forms of sociality, identifying the foundations of a nationwide plebiscite.
3. Cultural federalism, by definition, is for a multicultural society and the moral imperatives of ethnic cultures, the main purpose of which is the cultivation of humanistic principles.
4. Cultural federalism is the nurturing of the national idea of Russia, the consolidation and unity of a single nation in a single idea

of the joint cooperative effect of an ensemble of cultures.

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## Legal regulation of public-private partnership relations and protection of the interests of business entities in Ukraine

### Правове регулювання відносин державно-приватного партнерства та захист інтересів суб'єктів господарювання в Україні

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#### Abstract

Infrastructure development in conditions of limited funding requires the search for and implementation of appropriate innovation mechanisms. To form an effective system of public administration and ensure its competitiveness, more and more states are turning to a combination of private and public ownership within the public-private partnership (PPP). Given these trends, it is essential to examine the PPP in the field of innovation as a driver of the economic development of Ukraine. The work aims to study PPP in the field of innovation as an effective mechanism for effective public economic management. The object of research is PPP in the field of innovation. The researchers used such methods as a method of interpretation of scientific data, method of analysis, statistical method, structural-functional method, method of comparison, and system method. As a result of the study, the scientific positions of foreign and domestic scientists in the settled topic direction and the

#### Анотація

Розбудова інфраструктури в умовах обмеженого фінансування потребує пошуку та впровадження відповідних інноваційних механізмів. З метою формування ефективної системи державного управління та забезпечення її конкурентоспроможності, все частіше держави звертаються до поєднання можливостей приватного та державного власника в межах державно-приватного партнерства (далі – ДПП). З огляду, на вказані тенденції важливо проаналізувати ДПП у сфері інновацій як рушій економічного розвитку України. Метою роботи є дослідження ДПП у сфері інновацій як дієвого механізму ефективного державного управління економікою. Предметом дослідження є відносини ДПП у інноваційній сфері. Під час дослідження ДПП у сфері інновацій використовувалися такі методи, як: метод інтерпретації наукових даних, метод аналізу, статистичний метод, структурно-функціональний метод, метод порівняння та системний метод. У результаті проведеного

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regulatory framework were studied. It was also concluded that cooperation between the state and the private sector creates opportunities for the parties to use innovative developments and participate in globalization processes.

**Keywords:** public-private partnership, investments, innovations, economic policy, regional development, economic strategy, legal support.

## Introduction

Partnership dialogue, which is based on an innovative combination of opportunities between private and public owners within the framework of public-private partnership (hereinafter – PPP) is becoming increasingly popular as an effective way to implement public tasks.

Changing priorities in financial management, decentralization, the need for innovative development of infrastructure, medicine, education, corporate sectors of the economy at the regional level, and integrated territorial communities indicates the relevance of the study of PPP mechanisms at the state, regional, and local levels.

The field of innovation in public-private partnerships requires coherence and proper implementation of legal, organizational, and institutional responsibilities. In such cooperation, the state, as a participant in the innovation process, performs the function of rule-making, business incentives, and support for innovation projects, as well as is responsible for creating innovation infrastructure (Ernst & Young LLC, 2020). Simultaneously, the business is responsible for developing innovative products, financing, and ensuring effective management and support of product commercialization and delivery to the consumer. As a result of the interaction, the private partner may receive benefits, such as protection against market risks; a chance to create large-scale projects that require large financial investments; maximizing profits from product commercialization, and prioritizing research potential.

According to international experience, the development of the state requires the provision of favorable conditions for the functioning of innovative enterprises, the development of the national innovation ecosystem, the interaction of business and the public sector, which is based on

дослідження проаналізовано проблематику реалізації ДПП у сфері інновацій, досліджено наукові позиції закордонних та вітчизняних науковців в цьому напрямі, та нормативно-правову базу. Також зроблено висновки про те, що співпраця між державою та приватним сектором створює можливості використання в діяльності сторін інноваційних розробок та долучення до глобалізаційних процесів.

**Ключові слова:** державно-приватне партнерство, інвестиції, інновації, економічна політика, регіональний розвиток, економічна стратегія, правове забезпечення.

innovation. PPPs in the field of innovation is the key to ensuring the above components, as state regulation of the economy must meet national needs and general development trends. Numerous studies involving the World Bank, the EBRD, and others have highlighted the significance of public-private as an effective way to improve public capital investment management. Both representatives of Ukraine and international organizations agree that the partnership between the state and the private sector helps attract additional financial resources for Ukraine and create conditions for modernization of infrastructure and new jobs, regional development, and restoration of economic growth.

At present, there are no clear innovation-oriented mechanisms for the formation and interaction of innovation infrastructure in Ukraine, so it is important to solve problems that arise at the junction of public understanding of organizational structures (business centers, technology parks, venture funds, etc.). Moreover, the Ukrainian discourse on the research topic is only gaining momentum, as business and government partnership models are under development. Thus, in Ukraine, the general principles of cooperation between the public and private sectors have been declared, but there is still no proper coordination of the research process, no system of measures for PPP development, regulations contradict each other, and other issues do not contribute to government and business for a cooperation meeting (European Union, 2017).

Given that, it is crucial to conduct a theoretical and methodological study of PPP in the field of innovation as a significant mechanism for sustainable development of Ukraine's economy, examine the essence of this phenomenon, its features, and ways to improve existing

mechanisms of state regulation of PPP development in Ukraine.

**Theoretical Framework or Literature Review**

The following scholars examined the problem of PPP: Avksentiev (2010), Afanasieva (2015), Bezbach (2011), Brailovsky (2015), Yermolaev,

Romanova, and Yemets (2018), Zapatrina (2021), Kvitka (2015), Kravchenko (2018), Kruglov (2020), Kosach (2015), Kozachenko (2019), Kravets (2017), Liba (2017), Lyovochkin (2018), Melnyk (2017), Pavlyuk, K. and Pavlyuk, S. (2010), Tarasyuk, and Laguta (2020) (Table 1).

**Table 1.**  
*Scientific position on the notion of PPP. By the authors of the article.*

Scholar	Scientific position
Avksentiev (2010)	The researcher analyzed PPP as a modern mechanism for attracting investment in infrastructure sectors of Ukraine and researched scientific, methodological, and practical issues of attracting private investment in infrastructure sectors of Ukraine. The author also improved the conceptual apparatus clarified the methodological tools of an effective model of risk management, studied foreign experience in the organization and functioning of this area. Methodical approaches to the formation of a strategy to counteract the risks that arise during the implementation of public-business partnership projects are proposed, as well as a system of measures to develop a unified public policy for the development of PPP in Ukraine. As a result of this work, the author has developed practical recommendations for the initiators of PPP projects, which take into account the specifics of the project life cycle and contain a list of key tasks and actions required for the successful completion of the project.
Afanasieva (2015)	In the work of the scholar, PPP is considered as a tool for infrastructure development. For a comprehensive analysis, the scholar studied international experience and weighed the prospects of PPP in Ukraine. The author noted that the state plays the most influential role in the state-business tandem because, without the interest and political will of the government, the development of partnership mechanisms is not considered possible. Given this, according to the author, the state should stimulate comprehensive development, which should provide the following areas: development of the institutional environment of PPP in Ukraine, and; identification of priority sectors of the economy for their development on the basis of PPP.
Bezbach (2011)	Problems of functioning of mechanisms of state regulation of partnership relations in Ukraine became the subject of Bezbach's research. After analyzing the experience of European countries, the scholar made the following conclusions. The key to successful PPP projects is not only a proper legal framework but also a strong public sector, flexibility for project participants and their incentives; In order to achieve the PPP goal, it is necessary to involve experts to create a thorough legal and regulatory framework.
Brailovsky (2015)	A detailed theoretical analysis of the methodology and mechanisms of PPP was conducted by Brailovsky (2015). In his study, the author noted the main shortcomings in PPP legislation. According to the author, such shortcomings are that the existing legislation can not fully take into account all the specifics of financial and legal relations of project participants using the PPP mechanism; the legislative level does not clearly define the sectors of the economy and the areas in which the use of the PPP mechanism will be allowed; there are no legal acts containing provisions on the powers of public authorities in the case of their participation in the implementation of projects using the PPP mechanism; the law does not provide for agreements and contracts on PPP in the public sphere. No less noteworthy, according to the author, is the legally established position on the property, tax structure, and regulation of potential conflicts of interest. Promising mechanisms, according to the author are implementation of large infrastructure projects; development of the country's innovation infrastructure; use of the financial potential of private firms; development of social infrastructure; use of new forms and mechanisms of PPP.
Yermolaev., Romanova, and Yemets (2018)	The authors explored Ukrainian perspectives and international experience in the development of the communal economy.

Zapatrina (2021)	A detailed analysis of PPP's institutional capacity was conducted by Zapatrina (2021). The author emphasizes that it is important to increase the institutional capacity and responsibility of public authorities in ensuring infrastructure development, including by applying the PPP mechanism. This mechanism cannot exist without monitoring and amending legislation.
Kvitka (2015)	The author drew attention to PPP as an effective mechanism for interaction between government and business. According to the author, the peculiarities of state regulation of partnerships with business are largely determined by the general expansion of contractual relations with private sector enterprises, non-profit and public organizations in those areas that were previously the prerogative of the public sector. Simultaneously, the author emphasizes that the PPP requires adequate improvement of the contractual mechanism itself, including guarantees of compliance with the parties' obligations, risk-sharing, and revenue-sharing mechanisms.
Kravchenko (2018)	Kravchenko (2018) analyzed PPP as a mechanism for improving counseling and diagnostic care in his study.
Kruglov (2020)	Mechanisms of state regulation of PPP development in Ukraine became the subject of Kruglov's research.
Kosach (2015)	The author made a thorough analysis of PPP in the context of the system-synergetic paradigm, as well as emphasized the problematic issues and prospects of the economy and governance.
Kozachenko (2019)	Kozachenko (2019) explored the peculiarities of the implementation of the mechanism of PPP to improve the infrastructure of the region in the conditions of decentralization of management.
Kravets (2017)	Issues of public administration of social development through the mechanism of PPP became the topic of Kravets' research.
Liba (2017)	Researcher Liba (2017) studied the implementation of public-private partnership in the system of regional industrial policy and concluded that the purpose of public-private partnership in developed economies is to solve problems related to private sector economic activity, implementation of investment projects with significant payback period and significant initial and current costs. In developing countries, public-private partnerships are used in the implementation of infrastructure projects (especially aimed at the development of road transport and communication infrastructure) and in the electricity sector.
Lyovochkin (2018)	Socio-economic specifics of PPP in the field of state infrastructure became the subject of Lyovochkin's research.
Melnuk (2017)	Researcher Melnyk (2017) studied in detail the issue of PPP in the system of institutions of the national economy and analyzed the mechanisms of development of this instrument of cooperation between different countries.
Pavlyuk, K. and Pavlyuk, S. (2010)	Pavlyuk, K. and Pavlyuk, S. (2010) research reveals the essence and role of PPP in the socio-economic development of the state.
Postnikov (2018)	Peculiarities of the use of PPP as a regulator of the development of PPP became the object of Postnikov's (2018) research. The author notes that the mechanisms of PPP implementation will improve the integrated approach to economic development. Moreover, the author comments that the PPP must clearly define the obligations of the parties: the state guarantees businesses the creation of a favorable environment and production necessary for its operation and development of public goods such as production, social and institutional infrastructure; in addition, businesses are committed to paying taxes and rebuilding the economic resources used in society.
Tarasyuk and Laguta (2020)	The development of PPP in ensuring the socially responsible behavior of business entities was the subject of a study by Tarasyuk and Laguta (2020).

Kharytonov, Kharytonova, Kostruba, Tkalych, and Tolmachevska, Y. (2020), Bolokan, Samoylenko, Tkalych, Panchenko, and Dmytriv, V. (2021). in their works investigated the interaction of the state and private law entities in the field of sports in the context of regulating sports relations.

In addition, various articles on the state of PPP in Ukraine and on project financing, infrastructure and PPP were examined.

### Methodology

The study used the method of interpretation of scientific data, the method of analysis, statistical method, structural-functional method, comparison method, and systematic method.

PPP mechanisms were examined using the method of interpretation of scientific data. Interpretation of data meets the necessary requirements, namely: the nature of evaluation and interpretation are defined in general at the stage of program development and research concept, which outlines the basic characteristics of the object under study; fully defined object and the subject of research; data are interpreted from different positions. Therefore, with the help of numerical values, the data on the state of PPP were transferred into a logical form, as well as hypotheses were formed, which were tested in the course of the research. Given the noteworthy role of correct interpretation of scientific data, this method is a meaningful component of the study.

The statistical method has become an equally vital method in conducting PPP research in the field of innovation. Using the statistical method, the state of PPP development in Ukraine and the world was analyzed. Also, statistical analysis was used in the analysis of the domestic state of PPP projects. It is worth noting that the statistical method allowed to work with large amounts of data on the number of concluded contracts, subjects of contracts, the status of performance of contracts, and etc. Statistical processing of sociological survey results involved the benefit of statistical grouping, tabulation, analysis of absolute and relative distribution series, assessment of statistical reliability of sociological survey results, and performed using the computer program Microsoft Excel.

In addition, a comprehensive study of the topic of the work became possible due to the structural-functional method. Through the study of management phenomena and processes, thanks to this method it became possible to divide the PPP phenomenon into its component parts, study the relationships between them and determine their specific functions, taking into account the integrity and interaction with the environment.

Categorical analysis was utilized in the study of definitions in the system of state regulation of

PPP. An integrated and institutional approach made it possible to identify the features of PPP development policy, to clarify the essence of the processes, to identify the similarity of their elements and contradictions between them, and to identify trends in PPP implementation. Moreover, the systematic method was used to determine the characteristics and classification of forms of partnerships.

Employing the method of analysis, the Law of Ukraine "On PPP" (Law No. 2404-VI, 2010), the Law of Ukraine "On Concessions" (Law No. 997-XIV, 1999), the Resolution of the Cabinet of Ministers of Ukraine "Some Issues of Organization of PPP" were studied (Resolution No. 384, 2011).

The joint usage of comparative, statistical, and comparative analysis helped generalize the international experience of cooperation between government and business. The combination of systemic, functional, complex, and program-targeted approaches provided an opportunity to explore the mechanisms of state regulation of PPP in Ukraine and justify the improvement of the studied mechanisms.

The statistical and information base of the study was provided by the legal framework and legislation of Ukraine, documents and regulations of public authorities, published official statistical information, monographs and scientific publications of leading domestic and foreign researchers, analytical information, Internet resources.

## Results and Discussion

### *PPP's international experience in the field of innovation, problems and ways to solve them*

Foreign countries serve as an example of effective communication between the state and business in the field of innovation. Consider the examples. The classification of countries according to the implementation of PPP processes in national economic systems is quite interesting (Kvitka, 2015) (Table 2).

**Table 2.**

*The classification of countries according to the implementation of PPP processes in national economic systems. Data provided by Kvitka (2015).*

Group	Countries	Specifics
Economically developed countries	United States, Canada, Japan, Singapore, United Kingdom, France, Germany, Ireland and Italy	Most areas are involved in the implementation of projects based on PPP. The main areas of PPP in the UK are education, health, housing, defense, roads, IT infrastructure, etc. The United States implements PPP projects in the field of environmental protection, rural development. France has a significant number of projects in the areas of healthcare, rail transport, road construction, and urban life support systems. It is not new for France to create innovation clusters, the so-called "poles of competitiveness", which unite private enterprises, state research, and educational organizations in a certain area. Ireland and Italy are paying more attention to PPPs in urban health, transport, and housing. In Germany, most attention is paid to the construction and reconstruction of urban infrastructure, education, defense, and health care. Abandoned land restoration projects are also being implemented quite actively. Spain has focused on developing PPP in port development, health care, road construction, and providing cities with adequate infrastructure.
Countries with a medium level of PPP (intermediate countries)	Spain, Portugal, the Netherlands	The Netherlands has identified education, transport (rail and road), and housing and communal services as priority areas for PPP.
Countries where the use of PPP is just beginning	Luxembourg, Belgium, Greece, Norway	The use of PPP is just beginning

It is worth noting the countries that pay significant attention to innovation in PPP. For example, Austria is known for the Kplus program, which aims to create cooperative research initiatives between public institutions and private businesses on a long-term basis. There is also a PPP program Kind/Knet, which provides infrastructure and networks for the transfer of knowledge and technology. Australia has introduced a system of incentives for public-private partnerships in innovation, creating a network of Cooperative Research Centers. Their purpose is to ensure the transfer of knowledge and the commercialization of innovations. In China, research universities have a government-funded technology transfer structure out of the total amount allocated to the institution.

Foreign countries consider the effect of PPP projects to be positive. Thus, PPP projects in the field of innovation have economic effect, measured by financial indicators and the size of financial flows, growth of business capitalization, etc.; political effect, which is

manifested in increasing the level of business reputation of the company and trust in government; social effect, which demonstrates the impact of the implemented PPP project on changes in living standards and raising social standards.

#### ***General principles of public-private partnership in the field of innovation***

In the science and law of different countries, the term "PPP" is considered from several points, which gives grounds to say that there is no single approach to this issue and there is a need to study its content and further clarify the distinctive features.

From the analysis of the definitions of the essence of PPP, described in domestic legislation, development programs of world organizations and proposed in the scientific literature, we can suppose that the essence of the concept of "PPP" is considered from several positions (Table 3):



**Table 3.**  
*Positions on the essence of the concept of "PPP". Data provided by Pavlyuk, K., & Pavlyuk, S. (2010).*

Positions			
as a form of cooperation between the state and the private sector in certain areas of activity;	as the relationship between the state and business in order to implement socially significant projects;	as an agreement between public and private parties in the field of production and provision of infrastructure services;	as a means of improving the efficiency of budget financing.

Therefore, as can be seen from the above positions (Table 2), PPP should be understood as an innovative organizational and economic model of mutually beneficial cooperation between the state and private partners represented by business structures and business entities, which provides for the transfer of private business certain powers for the design, management, financing, operation and maintenance of facilities for the implementation of socially significant projects.

The legal basis for the interaction of business and the state in Ukraine is enshrined in the Law of Ukraine "On PPP" (Law No. 2404-VI, 2010). This Law establishes the organizational and legal basis for the interaction of public partners with private partners and the basic principles of public-private partnership on a contractual basis and regulates contractual relations between the state and the private sector in the form of concessions, joint activities, and other agreements. Among the fundamental principles of the Law are the following: equality before the law of public and private partners in the conduct of public-private partnerships; prohibition of any discrimination and restriction of the rights of private partners, except as provided by law; coordination of the interests of public and private partners to achieve mutual benefit and achieve the goals of public-private partnership; fair distribution of risks associated with the implementation of public-private partnership

agreements. Also, the Law provides for the PPP examination procedure before the announcement of the tender. At the same time, the Law of Ukraine "On Concessions" (Law No. 997-XIV, 1999) and other legal acts do not provide for such an efficient analysis procedure, which indicates the lack of a unified approach to the procedure. A vital document that determines the organization of PPP is the Resolution of the Cabinet of Ministers of Ukraine "Some issues of organization of PPP" (Resolution No. 384, 2011). This Resolution regulates the procedure for conducting a tender to determine a private partner for public-private partnership on state, municipal property, which determines the mechanism of preparation and implementation using the principles of transparency, objectivity, and non-discrimination of the competition for determining a private partner, determining the winner of the competition and concluding relevant agreements in the framework of PPP. The Resolution also states that if the laws governing the relations arising in the process of concluding these agreements, or in accordance with such laws established a different tender procedure, the tender procedure established by such laws or in accordance with such laws.

From the analysis of statistical data, we can conclude that the experience of PPP projects in Ukraine is available, but the number of projects is insignificant in the country (Table 4).

**Table 4.**  
*The number of contracts of PPP as of January, 1, 2021. Data provided by Spilno (2017); Ministry of Economy of Ukraine (2021).*

The total number of contracts as of 01.01.2021 – 192		
Implemented	39	29 - concession agreements 6 - on joint activities 4 - other agreements
Not implemented	153	118 - are not executed 35 - terminated / expired

In today's reality, PPP is seen as a tool for innovation at the local and national levels. In this

case, the PPP can operate on the basis of one of two models of PPP (Table 5).

**Table 5.**

*Two models of PPP. Data provided by Kruglov (2020); Zakharina, Simonenko, & Sikevich (2018).*

PPP models	
<p><b>Concession model</b></p> <p>The state orders private investors to build large capital-intensive facilities at their own expense. Upon completion of construction, the facility was leased by the state for a long term. Thus, private investment was repaid by paying rent, and after the lease expired, the object was transferred at a token value or free of charge to the state. In many cases, the investor was involved in the further operation of the facility and received income from it.</p>	<p><b>Organizational model</b></p> <p>Ensures the organization and establishment of sustainable links between the public, private and third sectors to promote economic and social development policy. In PPP, which can take place in any field and to any objects of development, the public partner is not only the state but also the regional entity (territorial community), state and municipal enterprises, institutions, organizations, organizations. unity). Within this model, the PPP is seen as an effective model for implementing innovation policy at the EU and OECD levels.</p>

Thus, there are different approaches to understanding PPP and the model of its implementation, but regardless of the model, this legal instrument plays an important role in economic development and implementation of innovative projects.

### Conclusions

1. Ukraine needs to thoroughly address the model of PPP development in the innovation sphere, which would provide a triad "business - science - state" and would allow forming a national innovation system. In turn, the institutional support of public-private partnership processes will create conditions for the real involvement of private businesses in the field of innovation and will form the country's competitive advantages.
2. Public-private partnership projects are mutually beneficial. But for real influence on the economy, first of all the state needs to develop a concept and strategy of public-private partnership; enact laws that will be effective in regulating public-private partnership relations, such as stimulating tax and budget legislation; raising awareness and skills of civil servants and staff involved in the system of public-private partnership, etc.
3. For a viable PPP, it is important to address the ability of government partners to make long-term commitments to the PPP contract; to form a system for monitoring the progress of project implementation, etc.

For further research, it is necessary to pay attention to individual innovative projects in the

field of PPP, to find out their effectiveness, and to analyze international experience in this field.

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## University leadership styles using the Kaizen approach

### Estilos de liderazgo académico utilizando la metodología Kaizen

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#### Abstract

The current research seeks to enhance current university leadership styles by using the Kaizen approach from a university leadership point of view it also highlights the requirements needed to improve university leadership by applying the Kaizen approach. To achieve these objectives, the research uses the questionnaire as a tool to collect research data and applies this to the leaders, faculty, and staff of four universities in the MENA area. The research sample consists of 160 individuals (including deans, co-deans, department heads, faculty, staff, and employees) from four different universities. The research concluded with several results, from which the majority of the sample first agreed that there is a lack of a Kaizen approach culture among university leadership, and also agreed on the importance of applying Kaizen principles as a model for enhancing university leadership.

**Keywords:** Kaizen, universities, leadership, Higher education, management, enhancement.

#### Introduction

Organizations often seek to improve the quality of their management, and in this context, they search for the most effective and newest methods to support their institutional system. Currently, universities wish to be acknowledged as a source of good-quality higher education. As such, they constantly strive to discover innovative ways of performance enhancement.

Universities, as an educational sector, are currently one of the most dynamic sectors today

#### Resumen

La investigación tiene como objetivo mejorar los métodos de liderazgo universitario utilizando el enfoque Kaizen desde el punto de vista de los empleados universitarios, y también destaca los requisitos para mejorar el liderazgo universitario mediante la aplicación del enfoque Kaizen. Para lograr estos objetivos, la investigación utilizó el cuestionario como herramienta de recolección de datos de investigación, y se aplicó a líderes, docentes y empleados de cuatro universidades de la región de Medio Oriente y África del Norte, donde la muestra de investigación estuvo conformada por 160 individuos. (incluidos decanos, jefes de departamento, profesores y empleados) de cuatro universidades diferentes. La investigación concluyó con varios resultados, la mayoría de la muestra coincidió en la débil aplicación de la metodología Kaizen entre los líderes universitarios, así mismo coincidieron en la importancia de aplicar los principios Kaizen como modelo para el fortalecimiento de los líderes universitarios.

**Palabras clave:** Kaizen, universidades, liderazgo educativo, estilos de liderazgo, desarrollo, educación superior.

and, as such, need tools to create and monitor quality improvement for each aspect of their managerial processes. Relying on this, many developing countries have recognized the importance of higher education and have committed themselves to the development of the workforce by providing policy support and substantial funds to create one of the world's largest systems of higher education (Naik, 2004). The challenges faced by universities, such as students demanding continuous excellence in

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higher education, raising standards of accreditation, and competitiveness between universities, mean that traditional styles for the quality management of education, administration, and modern strategies of universities must be altered (Khayum, 2017). One of the more recent trends in university leadership is the methodological Kaizen approach, with its essence emphasizing the encouragement of innovation and change, demonstrating confidence in the ability and participation of staff in defining the objectives of the organization, and empowering them administratively; thus, it contributes to making them more aware of the tasks that they are assigned, and more capable of completing them, thus increasing the global competitiveness of universities (Thessaloniki, 2006).

The Kaizen model also contributes to the enhancement of the performance of the university and goes forward with the process of improvement in every aspect of their operations. Thus, the desired improvement of universities as educational institutes can be very well fulfilled by applying Kaizen. What is the meaning of 'Kaizen'? Kaizen is a Japanese word consisting of two phrases: Kai meaning changing and Zen meaning for the better; that is, the whole word means changing for the better (Eteir, 2007). Kaizen is a Japanese philosophy that refers to continuous and gradual improvement. It focuses on all institute management aspects, social, personal, and practical, and connects quality and improvement (Imai, 1989); therefore, it is a suitable leadership approach for organizations that need quality, change, and improvement. This type of management, which one could call Japanese management, has emerged as a new, organized, and effective management style that has proven its effectiveness in changing management for the better.

In the context of the continuity of improvement, and regarding Japanese management, *kaizen* means "continuous improvement", involving the entire workforce from top management, to middle managers and workers (Lindell, 2014). Kaizen philosophy emphasizes continuous and gradual improvement, which allows major change and provides a basis for collecting the factors of success, such as the key concepts of strategic planning, assessment, and total quality management (Muffo & Krallman, 1992); therefore, it is a way to create leadership change within the university community. This has given the researcher the motivation to conduct this research, with the hope of contributing some of this research to highlight Kaizen as an efficient,

effective, and systematic approach for university leadership change, which is needed.

This research aims to:

- Identify university leadership regarding the Kaizen approach from the perspectives of university leaders and staff members.
- Highlighting the requirements for improving university leadership by applying the Kaizen approaching light of its principles.

The research seeks to answer the following questions:

1. How does the Kaizen approach to leadership relate to higher educational institutions in the MENA area?
2. What are the requirements for improving university leadership by applying the Kaizen approaching light of its principles?

This research contributes significantly to extending the current literature relating to improving university management by reviewing previous studies that have processed Kaizen as a leadership approach at universities or higher education institutes all over the world. It attempts to close the gap in the current literature regarding applying Kaizen in the educational sector. The research also emphasizes universities' need for changing their traditional leadership styles and approaches, to the present time that is characterized by scientific and economic change. The research thus stresses the necessity of transformation towards modern styles of leadership, especially in universities, as they are a resource for future workforces. The current research, therefore, highlights Kaizen as a proposed approach. This is a Japanese strategy that aims to create major changes in university leadership and continuous improvement over all aspects of university leadership. The research also highlights the leadership styles regarding Kaizen in the MENA area, where leaders are usually resistant to changes and are used to depending on traditional leadership styles.

## Literature Review

### The Kaizen Concept

Kaizen literally means continuous improvement, which can be applied to steadily enhance our personal, family, social, and work lives. Concerning organizations, Kaizen means continuous improvement for all human resources, leaders, and employees alike (Imai,

1997). We can also define Kaizen in a strategic context as systematic actions that have been taken to accumulate improvements and enable organizations to beat their competition. (Macias et al, 2017).

Kaizen is a system that calls for teamwork and cooperation; it comprises human aspects, such as self-esteem and creativity. It is a strategic approach that is used to achieve the aims of an organization (Keijiro, 2018). For some researchers, Kaizen is a kind of philosophy for management that creates changes or gradual improvements in work systems or processes, reduces waste, and thus improves work performance, Salah, S. A., & Sobhi, N. (2018) It must also be mentioned that Kaizen, within the literature review, means quality management, and relates to lean management.

The Kaizen approach has been given many definitions during its development phase; however, they all focus on continuous improvement.

Within the Kaizen approach study, there are many concepts, the most important of which are as follows:

- KAIZEN - continuous improvement
- KAI – change
- ZEN - good (do better)
- GEMBA – the actual physical place where each employee works, the place where we add value
- GEMBUTSU – the unconformable physical/touchable element (out-of-order equipment, scrap)
- MUDA – loss, scrap, scantling, any activity or process that is not worthy
- PDCA – the cycle of ‘Plan, Do, Check, Act’ to standardize and prevent the recurrence of nonconformities (Titu, 2010)

The previous concepts must be realized by leaders for the successful application of Kaizen, in addition to the key points of Kaizen, which will be illustrated in the following section.

### The main principles of Kaizen

For Imai, who established Kaizen, advancement and continuous enhancement correspond to the basic thought of a procedure in progressive improvement. Kaizen arrangements underline good judgment, ease, change, and continuous improvement. This philosophy advocates the utilization of normal sense and straightforward arrangements.

Kaizen philosophy refers to the ability to step back from all activities, observe the current situation, and propose appropriate improvements or solutions to problems (Abdulmouti, 2018).

There are five primary principles for Kaizen. Contingent upon collaboration, as every opinion is esteemed and considered, and utilizing each contribution as a prop to accomplish constant enhancement, Kaizen rationality perceives that there is dependably an opportunity to get better. Last, the Kaizen methodology depends on the quality of circles and workgroups that cooperate to take care of issues and can finish with creative changes.

The application process of a Kaizen event contents of:

1. Definition of the area to be improved
2. Key problem analysis and selection
3. Identification of the cause for improvement
4. Improving project implementation
5. Measuring, analyzing, and comparing results
6. Standardizing systems.

On the one hand, the application of the Kaizen principles supposes a continuous dialogue between the manager and the employees (vertical communication); on the other hand, it supposes a dialogue between the employees on the same hierarchical level (horizontal communication) (Titu, 2010).

The Kaizen concept also incorporates three key principles in one work method:

- *Commitment and persistence*: Improvement will not be achieved if there is no clear and strong motivation to seek and implement improvement, or if this effort is not sustained in the long term. The approach is a philosophy that should be adopted at work.
- *Small and incremental processes*: The Kaizen approach is against radical change, and its key methodology is to proceed by frequent small, but controlled attempts at improving practice.
- *Participative*: In an organizational context, the adoption of the philosophy by one employee alone would be pointless. Thus, it is important that all employees and departments within an organization adopt and practice the Kaizen work method (Leseure, 2010, p.192).

### **Kaizen and university leadership**

According to the development of leadership and its theories, there has been a growing interest in the role of leaders, especially within higher education (HE) institutions, in recent years. This interest has been driven both by the influence of HE institutions in developing learners who will later act as leaders in the wider society and by the changing shape of HE leadership itself in the face of global challenges in the sector. In this context, Kaizen appears to be a suitable method to use for university leadership; hence, one of the main elements of implementing Kaizen is the serious commitment of the leader (Swartz and Graban, 2013).

Kaizen is a system of continual procedures undertaken by an institute to improve its activities and processes, with the objective of improving the quality of educational and managerial aspects so that universities can meet their full potential (Reddy and Karim, 2014).

This approach has its origins in the fifth of W. Edwards Deming's 14 management points: "Improve constantly and forever the system of production and service" (Deming, 1982). It is commonly expressed as "continuous improvement." Deming represented continuous improvement as the repeated application of the cycle of Plan, Do, Study, Act (PDSA) to all activities in higher education institutions, in the pursuit of making them even better in terms of delivering value to society. Thus, according to the meaning and principles of Kaizen as mentioned in the previous section, the suitability of this approach to lead universities successfully becomes clear. However, the question that arises here is, what can the Kaizen approach introduce to the university leader? let us discuss the answer briefly in the next section.

### **The need for the Kaizen approach in university leadership**

The difficulties experienced in HE over recent decades have promoted the emergence of several leadership approaches which can be observed in many universities within the educational sector, including hierarchical models, individualistic models, collegial models, collaborative models, and transformative models (Black, 2015).

The leadership style that continues to prevail in universities can be criticized on two main grounds – first, that it fails to sufficiently develop robust styles of professional management (and can even be accused of perpetuating a 'cult of the

amateur'); and second, that it encourages conventional thinking and behavior that goes unchallenged because most university leaders have been bred within the system (Khayum, 2017).

Thus, universities need to develop new models of leadership to provide the increased intellectual resources that they need to make sense of the highly complex political, economic, social, and cultural landscapes of the modern 21st-century world (Khayum, 2017).

It is worth mentioning that the Kaizen model has already been used in various universities and higher education institutes all over the world and has proven its validity regarding continuous improvement and maintaining success in both academic and managerial aspects. For example, it has been used in Ireland (Irish University with over 20,000 students and over 2,700 staff members) as a tool for continuous improvement (O'Reilly, Seamus, et al, 2017). Additionally, in the USA, for example, Kaizen is used to improve graduate business school degree programs. The study has suggested that Kaizen can help higher education institutions compete more effectively against both traditional non-profit, and newer for-profit sources of higher education (Emiliani, 2005).

In Germany, there is an example of Kaizen being used to evaluate teaching quality in terms of time, and to facilitate the short-term reaction of lecturers (Kregel, 2017).

In the Kingdom of Saudi Arabia, a study was conducted at 19 public universities to study the performance levels of Saudi universities in light of visual management and Kaizen concepts in different aspects (administrative, social, economic, and political), where the study recommended using Kaizen to measure university performance (Barhamin, 2012).

Based on the previous models, Kaizen, as a model for leadership, has proven its ability for continuous progress.

### **Implementing the Kaizen approach in universities**

Many factors help to attain successful change, which leads to continuous improvement through the Kaizen approach. Antony et al. (2012) identified seven critical success factors for the successful deployment of Kaizen in universities: (i) leadership support and commitment; (ii) effective communication at all levels; (iii)



strategic and visionary leadership; (iv) develop readiness within the university; (v) be sure about available resources and skills to facilitate implementation; (vi) selection of programs and prioritization; and (vii) change organizational cultures.

Salewski and Klein (2009) developed five steps to launch Kaizen in universities, which are mentioned, in brief, below:

**Step one:** Find early adopters who have an initial interest or need to improve their processes.

**Step two:** Make it clear that “transactional lean” is different and sometimes more difficult than “manufacturing lean”.

**Step three:** Create and use a central improvement office that will support

departmental leaders and early adopters in their efforts to launch continuous improvement activities.

**Step four:** Once a department is selected to undertake the initial launch of lean processes at the university, determine what the initial trial *Kaizen* events should be.

**Step five:** Spread the effort to other university areas after the first event is completed, and identify additional university departments that show an interest in starting a lean initiative.

Al-Harbi, 2017 proposed a further system to implement Kaizen in universities. He proposed steps and then illustrated them through the following shape:

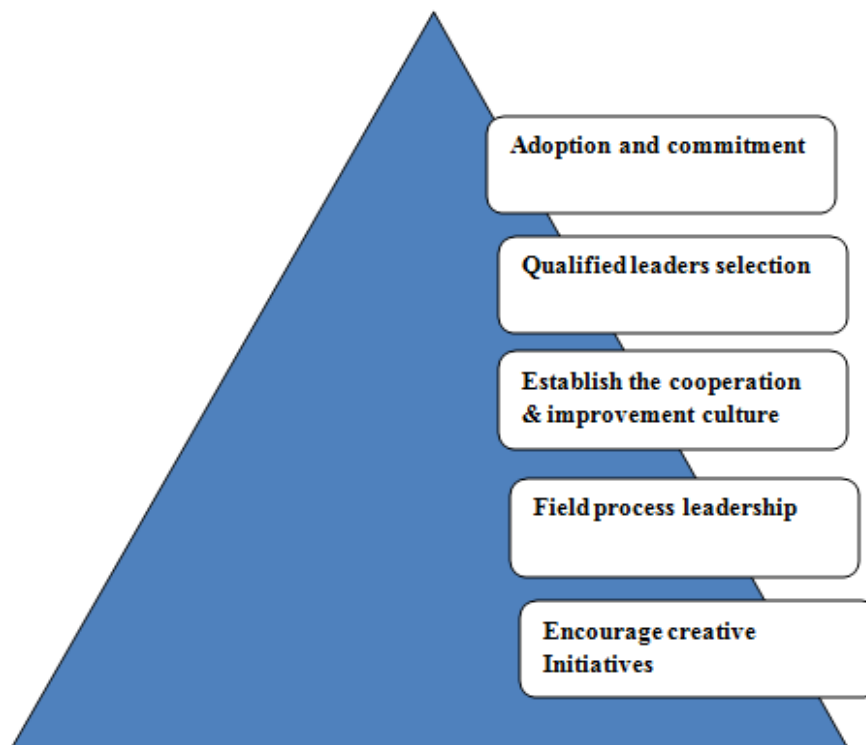


Figure 2. Requirements for university leadership improvement Al-Harbi 2017, p. 254

### Research methodology

This research uses the analytical descriptive approach, as it is the most suitable approach for the nature of the current research. This approach is used for quantitative data that require statistical assistance to extract information from them (Leedy, 1981, p.124). This helps to describe the perspectives of the research sample, identify prominent patterns of the studied subject, and then facilitate the analysis of the data.

### Overview of selected Arabian universities

This research selected four universities located in the MENA area in four different countries (Egypt, Tunisia, Jordan, and Saudi Arabia), with two of them being located in Asia and the other two in Africa. These are the most well-known universities in the region. The next section introduces a brief description of each university.

**University of Kairouan:** The University of Kairouan was established in 2004 and is located in Kairouan city. It is officially accredited by the Ministry of Higher Education and Scientific Research, Tunisia, with a rank enrolment range of 10,000-14,999 students. It offers programs that lead to many academic degrees that are granted by the university, such as pre-bachelor's degrees (that is, certificates, diplomas, and associate's or foundation degrees), as well as bachelor's, master's, and doctorate degrees in several study fields. These higher-education institutions have a selective admission policy depending on entrance examinations. The rate of admission ranges from 60% to 70%, making this Tunisian university a selective institution to some extent. It allows enrolment for international applicants.

**Northern Border University:** Northern Border University was built in 2007. It is located in Saudi Arabia in the city of Arar. The university comprises 12 colleges granting many degrees, such as bachelor's and master's degrees. Northern Borders University represents the last competing university of education blocks, in terms of the coverage of all regions. It receives approximately 3,000 applications from across the globe annually. The university started with seven different schools of learning, including Historical Studies, Environment, and Ecological Studies, Buddhist Studies, Philosophy, and Comparative Religion, Languages and Literature, International Relations and Peace Studies, Information Sciences and Technology, and Business Management schools. It also comprises many colleges in different specializations, such as the Faculty of Medicine, Faculty of Business Administration, Faculty of Science, and the Faculty of Arts and Education. It also includes several Deanships that serve both students and staff, with the most important of them being the Higher Education Development Deanship, which works on advancing education at the university o keep up with global developments. Continuous Learning and Community Service Deanships help the community thrive.

**The University of Jordan:** The University of Jordan was established in 1962. It was chosen to be a distinctive university in all aspects, especially academic and research, seeking to keep up with international standards. It introduced and placed a wide range of academic programs in the hands of its students, allowing them to choose from more than 250 academic programs offered by 24 colleges. In various disciplines, it introduces 94 different programs in

Medicine, Dentistry, Pharmacy, Nursing, Rehabilitation, Science, Agriculture, Engineering, Information Technology, Arts, Business Administration, Sharia, Law, Physical Education, Arts and Design, International Studies, Foreign Languages, Tourism, and Archaeology. At the postgraduate level, the university presents 38 Ph.D. programs, representing more than 50% of the Ph.D. programs in Jordan, and 111 Master's programs, representing approximately 25% of the Master's programs in Jordan, with the number of graduates reaching more than 200,000 globally. The graduates of the University of Jordan rank at 267 in the world in terms of employment reputation, according to QS 2018.

**Cairo University:** Cairo University is the second oldest university in Egypt and the third oldest in the Arab world. Its various faculties were established during the reign of Muhammad Ali (approximately 1820). After a popular campaign to establish a modern university, Cairo University was founded on 21 December 1908 under the name Egyptian University. It was later renamed the University of Fouad I and finally Cairo University after the revolution of 23<sup>rd</sup> July 1952. It includes a large number of university colleges. The university is located in the city of Giza, west of Cairo. Three Nobel laureates belong to Cairo University. In 2004, it was globally ranked among the top 500 universities worldwide and has over 155,000 students annually. This ancient university is known globally as the most famous among Arabian universities. It is one of the 50 largest institutions of higher education in the world by enrolment and offers all academic degrees at the postgraduate level. Several globally famous scientists have graduated from this university, including the well-known surgeon Magdi Yaqoub.

### Research sample and population

The population of this research was made up of 160 leaders and employees of the selected four universities in the Arab region. The research sample was purposefully selected, as they are from the most famous universities in the region. The research sample's individuals were then chosen by sending e-mails to the selected universities' staff members, including the Dean, Co-dean, Department Heads, and other employees. There was a total of 160 leaders: 98 males, and 62 females. The following table explains the sample distribution:

**Table 1.**  
*Sample distribution of the selected universities.*

List of universities, the population of academic leaders, and sample size				
Universities	Country	Sample size		
Cairo University	Egypt	40		
North border University	Kingdom of Saudi Arabia	54		
Qurawan University	Tunisia	29		
Jordan University	Jordan	37		
<b>Total</b>		<b>Male</b>	<b>Female</b>	<b>Total</b>
		<b>98</b>	<b>62</b>	<b>160</b>

**Data Collection Tools**

A questionnaire was developed as the main tool for collecting data and consisted of closed- and opened-ended questions derived from the research questions and their objectives. The questionnaire comprises three sections. Section (A) relates to the personal information of the respondent, and sections B and C are questionnaires on leadership styles in light of the Kaizen approach, and the requirements of applying the Kaizen approach to enhance leadership in Arabian universities, respectively. The first axis consists of 17 items that have been drawn from the previous literature and studies that are related to Kaizen principles, the second axis consists of 20 items that have also been developed, depending on previous studies.

The questionnaire consisted of statements to which participants responded by assigning a grade from 1 to 5, following the Likert scale.

**Questionnaire reliability and validity**

The reliability and validity of internal consistency were calculated as follows:

- A. The Pearson correlation coefficient was used between the scores of each phrase and the total score of the topic to which it belongs.
- B. The Pearson correlation coefficient was used between the scores of each topic and the total score of the questionnaire.

As the results of the Pearson correlation coefficients between all the questionnaire phrases and their totals are statistically significant at a level less than (0.01), which indicates the phrase's coherence, they are valid for the study sample application.

The researcher also calculated the consistency coefficient of the questionnaire to verify the validity and constancy of the content by calculating the internal consistency between its paragraphs (Cronbach's alpha coefficient). The questionnaire recorded a coefficient with a value of 0.871, which indicates the stability of the tool.

**Data analysis**

For the objective of processing and analyzing the research data, the SPSS program was used. The analysis was conducted depending on the correlations, frequency, and percentages of the research sample opinions, after which the means and standard deviations are presented in the next tables to illustrate the results of these analyses.

**Results and discussions**

This research identifies university leadership in terms of the Kaizen approach and highlights the requirements for improving university leadership by applying the Kaizen approach.

This section presents the analysis of the data collected to answer the research questions to achieve the mentioned goals.

A total of 160 respondents completed the questionnaire; thus, these data were used in the analysis. Regarding experiences, the results showed that the majority of the sample(40%) had between 5 and 10 years of experience, 31.25% of the sample had between 0 and 5 years of experience and 22.5% had more than 10 years of experience. The results further indicated that 56.2% of the individuals had a doctoral degree, followed by 37.5% who held a master's degree. The data analysis also indicated that the majority of the research sample was staff members, followed by Department Heads at 23.1%, while the lowest percentage was among the College Deans (see Table 2).

**Table 2.**  
*Description of the study sample according to research variables.*

Variable	Category	Number	Percentage
Gender	Male	98	61.2%
	Female	62	38.7%
Experience	0-5	50	31.25%
	5-10	72	45%
	More than 10 years	36	22.5%
Position	Dean	20	12.5%
	Co-dean	30	18.7%
	Department chief	37	23.1%
	Staff member	63	39.3%
	Other	10	6.2%
Qualification	Doctoral	90	56.2%
	Master	60	37.5%
	Other	10	6.2%

The Statistical methods used in the analysis were:

High degree - scores arithmetic mean ranging from 3.50 to 5

Lower degree - scores arithmetic mean ranging from 1.00 to 2.49

For Toentify the reality of university leadership in light of the Kaizen approach (principles and dimensions of Kaizen), the arithmetic means and standard deviation ranking have been set out in Table 3to illustrate the results.

Medium degree - scores arithmetic mean ranging from 2.50 to 3.49

**Table 3.**  
*Leaders' perspective about the reality of university leadership regarding the Kaizen approach.*

Rank according to the questionnaire	Item	Mean	Standard Deviation	Rank
11	The university seeks to enable workers, and maintain previous successes	3.99	0.85	1
9	University leadership always seeks change	3.98	0.99	2
6	Leaders present themselves in the workplace daily	3.99	0.98	3
17	Work procedures and the exchange of tasks inside the university depend on electronic webs or PCs, rather than paper, to avoid wasting time with moving between offices, and poor storage of important files	3.85	0.90	4
7	Leadership seeks to participate in all parts (for example, staff and employees) of the decision-making processes.	3.62	1.00	5
3	University leadership always measures the variables and analyses the data that are related to the problems in a regular way	3.24	1.08	6
14	University leadership focuses on reducing MODA, in its processes, resources, time, etc.	3.22	1.00	7
15	University leadership focuses on the processes more than the results	3.11	0.82	8
2	Problems and issues that need to be solved or changed are regularly identified within the university's departments	3.17	1.02	9
9	University leadership works to resolve problems immediately	3.5	0.71	10

16	University leadership tends to identify all issues and objectives that have no added value within the university, to overcome or eliminate them later	2.71	1.18	11
4	University leadership usually develops several solutions cooperatively to seek to experiment with a valid solution	2.3	1.51	12
8	University leadership accepts suggestions and ideas that benefit their work, regardless of their resources	2.1	0.89	13
12	The university staff and employees have the right to change in their field of work	2.1	0.80	14
5	University leadership seeks to apply the best solutions after experimenting with their validity regarding two aspects - academic and managerial	2	0.25	15
6	University leaders present themselves in the workplace daily	1.9	0.1	16
13	University leadership uses more thoughtful and creative methods and does not depend only on increasing effort	1.88	0.13	17
<b>Total</b>		<b>2.4</b>	<b>0.82</b>	

Regarding leaders' perspectives about the reality of university leadership in light of the Kaizen approach, the previous table shows that the arithmetic means for the leaders' opinions is 2.4, which represents a weakness in the reality of university leadership in light of Kaizen, according to leaders' opinions. This also reflects those leaders still use traditional leadership styles in leading and managing university departments; this ensures the need for applying the Kaizen approach to maintain success and striving for continuous improvement for the university. These results are in agreement with Omar, 2018, who showed that the university staff at Menia University (Egypt) were not very knowledgeable about Kaizen as a style for leadership at the university. Additionally, a study by Al-Shareif and Al-Sahat (2014) in Tabuk (Kingdom of Saudi Arabia) emphasized the lack of knowledge

regarding Kaizen among university staff and identified the need to disseminate Kaizen culture.

This agrees with Al-Salami 2017, who conducted a study to improve educational leaders' performance in Jeddah (Kingdom of Saudi Arabia), where the most important results of the study were the requirements for the development of educational leaders' performance, in light of Kaizen, are very important.

**Identifying the requirements for applying the Kaizen approach to enhance university leadership**

To achieve this objective, the data analysis of leaders (research sample) is presented in the next table.

**Table 4.**  
*Leaders' Perspectives about Requirements for Applying the Kaizen Approach.*

Questionnaire No.	Item	Mean	Standard Deviation	Rank
1	Dissemination of Kaizen culture among university staff, and identifying its principles	4.25	1.02	1
3	Apply the QUAD model of Kaizen (identify the problem, find the solution, test the solution's feasibility, apply the solution)	4.17	0.90	2
2	Formwork teams to enhance performance rather than depending on one expert according to Kaizen principles	4.16	0.89	3
4	Measure the variables and analyze the data of problems and issues that are required for improvement and change	4.13	0.85	4
5	Continuing improvement through daily follow-up inside the university, physically, rather than through the office	4.09	0.84	5

6	Take Immediate solutions for small problems, which may cause more problems when neglected	4.13	0.90	6
7	Study all aspects (administrative, technical, academic) to discover what has no value and causes consumption of money and effort	4.12	0.88	7
9	Determine the time-wasting aspects (such as students waiting for lectures, waiting for research approval from academic supervisors, etc.), and then develop suggestions to overcome this problem of time-wasting	3.99	0.85	8
8	Determine waste in an academic aspect that represents elongated instruction, repetition, approval of repeated topics for research, etc.	4.1	0.80	9
10	Depending on computers in transcriptions, and recording staff and student data to avoid time-wasting as well as damage of paper files in storage	3.98	0.99	10
13	Depending on thinking and wisdom, and not on effort and money	3.88	1.094	11
14	Adopt an accountability policy for those who are reasonable for any mistakes, according to Kaizen principles	3.98	1.00	12
15	Concern about regulations and organization in all aspects, such as the admission of students and employment	3.85	0.88	13
11	The necessity for focus on processes, and manage from the event's location, as this is more positive than focusing on results, according to the Kaizen approach	3.85	0.80	14
12	Use the data and facts available instead of developing theories	3.62	1.00	15
16	Meet academic, technical, and financial requirements	3.66	1.1	16
17	Being mindful of human relationships and spreading the spirit of teamwork	3.64	1.015	17
18	Contributing to professional developments for university staff and adopting creative capabilities and talents	3.65	0.77	18
19	Providing the opportunity for university staff to make changes without the need for administration approval	3.63	0.99	19
20	Partnership in developing plans and programs of study, developing curriculum, and others which contribute towards continuous improvement	3.56	0.81	20
<b>Total</b>		<b>3.8</b>	<b>0.91</b>	

From the results of the data analysis (university leaders' opinions), it was found that there is an agreement by the leaders regarding the need to apply the Kaizen approach in university leadership; hence, the total axis shows the arithmetic mean (3.8); thus, the leaders tend to apply previous items from the second axis that indicate the Kaizen principles. These results are in line with Omar's 2018 study, which revealed the need to develop a proposed scenario in light of a particular method that had proven successful in improving performance, the Japanese method (Kaizen). These results are in line with the results of Youssef (2013), which suggested the importance of applying the Kaizen approach, especially the four stages (*Plan-Do-Check-Act*), for the enhancement of leadership in Egyptian universities. In a study by Emiliani (2005), Kaizen was found to be an effective leadership style that improves higher education institutions. Kaizen can help higher education institutions compete more effectively.

Alharby's (2017) study also emphasizes Kaizen as a style that is needed by Arabian university leaders. It found that Kaizen meets modern requirements to enhance university leadership, and it is necessary to adopt the Kaizen approach with a real commitment to applying it; however, in Al-Kaser's (2016) study, the respondents strongly agreed on the importance of the requirements of the Kaizen strategy for the administration at Shaqra University, Saudi Arabia.

### Discussion

This research seeks to achieve specific objectives – to identify the university leadership style regarding the Kaizen approach from the university leaders' and staff's perspectives – and to illustrate the requirements to improve university leadership by applying the Kaizen approach. The results revealed that the majority of the leaders at the four chosen Arabian

universities agreed on the weakness of using the Kaizen approach for enhancing leadership and administration, seeking changes for the best, and keeping up continuous improvements.

The results of the perspectives of the university leaders about applying the Kaizen approach for the enhancement of leadership, administration, and management of all aspects (managerial, financial, academic) showed that they are all in agreement about the needs of Arabian universities. Although there are differences in their locations, they all agreed that using traditional leadership styles makes change and keeping up with globalism very difficult. The results also revealed the importance of applying Kaizen principles to enhance leadership at their university, such as applying the ngQUAD model of Kaizen (identifying the problem, finding the solution, testing the solution's feasibility, applying the solution), avoiding time-wasting, continuing improvement through daily follow-up within the physical location rather than from within their offices, and Kaizen principles.

### Conclusions and recommendations

The study concluded that although there is a success with Kaizen as a leadership approach and its strategies and principles are strongly beneficial for supporting and enhancing leaders in the management of their university's departments, it is still not applicable by university leaders, and they also have very little information about this approach.

The leaders of the different Arabian universities (University of Kairouan, Northern Border University, the University of Jordan, and Cairo University) all agreed on the need to apply Kaizen in university leadership.

The principles of Kaizen, which have been placed in the research tool (the questionnaire), seemed to be very necessary from the perspectives of the university leaders.

The research contributes to raising awareness about implementing the Kaizen approach, targeting the increase in efficiency, and quality of university leadership. The research is considered small work to meet the needs of time and evolution in higher education. Although the current research is important, it does have several limitations, such as the low number of examined universities (four), and it would also be better if postgraduates and new members of staff were asked about leadership styles. However, the problem that the researcher mainly faced was a

lack of previous research relating to Kaizen. Thus, there is a need for further studies in the respective field to avoid limitations in this research.

In light of this research, the authors recommend using the Kaizen approach and its strategies and principles as a method for the enhancement of university leadership and emphasize conducting further studies about Kaizen.

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## The phenomenon of connotation in the comparative aspect (on the material of English and Ukrainian languages): problems of modern research

**Явище конотації в зіставному аспекті (на матеріалі англійської та української мов):  
проблеми сучасного дослідження**

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### Abstract

Given that connotative components cause the appearance of new lexical-semantic variants in the token's semantic field and create opportunities for metaphorical, metonymic, ironic nomination, it is essential to analyze the phenomenon of connotation, which is present in phraseological and paremiological units of language, slang, and occasionalisms. The work aims to study the phenomenon of connotation in a comparative aspect, through the prism of English and Ukrainian languages, as well as to identify key issues of modern research of this phenomenon. The object of research is the connotation in the comparative aspect. The following methods were used during the research: analysis and synthesis, observation, method of definitive analysis, method of linguistic description of linguistic facts, comparative method. As a result of the research, the phenomenon of connotation in the comparative aspect is analyzed, based on the materials of the Ukrainian and English languages, and also the problematic aspects of the interlanguage comparison are singled out. It was also noted that it is crucial to promote a more in-depth study of connotations in psycholinguistics, sociolinguistics, ethnopsychology, linguoculturology, as this

### Анотація

З огляду на те, що конотемні складники спричиняють у лексемі появу у семантичному полі лексеми нових лексико-семантичних варіантів та створюють можливості для метафоричної, метонімічної, іронічної номінації, важливо проаналізувати явище конотеми, що наявне у фразеологічних та пареміологічних одиницях мови, жаргонній сфері й оказіоналізмах. Метою роботи є аналіз явища конотації в зіставному аспекті, крізь призму англійської та української мов, а також виокремлення ключових проблем сучасного дослідження цього явища. Об'єктом дослідження є конотація в зіставному аспекті. Під час проведеного дослідження було використано такі методи: аналіз і синтез, спостереження, метод дефініційного аналізу, метод лінгвістичного опису мовних фактів, порівняльний метод. В результаті дослідження проаналізовано явище конотації в зіставному аспекті, ґрунтуючись на матеріалах української та англійської мов, а також виокремлено проблемні аспекти міжмовного зіставлення. Також зауважено, що важливо сприяти більш поглибленому вивченню конотації у психолінгвістиці, соціолінгвістиці, етнопсихології, лінгвокультурології, адже такий підхід надає можливість для вдосконалення

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approach provides an opportunity to improve the methodology of research of connotations in the lexicological field.

**Keywords:** connotation, associative-image representation, semantics, tokens, semantic content, phonetic means.

## Introduction

Connotation is a phenomenon that covers the sphere of associative-image representation of a certain reality based on awareness of the internal mechanisms of the name. Given that in the process of identifying the basis for the emergence of connotative shades of lexical meanings of words, their bilateral nature is clarified, it is vital to examine the associative and emotional vectors of the mechanism of such connections. Linguistic traditions and various modern scientific concepts have different interpretations of the connotation, due to different approaches to clarifying its specificity and status, which leads to several theoretical problems.

An analysis of the retrospective aspect shows that connotation is a multifaceted phenomenon that entered linguistics in the 17th century thanks to Por-Royal grammar but received considerable attention from scholars in the 20th and 21st centuries, when more detailed studies of semiotics, stylistics, pragmatics, communicative linguistics, cognitive linguistics, intertextuality theory, etc. began (Zaichenko, 2019).

Unfortunately, although a significant amount of research is available on this linguistic phenomenon, neither the status of the connotation nor its structure and limits of functioning have been determined to date.

A comprehensive analysis of the phenomenon of connotation and clarification of its problematic aspects at the present stage examined connotations in Ukrainian and English through a comparative aspect and found that the basis for their linguistic embodiment are figurative, evaluative, emotional, and expressive components of conothemes that have cognitive and emotional character, and in the process of an embodiment of connotation in speech situations they are layered with additional components of the semantic structure of the word, which have ethnocultural or sociocultural nature. No less diverse are the definition of connotation and the ability of connotations to form a single sociolinguistic-psychological connotative model of meaning, since connotation is mostly not only

методики дослідження конотацій у лексикологічній сфері.

**Ключові слова:** конотація, асоціативно-образне уявлення, семантика, лексеми, семантичний зміст, фонетичні засоби.

and not so individual, but also common to native speakers, some scholars even introduce the concept of "connotation sphere", which include areas in which language tools are combined with a certain type of ideas and sensations.

The paper focuses on favorable conditions for the actualization of connotations, including the fact that the contextual environment, which can be not only a factor in the emergence of additional values but also the background of their functioning is quite favorable for connotation. As for the implementation of the connotation, the most significant are situational, cultural, and psychological contexts. The manifestation of the fact that the systemic duality of connotation determines the duality of its properties is the simultaneous consideration of connotation as a systemic, fixed, embedded in the value of the language unit mechanisms of secondary nomination within a particular social worldview, and subjective, optional, with some associative nature and is realized during the functioning of language units in the context. This suggests that connotations are characterized by variability, which may be influenced by the historical period, political situation, etc. Also, during the study, it was noted that during the implementation of connotative information due to the image, which is the basis of analogy, there is a transition of components of conceptual structures in language. The connotative properties of word-forming means were not ignored in this study, as word-forming elements cannot but have a connection with connotation.

## Theoretical Framework or Literature Review

During the study of the phenomenon of connotation, the work of such authors as Babi (2020), Vynnychenko (2005), Hashibayazova (2019), Hrymalyuk (2020), Zagnitko (2012), Zaichenko (2019), Ishchenko (2010), Kudyba (2004), Kunin (1986), Marchuk (2015), Maslova (2001), Matsko (2003), Mikhailovich (2015), Mozovaya (2010), Telia (1996), Phil (2012), Uzhchenko (2007).

**Table 1.**  
*The works of scholars on the phenomenon of connotation.*

Scholar	Position
Babiy (2020)	The author explores the features of lexical and stylistic connotations of advertising text. Thus, the paper focuses on the feasibility of using lexical and stylistic connotations to increase the effectiveness and influence of advertising texts. Also, the author considers cases of connotation formation with the help of synonymous elements of language, terminological constants, socio-political vocabulary and describes in detail the effects that can be achieved through the use of such language units in the structure of advertising text.
Vynnychenko (2005)	According to the researcher, the problem of phraseological equivalence and ways of presenting the meaning of phraseological units in phraseological dictionaries is still very relevant. The author highlighted the concept of word connotation and the connotation of a component of a phraseological unit and established the interdependence of interlingual equivalence of phraseological units and the connotation of their components.
Hashibayazova (2019)	In Hashibayazova's article, an analytical review of the approaches to the definition of the term "connotation" presented in linguistics is made, and the problems of the current state of theoretical elaboration of the connotation are highlighted, the content of the term is characterized, its optimal definition is substantiated. Moreover, the author summarizes the approaches to distinguishing between broad and narrow understanding of connotation, resulting in an emphasis on the synthesis of both approaches. Thus, the author distinguishes between two types of connotation – usual and occasional. It is noteworthy in the author's research to determine the structure of the components of the connotation of adjectives in the system of language and speech and to find out that connotation is additional semantic, emotional, pragmatic and stylistic shades of usual or occasional character, which are part of the semantics of the word, expressing the emotional and evaluative attitude to reality.
Hrymalyuk (2020)	Hrymalyuk's (2020) work is aimed at the analysis of integral idioms with color symbolism with explicitly token and implicitly semantic connotations and their use in journalistic texts of the German-language press of the XXI century. The author emphasizes that today there is no single interpretation of the term "connotation", so after analyzing the views of various scholars, the author offers his understanding of the connotation of a phraseological unit. Also, explicit and implicit connotations in the semantic structure of phraseological units are considered, tokens-symbols are analyzed, namely coloronyms that are part of idioms taking into account their emotional, evaluative, cultural-symbolic, connotative load. The author divided them into positively and negatively marked idioms, determining which group is dominant. The article also places great emphasis on the role of the internal form of the idiom and the associative and figurative information contained in it in the creation of explicit token connotations.
Zagnitko (2012)	Zagnitko's (2012) dictionary describes modern linguistic terminology with an appropriate interpretation of terms, disclosure of their etymology, connections with other terms, and coverage of their ambiguity and functional load in different sections of linguistics. The peculiarity of the dictionary is the maximum coverage of traditional linguistic terminology with the involvement of the latest terms and concepts with the manifestation of their authorship, possible differences in use, tracing of synonymous and antonymous connections.
Zaichenko (2019)	In his research, Zaichenko (2019) analyzed the general trends of interpretations and descriptions of the concept of connotation by domestic and foreign scholars, taking into account the specifics of approaches to the definition, boundaries of functioning, separation of components of connotative shade of language unit. As a result, the scientist provided his approach to the definition, typology, and description of the properties of connotation based on its systemic duality.
Ishchenko (2010)	The subject of Ishchenko's research was one of the components of connotation - the evaluation component. Thus, the author understands this component as a positive and disapproving assessment, which is contained in the verbal meaning.

Kudyba (2004)	The author analyzes the specifics of the use of verbal tools in advertising text.
Kunin (1986)	The subject of Kunin's research was the phraseology of individual English words.
Marchuk (2015)	Marchuk's article considers the connotative space of the world of English-language fantasy, as well as the fantasy artistic space and the linguistic means of its representation. According to the author, poets often deviate from the denotative meanings of words to create fresh ideas and images. A brief overview of the use of the concept of connotation in different fields of linguistics and philology shows that in all cases it is the same mental-linguistic mechanism, and connotation, in turn, especially in a fantasy work, provides a basis for symbolic meanings, because the symbolic meanings of objects differ from their literal meaning.
Maslova (2001)	The subject of Maslova's (2001) research was linguoculturology.
Matsko (2003)	The author Matsko (2003) developed a course on the stylistics of the Ukrainian language, which considers theoretical issues of stylistics, sources of origin and formation of linguistic stylistics, its basic concepts, and categories. It is meaningful that this course presents the definition and classification of styles, analyzes the specifics of development and formation of styles and backgrounds of the modern Ukrainian language, genre, and stylistic differentiation of language texts.
Mikhailovich (2015)	Investigating manipulative techniques, Mikhailovich (2015) investigated the formation of the connotation of foreign language in advertising texts as an effective manipulative technique.
Mozovaya (2010)	Mozovaya (2010), like several other scholars, studied the connotation in the context of advertising to the consumer.
Telia (1996)	The object of Telia's (1996) research was individual phraseologies and their perception by different scholars.
Phil (2012)	Phil's (2012) article describes a group of phraseological units of the Ukrainian language with pronounced national and cultural semantics. The author notes that in the Ukrainian phraseological fund there are toponyms that indicate that the language sign belongs to a certain culture.
Uzhchenko (2007)	Uzhchenko's (2007) book is devoted to the phraseology of the modern Ukrainian language, which became the basis for the study of the phenomenon of connotation.
Ukrainets (2013)	The study of the Ukrainets (2013) scholar is devoted to defining the role of connotation as a linguistic category that forms not only emotional but also meaningful dominant of poetic language.

However, despite the great interest of scholars in studying the phenomenon of connotation, the problematic issues of the comparative aspect of Ukrainian and English on the phenomenon of connotation remain not reflected in the work of scientists, and, therefore, this issue needs more thorough analysis.

**Methodology**

To substantiate the definitions and general theoretical principles of the work, the method of analysis and synthesis was used. In general, the analysis is a method of decomposition, division of something integral into constituent elements, properties, relations, aspects, subsystems for further in-depth consideration of each of them. For this purpose, use the abstraction or division of the subject into components. Therefore, the analysis helped to investigate the issue of connotation as a phenomenon more thoroughly. Synthesis, in turn, as a combination of disparate knowledge of an object, its parts, and properties, has helped to reflect connotation as a holistic phenomenon, an interconnected system.

The method of observation was used to provide the research process with empirical information. Its significance and value are due to the extraction of material directly from life while observing the embodiment of the phenomenon of connotation in human life. Thanks to this method and systematic and purposeful perception, fixation of phenomena to study their specific changes under certain conditions, analysis, and use in practice. In this case, the method of observation was applied in compliance with such rules and requirements as the desire for objectivity; the focus of observation on significant phenomena, etc.

With the help of the method of definitive analysis, it became possible to determine the content of scientific definitions of connotation. Definitional analysis, as a traditional method of semantic research, allowed us to correlate the meanings of certain lexical items using dictionary interpretations. Thus, the study of lexical meaning by lexical definitions and lexicographic presentation allowed to establish the nature and types of word structure belonging

to different semasiological subclasses and semantic categories, in other words, to consider the lexical meaning of the word in terms of its epidigmatics – semantic origin and synchronous identity of the word.

The method of linguistic description of linguistic facts was used to inventory and systematize different approaches to distinguishing between broad and narrow understanding of connotation.

To compare different definitions of the concept of connotation, as well as to compare English and Ukrainian phrases, the method of comparison was used. In general, the comparison is the most common way of scientific knowledge. At the same time, it should be noted that comparison, as a method of cognition, has certain requirements: only such objects and phenomena should be compared, between which there may be a certain objective commonality; comparisons should be made on the most essential grounds. These rules were used to study the phenomenon of connotation in a comparative aspect on the materials of Ukrainian and English.

## Results and Discussion

Before considering the problematic aspects of the phenomenon of connotation, it is vital to define connotation.

Scholars studying the linguistic theory of connotation study different language levels: lexical, lexico-grammatical, word-forming, stylistic, communicative, the components of which are components of connotative meaning. Thus, linguists position the connotation differently:

- "stylistic meaning";
- "stylistic meaning";
- "emotional meaning";
- "pragmatic meaning";
- "semantic association";

- "expressive coloring";
- "lexical background";
- "emotional and stylistic semantic content", etc. (Hashibayazova, 2019)

These approaches to the term "connotation" confirm the complexity and ambiguity of the interpretation of the term "connotation".

The practice of distinguishing between broad and narrow understanding of connotation is well-established. In a broad sense, the connotation includes any component that complements the subject-conceptual (or denotative) and grammatical content of the language unit and gives it expressiveness based on data relevant to empirical, cultural, historical, and knowledge of the world». In a narrow sense, the connotation is seen as a component of the meaning of a token, which allows it to be used for secondary nomination and arises on associative representations and seems to replace the direct objective meaning.

There are also four components of connotation:

- 1) expressive and evaluative,
- 2) contextual,
- 3) historical and linguistic, and
- 4) historical and cultural.

But the most complete is the following definition of the phenomenon of "connotation" - (Latin *connotatio*, from *connoto* – have additional meaning; Latin *co* (n) – together, *notatio* – notation, remarks) – additional semantic, emotional, pragmatic, or stylistic nuances that accompany the conceptual and substantive content and arise from the interaction of basic meanings of words and sentences with background knowledge of speakers under the influence of context and speech situation, enable language unit to perform an expressive function, create a special color of speech and contribute to the achievement of appropriate communicative guidelines, provided they are used correctly.

**Table 2.**

*Types of connotations. Data provided by Ukrainets (2013).*

<b>Types of connotations</b>	
<p><b>Usual</b></p> <p>it is a general connotation of language units that are already established in the language, commonly understood, commonly used, and normative. Conventionally expressed adjectives with connotative expressions are commonly used, generally accepted lexical units fixed by dictionaries.</p>	<p><b>Occasional</b></p> <p>these are seldom used, not everyone understands mostly authorial innovations that arose based on subjective associations. Occasionally expressed adjectives with connotative expression, in turn, are differentiated into lexical (new in form and content) and semantic (new in content but unchanged in form).</p>

With such a division (Table 2), it is possible to single out the problem of the lack of a clear boundary between usual and occasional connotations, because at the time of its origin each connotation was occasional and, depending on its "success", became usual.

Researchers distinguish four elements in the structure of connotation: emotional (emotional), evaluative, expressive and stylistic, or functional-stylistic. However, the lack of unambiguous understanding of the role of the connotative component in the structure of word meaning is due to the diversity of views on the structure of connotation, and the problem of distinguishing components of connotation and its quantitative composition makes it difficult to classify emotional vocabulary.

Regarding the comparative aspect of the phenomenon of connotation on the material of English and Ukrainian languages, the following is established.

In the Ukrainian language, the connotation is studied based on the semantics of tokens, in particular, the psychophonosemantics of names; characteristics of quasi-terms in line with the ratio of individual and collective, the allocation of connotative types of vocabulary in advertising texts, in epistolary, as well as analysis of the connotative component of the internal form of the word in the literary text. Melodiousness as a result of the use of sounds that are pleasant to the ear (acoustic melodiousness) and easy to pronounce (articulatory melodiousness) is undoubtedly a meaningful linguistic and stylistic category for the system and structure of Ukrainian poetic language, as it to some extent adjusts the strategy and tactics of the modal perspective of phonetic units and plays an important role in determining the place of Ukrainian language in ethnocultural world. This confirms that acoustic and articulatory imagery of sound modeling in Ukrainian poetic language

is not thought of as a partial phenomenon, but as a functional ability of the national language, which undergoes an aesthetic transformation at all language levels, including phonological, and is a means of increasing the perlocutionary efficiency of sound implicatures of artistic and aesthetic discourse.

Regarding the connotation in English, by comparing the members of synonymous series (dictionary and affix) it is possible to establish the ethnocultural specific essence of the meaning of lexical units of the English language. Connotatively colored lexical units are divided into affixes of language and speech groups. The first includes affixes neologisms and terminology that can give the message a certain color and stylistic color. In English, we see a change in the stylistic affiliation of affixes. A striking example is the prefix cyber-; recorded as part of terminology, it later became part of science fiction, in the modern language it is used in colloquial speech and "virtual" slang. The second group includes affixes that express the emotional expression characteristic of colloquial vocabulary, so in dictionaries, it is accompanied by notes "ironic", "contemptuous", "contemptuous", "taboo", "conversational". the vast majority of English affixes are denotative and grammatical. The main criterion for selecting connotative affixes was to identify the impact on changing, supplementing, or strengthening the connotation of the root base. Unlike connotative affixes, denotative-grammatical ones do not evoke additional associations and do not convey the emotional and expressive mood of the speaker (Nahapetova, 2015).

It is meaningful to note that in both Ukrainian and English we can observe the use of the concept of "sphere of connotation" (Table 3), which includes areas in which language tools are combined with a certain type of ideas and feelings.

**Table 3.**  
*The spheres of connotation. Data provided by Zaichenko (2019).*

<b>Spheres of connotation</b>		
<b>expressive-evaluative</b>	<b>contextual</b>	<b>historical-cultural</b>
aimed at the inner world of man	aimed at language	aimed at external reality relative to language

The analysis of English and Ukrainian words shows that the connotative component of the word plays an important role in speech, in assessing the situation, for the selection of words that match the denotative component and differ

in stylistic color, evaluation. Ignorance of connotation leads to the use of the word in the wrong context.

If we consider connotation as an additional component of the meaning of a language unit, we can distinguish subjective nuances of evaluation, emotionality, expressiveness, functional and stylistic color, as well as nuances due to social, ideological, cultural, situational aspects of communication.

But we consider it most expedient to study the phenomenon of connotation when comparing English and Ukrainian languages through intralingual and external-lingual (Table 4) (related to extralinguistic factors, parameters of the communication situation, perception and evaluation of the subject, situation) system.

**Table 4.**

*The phenomenon of connotation through intralingual and external-lingual system. Data provided by Ukrainets (2013).*

<b>Intralingual</b>	<b>External-lingual</b>
<p>associated with the perception of the word in connection with the development of the language system</p> <p>The components are divided into diachronic, which allows tracing the changes that have taken place over time, and synchronous (motivational), which complement the objective meaning of the language unit associative-image representation of the denoted reality based on the internal form of the name.</p>	<p>related to extralinguistic factors, parameters of the communication situation, perception and evaluation by the speaker of the subject, the situation</p> <p>The components of connotation characterize the conditions of communication, the speaker as such, the social relations of the participants in communication, etc. Within this group of components of connotations, the researcher identifies four subgroups, which, in turn, consist of certain elements.</p>

Thus, there are problematic issues of definition and interpretation of the phenomenon of connotation, which can be solved by applying an integrated approach and establishing a cause-and-effect relationship of this phenomenon.

In the analysis of types of connotations there is a problem of lack of a clear boundary between usual and occasional connotations, because at the time of origin each connotation was occasional and depending on its "success" became usual.

### Conclusions

Connotation is additional semantic, emotional, pragmatic, or stylistic nuances of usual or occasional character, which are included in the semantics of the word, expressing the emotional and evaluative attitude to reality.

With regard to further scientific research, the prospect of studying the phenomenon of connotation is seen in elucidating the peculiarities of the implementation of this category in the semantics of the adjective.

The scientific literature presents a broad and narrow understanding of connotation, as well as a synthesis of both approaches, which shows the versatility and diversity of the concept itself. The most common is the distinction between two types of connotation – usual and occasional. Connotation is used as an additional component of the meaning of the linguistic unit of phonetic, morphological, lexical, and syntactic level, which implicitly laid the emotional, expressive, and evaluative attitude of the subject to the described object of real or unreal reality, and its stylistic color.

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In both Ukrainian and English, one can observe the use of the concept of "sphere of connotation", which includes areas in which language tools are combined with a certain type of ideas and feelings.



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## Multifaceted approach to legislative regulation for using dna analysis in criminal proceedings of Ukraine

### КОМПЛЕКСНЫЙ ПОДХОД К ЗАКОНОДАТЕЛЬНОМУ РЕГУЛИРОВАНИЮ ИСПОЛЬЗОВАНИЯ ДНК-АНАЛИЗА В УГОЛОВНОМ ПРОЦЕССЕ УКРАИНЫ

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#### Abstract

The purpose of this article is to develop propositions for improving legal regulation of the use of DNA analysis in criminal proceedings of Ukraine. System-structural, comparative-legal and formal-logical methods of research, analysis of theory and practice are used. The article proposes to apply an integrated approach to the development and introduction of the field-oriented legislation after public discussion on the problems of protecting genetic data in law enforcement practice based on European standards. It is already necessary to separate the concepts of biological material and genomic information in the current legislation of Ukraine, to establish the terms of their storage and the rules for destruction after they are no longer needed. The legislation should also differentiate the methods of obtaining biological samples with defining the priorities for obtaining samples for DNA analysis by the way of buccal scraping (genal swabbing). We should provide separate rules for the permissible scope of molecular

#### Аннотация

Целью данной статьи является разработка предложений по усовершенствованию правового регулирования вопросов использования ДНК-анализа в уголовном процессе Украины. Используются системно-структурный, сравнительно-правовой и формально-логические методы исследования, анализ теории и практики. В статье предложено применить комплексный подход к разработке и внедрению профильного законодательства после общественной дискуссии по проблемам защиты генетических данных в правоохранительной практике на основе европейских стандартов. В действующем законодательстве Украины рекомендовано разделить понятия биологического материала и genomic информации, установить сроки их хранения и правила уничтожения после того, как в них отпала необходимость. Также нужно дифференцировать в законе способы получения биологических образцов с

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genetic testing for suspects (convicts) and other persons. It is also necessary to limit the possibility of unofficial obtaining DNA profiles and to establish procedural rules for mass genetic testing to detect especially grave crimes.

**Keywords:** forensic DNA analysis, criminal proceedings of Ukraine, legal bases of forensic DNA analysis, molecular genetic examination in criminal proceedings, use of DNA to investigate crimes.

## Introduction

Forensic DNA analysis has proven itself to be a powerful tool in combating crime. Effective tools and methods have been developed and successfully implemented for more than thirty years of its history, which allow identifying a person by biological traces, establishing biological paternity and biological kinship by DNA, as well as solving a number of important tasks that are important while investigating crimes and during judicial proving. At the same time, DNA analysis methods are most effectively used in terms of the state DNA database functioning, which requires proper legal regulation. Since versatile personal information is encoded in DNA, its study without legal restrictions can lead to a significant violation of human rights. Therefore, the protection of human genomic information is an important aspect in any democratic state.

Most European states are democratic, that is the reason why the issues of such legal regulation are solved in accordance with generally accepted standards for guaranteeing human rights. However, not every country has adopted separate legislation on biodata protection and on the use of DNA analysis while investigating crimes. As analysts rightly noted, the interpretation of vague and more general laws in those countries having no such legislation is subject matter of concert parties, law enforcement agencies and, finally, judicial power (Bárd, 2010). Ukraine belongs to this category of countries. Special laws aimed at establishing clear and understandable rules for obtaining and using genomic information by law enforcement agencies in order to combat crime have not been adopted yet. That is the reason for

определением приоритетности получения образцов для ДНК-анализа путем буккального соскоба (щечного мазка). Следует предусмотреть отдельные правила по поводу допустимого объема молекулярно-генетического исследования для подозреваемых (осужденных) и других лиц. Необходимо ограничить возможности негласного получения ДНК-профилей и установить процессуальные правила массового генетического тестирования для раскрытия особо тяжких преступлений.

**Ключевые слова:** судебный ДНК-анализ, уголовный процесс Украины, правовые основы судебного ДНК-анализа, молекулярно-генетическая экспертиза в уголовном процессе, использование ДНК для расследования преступлений.

significant problems within investigative and judicial practice (Stepaniuk et al., 2019). We believe that the situation should be changed, and the need to develop a set of legal norms to properly regulate the use of DNA analysis in law enforcement activities in Ukraine is badly needed.

## Literature Review

Despite the existing problems with legal regulation of the use of DNA analysis in criminal proceedings, Ukrainian scholars have just recently begun to study the possibilities of its improvement. At the same time, the particular relevance of this issue has been emphasized and it has been offered to legislatively specify the entities authorized to take biological samples and the persons, who can provide such samples, as well as the procedure of forced sampling (Drozd et al., 2019). Some researchers believe it useful to determine the types of biological samples, to establish a clear procedure for recording a person's refusal to provide samples voluntarily, to regulate the right of a person to appeal against forced sampling and provide an opportunity to oblige the prosecution to destroy the collected samples by a court decision (Leiba, 2021, p. 312). It has been also suggested to more clearly regulate the types and procedural methods of taking samples from corpses (Denysovskiy, Bumba, 2021, p. 159). The legislator is pleading with establishing the admissibility criteria for coercion while collecting biological samples by introducing alterations to the Criminal Procedural Code of Ukraine, taking into account the approaches developed in the practice of the

European Court of Human Rights (Gorelkina, 2021, pp. 136-138). Besides, several suggestions have been made to supplement the Criminal Procedural Code of Ukraine in regard to the need to develop a separate Section regulating the collection of DNA samples, the use and storage of DNA profiles (Horpyniuk, 2019, pp. 248-249).

The above suggestions are generally useful, but not always precise and require more thorough analysis, specifications, updates and clarifications. When developing recommendations, it is important to take into account legal principles aimed at balancing state intervention into human rights by DNA analysis method in order to combat crime (Simoncelli & Krinsky, 2007), European standards for obtaining biological samples in the context of the criteria applied by the European Court of Human Rights (Kaplina, Shylo, & Titko, 2019), international legal and ethical standards for maintaining DNA databases (Wallace et al., 2014) and the approaches of other European countries in regard to legal regulation of the use of DNA analysis while investigating crimes.

### Methodology

While conducting this research, the authors have applied generally accepted methods of scientific cognition in relation to the set purposes, in particular, system and structural, comparative and legal, analysis, synthesis, analogy and others. The authors have studied the current situation of legal regulation of using forensic DNA analysis in the practice of Ukrainian law enforcement agencies. The bills available in Ukraine and the suggestions of scholars to improve legislation in this area have been analyzed. The authors have taken into account the European standards for filling DNA databases and approaches to legal regulation of these issues in the German criminal proceedings in order to develop recommendations on the need to amend and supplement the criminal procedural legislation of Ukraine in regard to the use of DNA analysis while investigating crimes.

### Results and discussion

After it became clear that DNA analysis is a powerful tool for identifying criminals, relevant technologies have been introduced into law enforcement practice in many countries around the world. At the same time, an important condition for increasing the effectiveness of this tool was the development and adoption of the field-oriented legislation in each state. However,

only technical means and methods of DNA analysis were introduced in Ukraine all the while. No legislative steps have been taken so far. As a result, there are actually no special legal norms that regulate the possibilities of using DNA analysis within investigative and judicial practice in the state.

The only exception at the level of the law is Part 2 of the Art. 26 of the Law of Ukraine "On the National Police", which states that the police force ensures the collection of biometric data (including DNA samples) to fill the databases of the Unified Information System of the Ministry of Internal Affairs of Ukraine about persons detained on suspicion of committing offenses. However, the practical application of this norm is virtually impossible due to the lack of grounds and procedures for the collection of biometric data by the police. In this regard, it has been concluded that the above norm of the Law contains a provision that does not correspond to reality (Dubonos, 2021, p. 49). DNA samples are not obtained from detainees in routine police activities in Ukraine. The only exceptions are cases of taking samples for forensic examination in criminal cases in the manner prescribed by the Criminal Procedural Code of Ukraine. But there are significant problems even in these cases, since the procedural rules are common to all types of examination and the law does not separately take into account the specifics of DNA analysis.

Sampling for examination according to criminal procedural legislation of Ukraine is carried out in accordance with the general procedure established for all types of biological samples (Part 2 of the Art. 245, the Art. 241 of the Criminal Procedural Code of Ukraine). This procedure looks like this. Samples can be taken from any suspect, witness or victim, if there is such a need for carrying out the examination. Prosecutor's authorization is sufficient for the collection of biological samples on a voluntary basis. If a person does not agree to provide his / her samples voluntarily, then the law provides the possibility of their forced removal with the permission of the investigating judge or court. The procedure for consideration of petitions for the compulsory selection of biological samples by the court is the same as for temporary access to objects and documents. This procedure is not adapted to biological samples, resulting in a controversial case law, where courts permit or prohibit forced sampling in similar situations.

In addition to experimental samples from persons present, law enforcement officers practice

obtaining so-called free samples, that is, biological traces of a missing person from things that he / she reliably used (toothbrushes, razors, etc.).

Samples from corpses are obtained either during the forensic medical examination of the corpse or during the exhumation of the corpse, which is carried out by the prosecutor's authorization. Judicial permission is not required in this case.

There is also non-public sampling for comparative research (the Art. 274 of the Criminal Procedural Code of Ukraine). Non-public samples are not used as evidence and the law obliges their second open obtaining after there is no need to comply with the regime of covert investigation. Sometimes law enforcement officers resort to the practice of non-public obtaining DNA samples (for example, from a discarded cigarette butt) to check for a match with the DNA profile of an alleged criminal. Such actions are carried out only with the permission of a judge. However, the law does not provide permissible purposes for the analysis and use of genomic information obtained in such a way. Given the importance of having adequate legal protection against covert genetic testing (Strand, 2016), we believe that it is a significant gap that needs to be addressed when reforming legislation. At a minimum, it is necessary to supplement the law with a norm about the use of the obtained DNA profile solely for comparison with the profile from the crime scene and about further destruction of both biomaterial and genetic information.

Ukrainian scholars note the existence of significant problems on the issue of legal regulation of the possibilities to use DNA analysis in criminal proceedings, but among specific propositions we could only find a statement of the need to establish a list of crimes, when it is possible to form a DNA profile of a suspect, and definition of the storage terms for DNA profiles (Horpyniuk, 2019, pp. 248-249). These issues are important, but they concern not so much the Criminal Procedural Code of Ukraine, but the field-oriented law on the national DNA database, which is not existed in Ukraine.

Due to the lack of the field-oriented legislation, DNA analysis technologies are not currently used very effectively in Ukraine. And we should remember the fact that forensic molecular genetic examinations have been carried out since 1992 in the country, a network of forensic genetics laboratories has been deployed, and

there is the necessary equipment and personnel. There is a situation, where the DNA database has been technically created in the expert institutions of the system of the Ministry of Internal Affairs of Ukraine, but it is not properly filled due to the lack of a legal basis. Some issues of maintaining such a database are regulated by departmental orders of the Ministry of Internal Affairs of Ukraine. In fact, only DNA profiles of convicted persons with their voluntary consent, profiles from traces seized from the crime scene, unidentified corpses, and more recently law enforcement officers who participate in the crime scene search (with their written consent) get into the database.

A draft law "On State Registration of Human Genomic Information" was developed in 2020, which was submitted to Parliament, but its consideration is still ongoing and the perspectives are not clear yet. It seems that even if this bill is adopted, it will not solve all the main problems. It is important to note that an attempt to establish mandatory sampling not only in accordance with the Criminal Procedural Code of Ukraine, but also during routine procedures in prisons by convicted persons, as it is suggested in the draft law, cannot be successful due to the specifics of the current legislation. There is no need for such an approach. Analysts noted that many countries require a certain level of supervision before collecting DNA samples, ranging from presenting a person with suspicion and ending with judicial permission. Such a procedure exists in most European countries, most US states, and throughout Latin America (Wallace et al., 2014). The rule of preliminary judicial control has been already clearly established in criminal proceedings of Ukraine, if there is a need of forced collection of biomaterial from a living person. We believe that such control cannot be weakened in case of DNA.

The issues of obtaining and using DNA information by law enforcement agencies in most European countries unlike Ukraine are sufficiently regulated in details. Certain standards have been developed both on the admissibility of interference with private life while obtaining DNA samples within criminal proceedings and on the use of automated DNA databases for the purpose of detecting and investigating crimes.

Ukraine is on the integration path into the European Union and is making attempts to accordingly harmonize domestic legislation. Therefore, the legal grounds for DNA analysis should be developed on the basis of European

approaches. In this regard, it is appropriate to mention the experience of other European countries.

For example, the DNA reform in Norway adopted in 2008 has been identified as one of the main reforms in the criminal law area. At the same time, the use of DNA to detect repetitive crimes was actually not effective before the reform of the legislation (AARli, 2013, pp. 64-67). One can also expect a significant increase in the effectiveness of DNA analysis methods for detecting crimes in Ukraine, if criminal procedural legislation is reformed. It is not enough to adopt one law on DNA databases. The first priority is to introduce a number of legislative norms about DNA based on an integrated approach.

In general, we support the idea about a more clear legislative regulation of the procedural manner for handling biological samples within criminal proceedings, taking into account international human rights standards and modern needs in the practice of combating crime (Koropetska & Smushak, 2020, p. 265). But Ukrainian scholars, in our opinion, do not fully analyze this issue. Attention is focused only on the type of samples (voice, fingerprints, saliva, blood, etc.) and some formal procedures (Drozd et al., 2019; Leiba, 2021; Denysovskyi & Bumba, 2021). However, taking into account modern approaches to determining the type of samples, it is necessary to pay particular attention to the special significance of DNA not only as an object for identifying a person, but also as a carrier of encrypted information about a person (about biogeographic origin, health condition, etc.). Undoubtedly, DNA has properties that significantly distinguish it from other samples in terms of the ethical and social problems, which it causes (Kimmelman, 2000). Therefore, it is necessary to take into account the potential information content of biological samples and further perspectives for their analysis and use in criminal proceedings. We must clearly understand that biological material taken from a person is a source of DNA. As a result of its expert examination within a criminal case and in some other cases, personal information about a human being appears in a forensic database. This information is also subject to proper protection by the state from unauthorized access.

It should be also noted that material evidence with traces of biological origin is seized and examined in criminal cases along with biological samples taken from a certain subject. And these are not only the traces of the perpetrator, but also

the biological material of the victim, witnesses, and sometimes outsiders, whose DNA was at the crime scene. It is another argument in favor of the thesis that it is not enough to simply provide a more complete procedure for obtaining biological samples in the Criminal Procedural Code of Ukraine. It should be separately taken into account that biological material is a source of DNA, and DNA, in turn, is a carrier of human genetic data, the handling of which is also subject to proper legal regulation. It is in line with the principles of the International Declaration on Human Genetic Data (Adopted by the Resolution of the UNESCO General Conference according to the report of the Commission III at the 20th plenary meeting on October 16, 2003), which clearly separates the concepts of human genetic data, human proteomic data and biological samples. It also corresponds to the practice of the European Court of Human Rights, where the gradation of human biological samples according to the degree of interference with privacy is accepted for: cellular material, DNA profile and fingerprints (Kaplina, Shylo O.H., & Titko, 2019, p. 1579).

It has been noted that the primary consideration while developing the legal framework for forensic DNA analysis should be the preservation of only profiles created as a result of molecular genetic analysis, but not the storage of cell samples (Atalay, 2019, p. 180). It is especially important for the Criminal Procedural Code of Ukraine, because it does not currently reflect the concept of DNA profiles at all, there are no rules for storing the obtained biological samples, but there are only general rules for storing physical evidence.

Thus, it is necessary to distinguish between the source of human DNA (biological material) and genetic information as a result of its examination (DNA profile) when regulating individual legal procedures. The Criminal Procedural Code of Ukraine must contain separate norms on the protection of genetic information. At the same time, it is necessary to take into account the experience of European states in determining the scope of the use of DNA analysis methods permitted by law in criminal proceedings.

For example, the German Criminal Procedural Code, in contrast to Ukrainian, contains both the norms regulating the rules for the physical examination of a person and obtaining his / her biological samples and clear rules for their use (§ 81e – 81h). It seems important for us that these norms regulate: 1) the permissible goals of molecular genetic examination (the scope of

obtained information both from samples and from traces); 2) procedural grounds for its conduction; 3) necessary measures to protect personal data; the range of persons whose DNA profiles can be placed in the DNA database; 4) rules for conducting mass gene testing for the detection of grave crimes against life, health, sexual freedom of a person. Law enforcement agencies in Germany due to this method of legal regulation have an accurate idea of the permissible limits for using the capabilities of DNA analysis in criminal procedural practice.

There is no such understanding in Ukraine yet. Therefore, issues both about who and how to take samples for DNA analysis and what information is permissible to obtain by DNA analysis methods, how to protect it from unauthorized access, what are the cases and for how long to store it are very relevant. Obviously, the solution of these issues requires both scientific analysis and public discussion to determine the limits of state intervention into personal and family life of citizens in order to combat crime.

Having analyzed the suggested draft law in Ukraine "On State Registration of Human Genomic Information", it can be stated that the issues in regard to whose DNA profiles will be subject to mandatory registration and the terms of storage of genomic information are the only currently clear matters. The DNA profiles of suspects and those convicted of crimes against life, health, will, honor, dignity, sexual freedom and sexual inviolability of the person, DNA profiles of traces of unknown persons from the crime scene, unidentified corpses and missing persons will be mandatory placed in the database. This approach seems reasonable to us, since it generally corresponds to European practices. Another positive feature of the draft law is the separation of biological material and genomic information in matters of their storage and usage. In addition, it is important to note that the suggested rules comply with the European standard on the destruction of the DNA profiles of persons in respect of whom criminal proceedings were closed, they were released from criminal liability or excused.

Ways to resolve other issues are either non-existent or appear to be highly controversial.

Thus, there is no understanding about the general procedure for obtaining biological material for the DNA database. The draft law offers to do this in some cases according to the rules of criminal procedural law, and in others according to the routine procedures of the penitentiary or

probation authorities, as well as medical institutions. As we have already noted above, the second method in Ukraine does not correspond to generally accepted practice. The current approach of exclusively criminal procedural law should be maintained to ensure the appropriate legal procedure and judicial control in case of forced sampling. In turn, it is necessary to improve the norms of the Criminal Procedural Code of Ukraine and more clearly establish the procedural grounds and rules for the selection, use and storage of biological material.

It is important to note that the criminal proceedings of Ukraine do not take into account the differences in the methods of intervention in the human body for the purpose of voluntary and forced selection of biological material. Such a separation in the context of samples for DNA analysis from a living person would facilitate to solve the problem of legal regulation.

It is known that it is customary to divide procedures into intimate and non-intimate in common law countries. At the same time, intimate samples can be taken only with the person's consent and only by a health care professional. Non-intimate samples can be taken without the person's consent and without the involvement of a health care professional (Kaye, 2006, pp. 18-19). For example, reasonable force is allowed in the US to obtain a buccal swab, which is considered minimal intrusive intervention (Roy, 2021, pp. 877-878). Therefore, we believe that while improving the criminal procedural legislation of Ukraine, it is necessary to take into account that obtaining a sample for DNA analysis is most often possible by buccal scraping (swabbing from the inner surface of the cheek), which is favorably different from other methods of obtaining biological samples. It does not require significant intervention in the human body, does not cause physical pain. No medical instruments needed in this case. Swabbing can be performed by anyone, but not just by a physician. Therefore, buccal scraping should be explicitly indicated in the Criminal Procedural Code of Ukraine as a priority method for obtaining samples for DNA analysis, which can be performed without the participation of a physician. In turn, invasive methods of obtaining biological samples can be used only if there are good reasons, only in a medical institution and only by health care professionals. In all cases there must be judicial authorization for forced collection of biological samples.

Thus, it is necessary to supplement the Art. 245 of the Criminal Procedural Code of Ukraine on obtaining samples for examination with a new Part, where we should determine that obtaining a sample for DNA analysis is carried out by the method of buccal scraping (swabbing from the inner surface of the cheek). The choice of another method should be additionally substantiated, should be used only by a physician and carried out in a medical institution.

One of the most important issues requiring legal regulation in Ukraine is the scope and limits of possible DNA examination within criminal proceedings. It is due to the fact that DNA analysis technologies are rapidly developing. New methods are being introduced that mostly intrude into personal and family life. It has been long known that this situation requires thorough development of appropriate legal principles (Simoncelli, & Krimsky, 2007). But such principles have not been discussed in Ukraine yet. Because, on the one hand, there is no understanding of the level of development of modern practices of DNA analysis among lawyers and accordingly there are no amendments to laws, and on the other hand, these new directions do not find real practical application in the country due to the lack of legal regulation.

We believe that there is a need for a broad public discussion in Ukraine on the admissibility in general and the possible limits for using various DNA analysis techniques that can facilitate in detecting grave crimes. To our opinion there are currently two main problems in this area, which must be urgently resolved in order to increase the effectiveness of this area.

The first problem is to increase the efficiency of searching for an unknown criminal on the basis of DNA traces left by that criminal, and the second problem is to determine the permissible boundaries for studying genomic information.

Regarding the first problem, the legislative regulation of the practice of mass DNA testing, which is used to detect especially grave crimes in case if there is no match between the DNA profile of an unknown criminal and the DNA database, can be very useful for Ukraine. This tool is essential, since there are almost always no matches in Ukraine due to a poor DNA database. Law enforcement agencies have technical means, but there are no legislative norms that would establish appropriate procedures. Nevertheless, investigators still carry out mass testing for DNA profile to detect especially grave crimes. But they

accomplish such testing by applying the general norms of the Criminal Procedural Code of Ukraine on the selection of biological samples and the involvement of experts. As a result, such actions take a very long time, which reduces their effectiveness. They also do not fully comply with the requirements for the protection of human genomic information, since its access is not regulated at all in this context. Nowadays, molecular genetics laboratories in some cases of unsolved murders receive thousands of samples for DNA analysis from various individuals, often random, which the police officers consider it necessary to verify. Such a situation, in our opinion, is unacceptable. The lack of a clear procedure for conducting mass DNA testing has led to the fact that samples from participants in such testing are taken without judicial control. There are no legislative requirements on the inadmissibility of using the obtained genomic information for purposes not related to the crime under investigation, on the need for its immediate destruction after a comparative analysis. All this, on the one hand, can lead to a significant violation of human rights to the inviolability of personal and family life, and on the other hand, significantly increases the terms for conducting inspections and material costs.

In our opinion, the Criminal Procedural Code of Ukraine should be supplemented with a separate Article "Mass DNA testing". It must take into account the minimum requirements known under German law, namely: 1) conducting such tests only to detect especially grave crimes and only with the permission of the investigating judge; 2) obtaining biological samples only with a written voluntary consent and only from persons who have characteristics of the alleged suspect; 3) using the obtained DNA profile only for comparison with the DNA profile of the trace of the alleged suspect; 4) immediate destruction of the obtained DNA profiles after they are no longer needed for the investigation; 5) a ban on placing the obtained DNA profiles in the DNA database and their use in future investigations.

In regard to the second problem, we note that currently STR profiling methods are most widely used for standard sets of autosomal STR-locus in the laboratories of forensic molecular genetic examination in Ukraine for criminal investigations, comparing DNA profiles from crime traces with DNA profiles of obtained samples from living individuals. and unidentified corpses. At the same time, "junk DNA" is being studied and interference with personal information in this case is limited only to the creation of a DNA profile that allows us to



identify a person without receiving information about his health, origin, appearance, etc.

However, other methods of DNA analysis are also used in the world, which can much more intrude into private life. For example, forensic DNA phenotyping methods have been already used in some countries (Schneider, Prainsack, & Kayser, 2019). Various methods of searching for relatives in DNA databases have been introduced (Ge, & Budowle, 2021), including the latest methods of investigative genetic genealogy (Greytak, Moore, & Armentrout, 2019). It is noted that new NGS-based DNA analysis platforms will become indispensable in forensic practice in the future (Haddrill, 2021, p. 383). In case of the development of new legal considerations and approaches to privacy, they may make the “junk DNA” as the history (Scudder et al., 2018). Such perspectives additionally reinforce the need for legislation to clearly define the scope of permissible human DNA analysis for the purposes of criminal investigation.

Taking into account the above, we note that it is necessary to introduce a separate Article “Molecular genetic examination” into the Criminal Procedural Code of Ukraine, which should consider the following aspects: 1) to establish a larger permissible scope of molecular genetic examination for samples seized from suspects and from traces of unknown persons and corpses, compared with samples from the persons being under investigation (witnesses, victims and others); 2) to establish a rule for the mandatory destruction of personal information obtained as a result of DNA analysis, as soon as it is no longer necessary for the investigation of a particular crime, except for those DNA profiles that are to be placed in the national DNA database; 3) to provide the possibility of conducting, besides forensic examination, verifications solely for the purpose of comparing the DNA profiles of the persons being under investigation with the DNA profile from the crime traces; 4) to provide special rules for the protection of personal data in order to prevent the divulgation of individual genetic information obtained as a result of molecular genetic examination.

These priority measures, in our opinion, will lead to the streamlining of criminal proceedings related to the use of DNA analysis while investigating crimes.

## Conclusions

1. There is currently no separate legislative regulation of using DNA analysis while detecting and investigating crimes in Ukraine. Therefore, the relevant technologies are used only in the general procedure of involving experts within criminal proceedings. As a result, the national DNA profile database is not formed, and many issues related to obtaining biological samples from living individuals and examining traces of DNA from crime scenes are controversially solved at the discretion of law enforcement and the judicial agencies. A separate bill on state registration of human genomic information is being considered, but there are no specific propositions to improve the Criminal Procedural Code of Ukraine. An option to solve this problem is the need for comprehensive development of the field-oriented legislation and its implementation after a broad public debate on the problems of protecting genetic data in law enforcement practice on the basis of European standards in this area.
2. We support the decisions offered in the draft law “On State Registration of Human Genomic Information” concerning the range of persons whose DNA profiles need to be placed in the DNA database, as well as concerning the conditions and terms of their storage. However, we believe it necessary to supplement the Criminal Procedural Code of Ukraine together with the adoption of the Law on the national DNA database. At the same time, it is necessary to distinguish the concepts of biological material and genomic information, to establish the terms of their storage and the rules of destruction after they are no longer needed in connection with the investigation and trial of a criminal case. The law should also differentiate the methods of obtaining biological samples with the determining the priority of obtaining samples for DNA analysis by the method of buccal scraping (genal swabbing). We should establish certain rules regarding the possible scope of molecular genetic examination for suspects (convicts) and other persons. Special rules should be developed to protect personal data in order to prevent the divulgation of individual genetic information obtained as a result of molecular genetic examination. It is also necessary to limit the possibility of covert obtaining DNA profiles only in exceptional cases, under judicial control and with the immediate destruction after verification for coincidence with the trace from the crime

scene. Besides, it is necessary to enshrine procedural rules for mass genetic testing to detect especially grave crimes.

The perspective areas for further research in the field of legal regulation of the use of forensic DNA analysis in Ukraine is the development of recommendations on the admissibility and scope of new techniques and methods, in particular techniques of forensic phenotyping and search for relatives in DNA databases.

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## Multi-indicator system for evaluating the effectiveness of management of enterprise development financing

### Полііндикаторна система оцінки ефективності управління фінансуванням розвитку підприємств

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#### Abstract

The article establishes to assess the effectiveness of financial security management is necessary to take into account the relationship between indicators of enterprise development and indicators of efficiency of financial security management in dynamics and adjust the assessment for positive or negative external influences. Insufficient research has focused on assessing the effectiveness of financial management of development, especially on the formation of an appropriate system that can guide practitioners. Therefore, the purpose of the article is to develop a multi-indicator system for assessing the effectiveness of management of financing the development of enterprises. To solve this problem, the study was aimed at forming comprehensive recommendations that provide appropriate steps and actions. The manual is developed using the conceptual research method, the method covers three phases: collection of steps and measures from existing recommendations on the evaluation system (1), classification of indicators and

#### Анотація

У статті встановлено, що для оцінювання ефективності управління фінансовим забезпеченням необхідно враховувати зв'язок між індикаторами розвитку підприємства та індикаторами ефективності управління його фінансовим забезпеченням у динаміці та здійснювати корегування оцінки на позитивні або негативні зовнішні впливи. Недостатньо досліджень зосереджено на аспекті оцінювання ефективності управління фінансовим забезпеченням розвитку, особливо на формуванні відповідної системи, яка може направляти практиків. Тому мета статті розробка полііндикаторної системи оцінки ефективності управління фінансуванням розвитку підприємств. Для вирішення цього завдання, дослідження було спрямоване на формування вичерпних рекомендацій, які передбачають відповідні кроки та дії. Керівництво розроблено з використанням методу концептуального дослідження, метод охоплює три фази: збір кроків і заходів з існуючих рекомендацій

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definition of system structure (2), definition of criteria for assessing financial compliance systems for evaluating the effectiveness of financial security management (3). The proposed recommendations allow to analyze the dynamics of both the global development of the enterprise and the management of financial security necessary for development, which allows to develop measures to improve the management of financial security of the enterprise. According to the results of the research, the developed multi-indicator system for assessing the effectiveness of management of financing the development of agricultural machinery of PJSC "Harvesters" was tested.

**Keywords:** financing, development, enterprise, management, system, estimation, indicators.

## Introduction

The most important step in managing the financial support of enterprise development is to assess its effectiveness, which provides a basis for determining whether the management was effective enough to achieve the goals or whether the management system needs improvement. A feature of assessing the effectiveness of management of financing the development of enterprises is the dependence of the evaluation process and criteria on the dynamics of the external environment. The process of enterprise development itself is carried out under the influence of the external environment, which can be favorable and unfavorable. Therefore, the effectiveness of enterprise development in general and its financial support in particular depends on how effectively the opportunities were used and the negative effects were overcome, and not just as an absolute or relative increase in any one indicator. Therefore, a multi-indicator system for assessing the effectiveness of management of financing the development of enterprises is needed. To solve this problem, sets of key indicators of enterprise development and financial support necessary for this development have been identified, thanks to which an analysis has been made in the dynamics of both global enterprise development and management of financial support necessary for development.

In the study of the dynamics of the external environment that has an impact on the development of the enterprise, the influential factors are characterized, which are characterized by changes in time and weight characteristics of the impact on each direction of enterprise development.

In this paper it is proposed to evaluate the dynamics of business development through appropriate development indicators.

The study aims to develop comprehensive recommendations for steps and actions to develop a multi-indicator system based on literature to find and integrate different concepts, including performance aspects, financial evaluation, organizational decision levels and strategic development management (Theoretical Framework or Literature Review). The section "Methodology" offers phases of development of a multi-indicator system for assessing the effectiveness of development finance management: classification of indicators and determining the structure of the system, determining criteria for assessing the compliance of financial security with enterprise development and criteria for multi-indicator system for assessing the effectiveness of financial management. The section "Results and Discussion" presents the results of testing

щодо системи оцінки (1), класифікація групи індикаторів та визначення структури системи (2), визначення критеріїв оцінки відповідності фінансового забезпечення завданням розвитку підприємства та критеріїв полііндикаторної системи оцінювання ефективності управління фінансовим забезпеченням (3). Запропоновані рекомендації дозволяють аналізувати в динаміці як глобальний розвиток підприємства, так і управління необхідним для розвитку фінансовим забезпеченням, що дає змогу розробити заходи щодо покращення системи управління фінансовим забезпеченням підприємства. За результатами дослідження проведено апробацію розробленої полііндикаторної системи оцінки ефективності управління фінансуванням розвитку сільськогосподарської техніки ПрАТ «Харвестери».

**Ключові слова:** фінансування, розвиток, підприємство, управління, система, оцінка, індикатори.

the developed multi-indicator system for evaluating the effectiveness of development finance management at PJSC "Harvesters".

### **Theoretical Framework or Literature Review**

Difficulty in accessing finance is one of the critical factors constraining the development of enterprises. With the development of financialization, manufacturing enterprises allocate greater funds to the financial field, which may significantly affect their level of R & D investment (Hou et al, 2021).

The study Amare Abawa Esubalew and A. Raghurama (2020) revealed the significant mediating effect of behavioral finance on the relationship between bank finance and performance of enterprise.

Naoyuki Yoshino and Farhad Taghizadeh-Hesary (2019) believe that one efficient way to promote SME financing is through credit guarantee schemes, by which the government guarantees a portion (ratio) of a loan provided by a bank to a SME. Due to asymmetry of information between banks and SMEs, total loans to SMEs are smaller than the desired level of SME loan demand. Therefore, providing credit guarantees reduces information asymmetry between SME and banks, which increases the amount of loans to SMEs.

Paper Jinet et al., (2022) found that the leverage effect occurs in the loans of non-high-tech and nonentrepreneurial enterprises, and the credit constraint effect is dominant in the loans of high-tech enterprises and entrepreneurial enterprises.

Study Teng-Shihet al, (2018) examines the impact of external financing activities on earnings management decisions and further explores the role of enterprise risk management (ERM) as a potential moderating factor in this association.

Modern realities of risk management in bank finance are considered in the paper Tarasova H., et al, (2018).

In Limei Wang and Yun Wang (2022), all sides of supply chain financing optimize the supply chain risk management system, while reducing business costs and improving corporate efficiency, which significantly reduces the risks of all parties in supply chain financing.

A separate area of assessing the effectiveness of enterprise development is to assess the effectiveness of all areas using a balanced scorecard.

Dokienko L. (2015) proposes to evaluate the effectiveness of financial management of the financial service of the enterprise using a balanced scorecard, but simultaneously with the evaluation of cost-oriented management from the standpoint of the owner. It is proposed to use the profitability of innovations, assets and equity, profit before mandatory payments, net cash flow and cash flow return on invested capital as the main indicators. In general, the approach proposed by (Dokienko, 2015) based on finding a compromise between assessing the efficiency of the enterprise through market value added and economic value added, as well as taking into account cash flows. Among the shortcomings should be noted the lack of attention paid to assessing the effectiveness of financial management in the context of enterprise development.

Boichenko K. and etc. (2021), established that the development of enterprises depends to a large extent on their financial support as a whole. The change in the development level of companies depends substantially on the change in the integrated indicator of their financial provision. In particular, enterprises' development is significantly affected by the capital structure and the predominance of equity in it, as well as current financing.

Thus, Demidova I. (2011) proposes to calculate the integrated indicator which, in addition to innovation, marketing, technology and personnel also takes into account the impact on the efficiency of financial and resource factors. Moreover, there are factors of the internal and external environment of the enterprise and the place of formation of information on these factors that affect the development of the machine-building enterprise. At the same time, the universality of this approach causes its shortcomings, because most aspects of financial security management are not taken into account.

In the work of Popkova, Elena G. and Bruno S. Sergi (2021), specific factors of financing sustainable development in developing economies are identified, and based on this, financial risks are identified.

Izabela Jonek-Kowalska (2019) proposes to use a four-stage system of performance measurement, which includes: accounting for financial results in the form of profit or loss, percentage changes in net financial result for the year, return on total assets. and return on equity.

Barantseva S. and Bazyuk V. (2014) considered the assessment of the effectiveness of financial resources management as part of the overall assessment of the effectiveness of enterprise development, which includes in addition to financial, also commercial, information and personnel processes. To assess the effectiveness of financial processes, it was proposed to use such indicators as return on equity, revenue growth rate, liquidity ratio, return on investment capital. Positive changes in these indicators are considered development achievements, and negative changes indicate a dangerous situation. This approach ignores the peculiarities of the external environment and the need to assess the effectiveness of development in the context of changes that create positive opportunities for development or, conversely, overcoming which requires additional efforts.

The research of Tkachenko, VA and Pestovska, ZS (2014) deserves attention, who proposed to consider the financial needs of the machine-building enterprise with their division into three subsystems: the subsystem of receivables management, the subsystem of accounts payable management and the subsystem of inventory management. For each of these subsystems, Tkachenko, VA and Pestovska, ZS (2014) proposed efficiency indicators based on generalized indicator of the efficiency of managing the financial needs of the enterprise can be obtained. This approach is quite promising, but it should be noted that the assessment of the effectiveness of financial needs management in it is weakly related to the development of the enterprise.

Thus, in general, it can be concluded that studies on the evaluation of the effectiveness of corporate finance management considered only some components of this problem, mainly without establishing links between the assessment of overall development and the effectiveness of financial management, and without taking into account the specifics of individual industries. Also, the assessment of the financial system of the enterprise was mainly carried out either by calculating a set of financial indicators, or combining them into one integrated indicator, without creating a system that would take into account their relative importance and connection with enterprise development in the information economy.

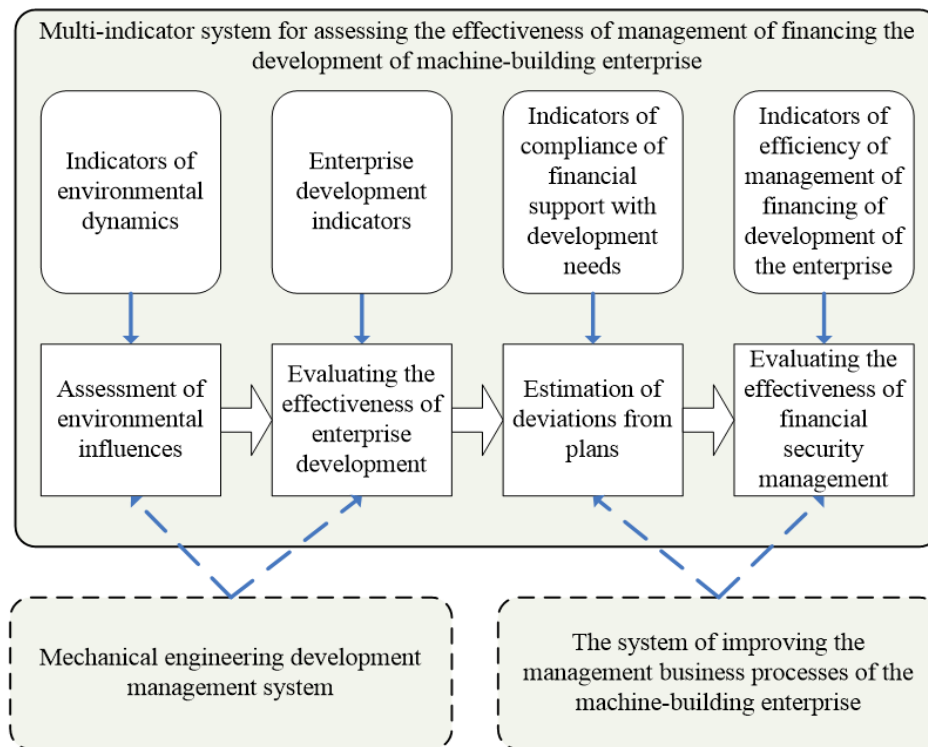
Therefore, there is a need to develop a multi-indicator system for assessing the effectiveness of management of financing the development of enterprises that must meet the following requirements:

based on key indicators of development of the enterprise of agricultural mechanical engineering which are important both for characterization of global development of the enterprise, and for an estimation of efficiency of management of financial maintenance;  
reflect the relationship between indicators of enterprise development and indicators of the effectiveness of its financial management in the dynamics;  
take into account the peculiarities of the external environment in which the development of agricultural machinery and evaluate the effectiveness of enterprise development and management of its financial support with adjustment for positive or negative external influences.

## Methodology

To solve the problems it is proposed to use the elements of mathematical modeling, the method of integrated evaluation with subsequent ranking and the method of analysis in dynamics.

The peculiarity of building a multi-indicator system for assessing the effectiveness of enterprise development finance management is its close connection with the enterprise development management system and the system of improving the management business processes of the enterprise are shown in Figure 1.



Source: own research

These systems are necessary to coordinate the management of financial support for development with the development of the enterprise and to improve the management system of the enterprise in general and financial security in particular based on the results of evaluating the effectiveness of financial management of enterprise development.

The multi-indicator system for assessing the effectiveness of enterprise development finance management includes the following groups of indicators:

indicators of environmental dynamics;  
 enterprise development indicators;  
 indicators of compliance of financial support with development needs;  
 indicators of efficiency of management of financing of development of the enterprise.

First of all, when assessing the effectiveness of financial management is a study of the effects on the development of the external environment. This function is subordinated to the enterprise development management system and is based on indicators of the dynamics of the external environment of the enterprise.

When studying the dynamics of the external environment that has an impact on the development of the enterprise, it is proposed to consider the following influential factors:

change in sales volumes on the world market;  
 changing the profitability of producers;  
 changing the availability of lending to producers to upgrade fixed assets;  
 change in prices for raw materials, primarily for metallurgical products;  
 change in the cost of attracting financial resources;  
 change in indices of availability of foreign markets;  
 change in the competitive position of the enterprise in terms of price characteristics due to fluctuations in exchange rates;  
 change in the competitive position of the enterprise in terms of product quality and its consumer properties.

Each of these factors has an impact on certain areas of enterprise development. Thus, each factor of the dynamics of the external environment is characterized by changes in time and weight characteristics of the impact on each direction of enterprise development.



In turn, the dynamics of enterprise development is assessed through the relevant development indicators, which are proposed to be grouped by areas:

- improvement of products produced by the enterprise;
- expansion of sales volumes and markets for products manufactured by the enterprise;
- improving the quality of enterprise management;
- improving the financial results of the enterprise.

That is, the development that requires appropriate financial support is proposed to be divided into management development, product quality development, sales development and development of financial results. The ultimate goal of any business development is the development of financial results, ie maximizing the profit or market value of the enterprise. But in strategic management is also important management development, product development and sales development, which may not have a direct and rapid return, but in the long run lead to improved financial results.

The direction of development of product quality includes improvement of consumer characteristics of products, its quality, cost reduction due to improved technology and use of more modern equipment, training of production staff and more.

The direction of management development means accelerating management decisions, increasing their validity, increasing the skills of management staff, improving the organizational structure, simplifying business processes and more.

The direction of sales development is both a simple increase in sales and expansion of the range, the creation of new offices, entering the markets of other countries, the formation of stable relationships with large regular consumers.

Finally, the development of financial results is an increase in profit before mandatory payments, net profit, growth in market value of the enterprise, profitability.

Each of the areas of development is influenced by environmental factors. Impacts can be both negative, which hinder the achievement of planned development indicators, and positive, which provide improvement of indicators even without the necessary measures. Taking into account these external influences makes it possible to more adequately assess the development of the enterprise and take into account what part of this successful development or, conversely, failures in development activities, is provided by effective management, and what favorable or unfavorable situation. Estimates of the strength of each impact of the external environment on the development of the enterprise are shown in Table 1.

**Table 1.**  
*Influences of the external environment on the efficiency of enterprise development by areas of development*

Influences of the external environment	Directions of development			
	product quality development	management development	sales development	development of financial results
change in sales on the world market	0	0	0,1	0,1
changing the profitability of producers	0	0	0,1	0,1
changing the availability of lending to manufacturers to upgrade fixed assets	0	0	0,1	0,05
change in raw material prices	0,1	0,1	0,1	0,2
change in the cost of attracting financial resources	0,2	0,2	0	0,2
change in indices of availability of foreign markets	0,2	0,3	0,2	0,1
change in the competitive position of the enterprise in terms of price characteristics due to fluctuations in exchange rates	0	0,1	0,2	0,1
change in the competitive position of the enterprise in terms of product quality and its consumer properties	0,5	0,3	0,1	0,05

Source: own research

Thus, when assessing the development of the enterprise, it is proposed to take into account whether this development is achieved through quality management or due to positive environmental influences, or vice versa, failures in development plans due to poor management or unexpected negative external influences (Hroznyi et al., 2018). The calculation of the effectiveness of management of enterprise development taking into account the effects of the external environment is proposed to be carried out according to the formula:

$$R'_{t,n} = \frac{R_{t,n}}{Z_{t,n}},$$

where  $R'_{t,n}$  – efficiency of enterprise development management taking into account the influences of the external environment in the n-th direction of development in the t-th time period;

$R_{t,n}$  – the effectiveness of enterprise development management without taking into account the influences of the external environment in the n-th direction of development in the t-th time period;

$Z_{t,n}$  – the total impact of the external environment on the development of the enterprise in the n-th direction of development in the t-th time period.

In turn, the effectiveness of enterprise development management without taking into account the influences of the external environment in the n-th direction of development is calculated as the difference between planned and actually achieved indicators, taking into account the weight of each indicator:

$$R_{t,n} = \sum_k v_k \frac{F_{t,k}}{P_{t,k}},$$

where  $v_k$  – the weight of the k-th indicator included in the index of efficiency of enterprise development management;

$F_{t,k}$  – the actual value in the t-th time period of the k-th indicator included in the index of efficiency of enterprise development management;

$P_{t,k}$  – the planned value in the t-th time period of the k-th indicator which is included in the index of efficiency of management of development of the enterprise.

The total impact of the external environment on the development of the enterprise in the n-th direction of development in the t-th time period is calculated depending on the change of the indicator compared to the previous period and the strength of its impact are shown in Table 1.

$$Z_{t,n} = \sum_u w_u^n \left( \frac{Q_{t,u}}{Q_{t-1,u}} \right)^{s_n},$$

where  $w_u^n$  – the strength of the influence of the u-th external factor on the n-th direction of enterprise development;

$Q_{t,u}$  – the value of the u-th external factor in the t-th time period;

$Q_{t-1,u}$  – the value of the u-th external factor in the t-1st time period;

$s_n$  – degree that makes it possible to take into account the direction of the influence of the u-th external factor on the n-th direction of enterprise development,

$$s_n = \begin{cases} 1, & \text{if } Q_{t,u} > Q_{t-1,u} \text{ corresponds to the positive impact} \\ -1, & \text{if } Q_{t,u} < Q_{t-1,u} \text{ corresponds to the negative impact} \end{cases}$$

Thus, the value of the indicator  $R'_{t,n} > 1$  shows that development management is generally effective despite distortions from external influences. That is, if the ratio of the indicator of the effectiveness of development management to the indicator of environmental impacts is more than one, it means that even in the case of positive impacts, advanced development is provided by management efficiency, not only favorable environmental conditions. Accordingly, in the case of negative impacts, if the indicator is above one, then development management was able to overcome the consequences of negative phenomena.

After assessing the effectiveness of enterprise development in general, a study of deviations from the plans of financial development can be carried out using indicators of compliance of financial support to the needs of enterprise development. The compliance of financial support with the objectives of enterprise development can be assessed by several criteria:

- compliance with the total amount;
- compliance with the schedule;
- compliance with the cost of financial security.

The total compliance indicator reflects whether the financial support is sufficient to implement the enterprise development plan.

$$F_n^T = \frac{\sum_{n,t} W_{n,t}^F}{\sum_{n,t} W_{n,t}^P},$$

where  $F_n^T$  – indicator of compliance of financial support with development tasks in the n-th direction;  
 $W_{n,t}^F$  – the actual amount of financial support for the n-th direction of enterprise development in the t-th time period;  
 $W_{n,t}^P$  – the planned amount of financial support for the n-th direction of enterprise development in the t-th time period.

The compliance indicator on the schedule of provision shows whether the financial security is sufficient in each period and what is the total deviation, and the excess in one stage does not allow to compensate for the shortfall in the other. The indicator is calculated by the cumulative total:

$$F_{n,t}^G = \frac{\sum_r (\min(W_{n,r}^F, W_{n,r}^P) - W_{n,r}^P)}{\sum_t W_{n,r}^P},$$

$r = 1, \dots, t,$

where  $F_{n,t}^G$  – indicator of compliance of financial support with development tasks according to the schedule of financial support in the t-th time period according to the n-th direction of enterprise development;  
 $W_{n,r}^F$  – the actual amount of financial support for the n-th direction of enterprise development in the r-th time period;  
 $W_{n,r}^P$  – the planned amount of financial support for the n-th direction of enterprise development in the r-th time period.

The indicator of compliance with the cost of financial security reflects whether the plan to attract financial security for different sources of involvement, is calculated cumulatively:

$$F_{n,t}^C = \frac{\sum_r (C_{n,r}^P - C_{n,r}^F) W_{n,r}^F}{\sum_r C_{n,r}^P W_{n,r}^P},$$

$r = 1, \dots, t,$

where  $F_{n,t}^C$  – indicator of compliance with the cost of financial support of the n-th direction of enterprise development in the t-th time period;  
 $C_{n,r}^P$  – planned cost of financial support of the n-th direction of enterprise development in the r-th time period;  
 $C_{n,r}^F$  – the actual cost of financial support of the n-th direction of enterprise development in the r-th time period;  
 $W_{n,r}^F$  – the actual amount of financial support for the n-th direction of enterprise development in the r-th time period;  
 $W_{n,r}^P$  – the planned amount of financial support for the n-th direction of enterprise development in the r-th time period.

Based on the results of the evaluation of the efficiency of the enterprise development and the evaluation of deviations from the plans, a direct evaluation of the efficiency of financial security management can be carried out. To do this, a score is set for each of the indicators of compliance of financial support to the

needs of enterprise development and for the indicator of the effectiveness of enterprise development in general.

Evaluation criteria are shown in Table 2.

**Table 2.**  
*Criteria for a multi-indicator system for evaluating the effectiveness of financial management.*

Indicator	Evaluation criteria	The maximum is possible
An indicator of the effectiveness of enterprise development management, taking into account the effects of the external environment	12 points for each effective direction	48
Indicator of compliance of financial security in total	7 points for each effective direction	28
Indicator of compliance of financial support according to the schedule of provision	4 points for each effective direction	16
Indicator of compliance with the cost of financial security	2 points for each effective direction	8

Source: own research

Thus, the maximum possible assessment of the effectiveness of management of financing the development of the enterprise in each time period is equal to one hundred points. This assessment is considered ideal. A score of 92 to 99 indicates the presence of some problems in the system of financial support for development, but which certainly do not have consequences for the effectiveness of development as a whole. Such an assessment is possible when there are minor problems in only some areas in the cost of raising financial security or non-compliance with the schedule of providing financial security in no more than one area. A score of 76 to 91 is considered good, indicating problems in the system of financial support for development, but which do not have critical consequences. Such an assessment may arise when there are problems in several areas and in all indicators of compliance of financial support with development objectives, but in general the development of the enterprise does not suffer from this. The score from 52 to 75 is generally considered satisfactory but needs significant improvements in the financial management system. This assessment indicates possible problems with all types of indicators considered. Finally, a score of less than 51 is considered unsatisfactory and indicates significant deficiencies in the financial management system and the development of the agricultural machinery industry as a whole.

The overall assessment of the effectiveness of enterprise development finance management based on the results of all time periods under consideration can be calculated at least among all estimates received, or taking into account the fact that the last periods of analysis are more important and should be greater. In the latter case, the total estimate can be calculated as a time-weighted arithmetic mean:

$$E^F = \frac{\sum_t t E_t^F}{\sum_t t}$$

where  $E_t^F$  – general assessment of the effectiveness of financial management of the enterprise;  
 $E_t^F$  – the effectiveness of financial management of the enterprise in the t-th period.

The general assessment of the effectiveness of the management of financial security of the enterprise should be interpreted in the same way as the corresponding assessment in certain time periods.

Thus, the developed multi-indicator system for assessing the effectiveness of financial management of enterprise development is based on the selection of key indicators of enterprise development, determining their importance for global enterprise development and for financial management and establishing links between these indicators in the dynamics.

**Results and Discussion**

The practical approbation of the developed multi-indicator system for assessing the effectiveness of management of financing the development of enterprises was carried out at the domestic enterprise of agricultural engineering PJSC "Harvesters". It was established that development management without taking into account external influences was effective in the areas of product quality development, management development and development of financial results. At the same time, sales development was unsatisfactory both in terms of the calculation of integrated indicators and a simple estimate of sales. At the same time, the results of the environmental impact assessment showed that the impacts were positive in all areas. Moreover, the most positive were external influences in areas that contribute to measures to develop product quality and sales activities. The final indicators of the effectiveness of development management, taking into account the effects of the environment, show that as well as without taking into account external influences, three of the four areas were effective and outpaced compared to external factors are shown in Table 3.

**Table 3.**  
*Effectiveness of development management taking into account the effects of the external environment of PJSC "Harvesters" in 2020 by areas of development.*

Indicator	Directions of development			
	product quality development	management development	sales development	development of financial results
Evaluations of the effectiveness of development management	1,600	1,128	0,853	1,364
Influences of the external environment on the efficiency of development	1,026	1,016	1,028	1,005
Effectiveness of development management taking into account the influences of the external environment	1,558	1,110	0,830	1,357

Source: own research

According to the results of compliance of financial support with the development objectives of PJSC "Harvesters" in 2020, it was established that the total amount of financial support plans in all areas except sales development are shown in Table 4.

**Table 4.**  
*Correspondence of financial support to the needs of development of PJSC "Harvesters" in 2020 by areas of development.*

Directions of development	Indicators of compliance of financial support with the needs of enterprise development		
	compliance in total	compliance with the provision schedule	compliance with the cost of financial security
product quality development	1	0	-0,2
management development	1	0	-0,2
sales development	0,7	-0,3	-0,14
development of financial results	1	0	-0,2

Source: own research

Similarly to compliance indicator on the schedule. At the same time, plans for any of the areas of development have not been implemented in terms of financial security, which is due to the increase in the actual cost of attracting financial resources compared to the planned development strategy of PJSC "Harvesters". This indicates the need for more careful planning of sources of financial resources or to attract their own resources.

The overall assessment of the effectiveness of development finance management of PJSC "Harvesters" in 2020 is 69 points, ie it can be considered satisfactory in general, but needs significant improvements in the system of financial management of development. First of all, attention should be paid to the development sales of PJSC "Harvesters" in 2020 had both a decrease in sales and unsatisfactory results in the development of new markets for agricultural machinery. In addition, the segment of attracting financial resources, which needs to improve planning, is unsatisfactory.

Thus, thanks to the developed multi-indicator system for assessing the effectiveness of management of financing the development of enterprises, the analysis of financial support for the development of PJSC "Harvesters" in 2020 and conclusions on improving the management system of financial development.

## Conclusions

It is established that the peculiarity of evaluating the effectiveness of management of financing the development of agricultural machinery in the information economy is the dependence of the evaluation process and criteria on the dynamics of the external environment. The effectiveness of the enterprise in general and its financial support in particular depends on how effectively the opportunities were used and the negative effects were overcome, and not just as an absolute or relative increase in any one indicator. Therefore, there is a need to develop a multi-indicator system for assessing the effectiveness of management of financing the development of enterprises.

Requirements to the multi-indicator system for assessing the effectiveness of management of financing the development of enterprises: based on key indicators of development of agricultural machinery, which are important for characterizing the global development of the enterprise and for assessing the effectiveness of financial management; reflection of the relationship between indicators of enterprise development and indicators of the effectiveness of its financial management in the dynamics; taking into account the peculiarities of the external environment in which the development of the enterprise of agricultural engineering and assessing the effectiveness of enterprise development and management of its financial support with adjustment for positive or negative external influences.

The developed multi-indicator system for assessing the effectiveness of management of financing the development of agricultural machinery of PJSC "Harvesters" was tested. It is concluded the effectiveness of development finance management of PJSC "Harvesters" in 2020 is generally satisfactory, but needs improvements in the financial management system of development. First of all, attention should be paid to the development of sales. In addition, the segment of attracting financial resources, which needs to improve planning, is unsatisfactory.

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## Rhetoric of direct and indirect notation of concepts: the procedure of transformation of an idea into an effect

### Риторика прямого та непрямого позначення концептів: процедура трансформації ідеї в ефект

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#### Abstract

The paper dwells on the textual ways direct and indirect references to concepts transform into particular effects. The topicality of the publication is brought about by the necessity to study the impact on the audience achieved by verbal formation of particular impressions. The goal of the article is to reveal how the direct reference to the democracy concept or its absence creates the desired effect in the inaugurals by American Presidents Obama and Biden. The paper applies the rhetorical methodology of idea-turned-impression to explain the way the concept named in the beginning of a speech transforms into a particular effect meant to influence the audience. It is found that the indirect reference to the democracy concept is implemented by the units of two groups: basic-level, indicating the people and the government, and axiological, naming freedom, equality, unity etc. The direct reference by the noun 'democracy' performs compositional and persuasive – existential and metaphorical – functions. The methodology of the article includes methods of analysis and synthesis, as well as special methods of knowledge, which are typical for philology.

**Keywords:** concept, inaugural speech, direct reference, indirect reference, axiological unit, rhetoric.

#### Анотація

У статті розглядаються текстові способи трансформації прямого і непрямого позначення концептів у певні ефекти. Актуальність теми публікації визначається необхідністю встановлення шляхів впливу на аудиторію через вербальне творення певних вражень. Мета статті полягає у виявленні того, як прямі та непрямі засоби позначення концепту демократії створюють відповідний ефект в інавгураційних виступах американських президентів Обами і Байдена. Пропонована розвідка застосовує лінгвориторичну методіку трансформації ідеї в ефект задля пояснення того, як позначення концепту або його відсутність у вступі промови впливає на формування відповідного враження упродовж тексту. Встановлено, що непряме втілення концепту демократії досягається одиницями двох груп: базовими, що іменують людей та уряд, з якими адресат перебуває у повсякденній взаємодії, та оцінними, що іменують свободу, рівність, єдність тощо. Пряме позначення концепту іменником «демократія» виконує композиційну й переконувальну – екзистенційну та метафоричну – функції. Методологія статті включає методи аналізу і синтезу, а також спеціальні методи пізнання, які характерні для мовознавства.

**Ключові слова:** концепт, інавгураційна промова, пряма референція, непряма референція, оцінна одиниця, риторика.

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## Introduction

The research question is how the direct reference to the democracy concept or its absence influences the creation of the desired effect in American presidents' inaugurals. Therefore, this paper compares President Obama's first inaugural (Obama, 2009) with no lexical units directly referring to democracy with his second address (Obama, 2013) where he uses the corresponding noun two times and with that of President Biden (Biden, 2021) who employs the term quite profusely. The choice of the speeches by these two presidents is explained by their affiliation to the same – Democratic – party bringing forth the specificity of their idiolects. President Trump's address is left aside because of his belongingness to a different party.

We turn to the concept of democracy which becomes commonly referred to in American presidents' inaugurals of the 20th century (Rattner, 2021). It is noted that President Biden employed the noun 'democracy' 11 times, Harry Truman turned to it nine times in his 1949 address, and Franklin D. Roosevelt did the same in 1941 (Rattner, 2021). However, in his 2009 address President Obama failed to use the noun triggering concern that he followed a misguided realism rejecting democracy promotion (Bouchet, 2010). Nevertheless, he is neither the first nor the last to do so being preceded by President Reagan (1981) and followed by President Trump (2017).

Concepts turn out to be the most widespread object of linguistic study (Concepts and Contrasts, 2017). However, their investigation faces a number of challenges in the context of the general research procedures of analysis and synthesis. Concepts are mainly seen as separate memory units denoted by particular words with the explanatory adequacy of a concept-based semantics undermined by a lack of agreement about what the concepts underlying meaning are. If linguists move this way the number of conceptological works may become infinite. For instance, the English language with its million words may require the corresponding number of studies dealing with concepts. If we take into account word combinations and proper names the number of concepts might triple. Turning to other languages and studying concepts from the comparative point of view we are likely to get a false impression that they are the only object of study in linguistics. It means that time has come to turn to the synthetic study of concepts either from the viewpoint of language or speech. The former requires systematizing the bulk of the

known concepts, establishing their interrelations and pinpointing the mental structures they are subordinated to. The latter presupposes a study of the concepts' role of in discourse, i.e. their use in the texts of different genres.

Among other things, the authors conclude that the rhetoric of direct and indirect reference to concepts with application of the idea-turned impression procedure influences the audience in a complementary way. The indirect reference is achieved by the units of two groups: basic-level, referring to the people and the government, on the one hand, and axiological, naming freedom, equality, unity and other democratic values, on the other. The direct reference by the noun 'democracy' evoking the concept's superordinate level towers over the basic and axiological constituents.

## Theoretical Framework or Literature Review

Inaugurals are mainly studied from the viewpoint of speakers delivering them. Some researchers take into account presidents' intentions, discursive strategies and rhetorical devices expressing political views (Biria & Mohammadi, 2012, p. 1290). Others focus on inaugurals' structure singling out elements differing in their specificity. The most schematic view considers the inaugurals' structure in terms of minimal or enhanced topical moves (Gruber, 2013, p. 54). The less general approach outlines more particular constituents: they are meant to unify the audience, to rehearse communal values, to set forth the political principles, to demonstrate the President's appreciation of the requirements and limitations of his executive functions, to urge contemplation not action, to focus on the present while incorporating past and future, to praise the institution of the Presidency and the values and form of the government of which it is a part (Campbell & Jamieson, 1986, p. 396). The particularizing approach concentrates on minute elements of an inaugural: the tone-setting introduction, the acts of thanking the predecessor, of invoking continuity of beliefs and ideals, etc (Cap & Okulska, 2013, p. 4).

However, the approaches outlined above overlook the audience's impressions of the speeches which are studied by the rhetoric of effect (Potapenko, 2016, p. 12) going back to ancient ethos (Burke, 2016, p. 43). The rhetoric of effect employs the idea-turned-impression procedure revealing how the concept named in the beginning transforms throughout the speech

into a particular effect meant to linger with the addressees (Potapenko & Izotova, 2021, p. 165).

This procedure has been applied to the study of several verbalized impressions: freedom celebration and freedom defense in inaugurals of J.F. Kennedy and G.W. Bush (Potapenko, 2016, p. 12); responsibility in the addresses of Russian and Ukrainian presidents (Potapenko & Izotova 2021, p. 165). It appears that the formation of impressions is mainly based on the interaction of two cognitive procedures: categorizing, dealing with the classification of the named entities, and sensorimotor, relating our mental operations to the perceptual activity. The former take into account three categorization levels: basic, connected with our sensorimotor experience (e.g. chair); superordinate, i.e. located above the basic level (e.g. furniture); subordinate, dealing with the instances of the basic-level entities (e.g. easy chair) (Rosch, 2009, p. 41). The sensorimotor procedures are explained by the force-dynamic methodology initially applied to the description of causal and concessive relations drawing on two forces: Agonist, a focal entity, and Antagonist, a unit opposing it (Talmy, 2000, p. 410). Both forces may have two inner tendencies: to motion, revealing their energy, and to rest, implying its lack. The classical “causative” pattern explains the meaning of the sentence “The ball kept rolling because of the wind blowing on it” (ibid.). In the cited example, the noun ‘ball’ denotes an Agonist with an intrinsic tendency to rest. It is opposed by a stronger Antagonist, named by the noun wind: it overcomes the Agonist’s loss of energy and compels it to move. The extension of this theory to the description of discursive relations helps to reveal the addressee’s impressions in the way discussed in the next section.

### Methodology

The methodology of the article includes methods of analysis and synthesis, induction and deduction. The method of analysis was tested by the authors for the follow-up to the inaugural promotions of Presidents Obama and Biden. The method of synthesis allowed the use of textual methods of transformation of direct and indirect recognition of concepts in song effects, which are featured in promos.

The method of transformation of an idea into an effect is aimed at pinpointing the impressions speeches produce on the audience consists of four stages: identifying, analytical, categorizing and effect-revealing.

The identifying stage is aimed at determining the impression a speaker intends to produce by singling out particular words. The introduction to President Obama’s 2009 inaugural is very personal beginning with the idea of humility followed by references to gratitude and sacrifices, e.g. “I stand here today humbled by the task before us, grateful for the trust you have bestowed, mindful of the sacrifices borne by our ancestors” (Obama, 2009). Conversely, his 2013 address opens up with the idea of democracy indicated by the corresponding noun, e.g. “Each time we gather to inaugurate a President we bear witness to the enduring strength to our Constitution. We affirm the promise of our democracy” (Obama, 2013). Consequently, the introductions show that the first speech is based on personal sentiments explaining the absence of the noun ‘democracy’ while the second address turns to the concept under discussion at the outset.

The analytical stage is aimed at examining the definitions of the words naming particular concepts in the introduction. This analysis reveals two main interpretations of democracy: nuclear, i.e. “government by the people”, and extended, i.e. “a government in which the supreme power is vested in the people and exercised by them directly or indirectly through a system of representation usually involving periodically held free elections” (Merriam-Webster Dictionary, 2022). The first definition rests on the semantic features ‘government’ and ‘people’ while the second interpretation is supplemented with the features revealing characteristics of developed democracy: ‘supreme power’ and ‘elections’. However, other dictionaries foreground additional – axiological – semantic features extending the basic understanding of democracy. They are ‘freedom’ and ‘equality’ in the definition “the belief in freedom and equality between people, or a system of government based on this belief, in which power is either held by elected representatives or directly by the people themselves” (Cambridge Dictionary, 2022).

The categorization stage relates the indicated semantic features to three levels of the concept. The basic features are ‘people’ and ‘government’ since conceptualizers can interact with the denoted entities at the sensorimotor level. The superordinate features cover entities of two types: existential, denoted by the noun ‘democracy’ which refers to government by people distinguishing it from other concepts; axiological, encompassing freedom and equality. However, the analysis of the inaugurals suggests

that the developed democracy and speakers' preferences may evoke additional features.

The effect-revealing stage concerns determining the relations between different components of the democracy concept, on the one hand, and the phenomena it is related to, on the other. This impression can be triggered directly by the noun 'democracy' and indirectly by the units referring to the concept's basic-level and axiological constituents.

The effect-revealing stage draws on further development of the force-dynamic theory. On the one hand, it is applied to the study of relations within an utterance, paragraph or textual section exemplified by Talmy's utterance discussed above: "The ball kept rolling because of the wind blowing on it" (Talmy, 2000, p. 410). On the other hand, it presupposes a transformation of the original binary opposition between the Agonist and the Antagonist into a sequence of energy transmission from one entity to another, e.g. "We affirm the promise of our democracy" (Obama, 2013). In the cited utterance, the pronoun 'we' represents the speaker together with the audience as an Agonist, i.e. a focal force, with a tendency to motion denoted by the verb 'affirm' while the noun 'promise' denotes an Antagonist passing over energy to another Antagonist indicated by the unit "democracy". It gives grounds to distinguish two textual tendencies to motion employed to characterize event participants: internal, brought about by the inner energy of a focal entity, and sequential, resulting from the impact of external sources. A similar distinction concerns the tendency to rest which may result into Antagonist's subsequent immobility or loss of force with a final decay or demise.

The suggested methodology is employed to analyze direct and indirect verbalization of the democracy concept in the inaugurals under study.

## Results and Discussion

The application of the methodology outlined above reveals that inaugurals produce the intended impression in two ways: directly, using the noun 'democracy' in the introduction and throughout the text, and indirectly, by the basic-level and axiological terms.

The indirect appeal to democracy is characteristic of President Obama's first address (Obama, 2009). The impression of democracy is evoked by the nouns referring to the basic-level entities represented by the people and the president, on the one hand, and by the axiological

units referring to freedom and equality, on the other. The textual distribution of the units interacts with particular sections of the inaugural. The introduction to Obama's 2009 address rests on the negative-positive antithesis between the gloomy state of the country described by the basic-level units and the positive axiology denoted by the terms 'equal' and 'free', creating an impression of a powerful nation:

"Homes have been lost, jobs shed, businesses shuttered. Our health care is too costly, our schools fail too many – and each day brings further evidence that the ways we use energy strengthen our adversaries and threaten our planet".

"The time has come to reaffirm our enduring spirit; to choose our better history; to carry forward that precious gift, that noble idea passed on from generation to generation: the God-given promise that all are equal, all are free, and all deserve a chance to pursue their full measure of happiness". (Obama, 2009)

The nouns 'homes', 'jobs', 'businesses', as well as the deictic unit 'we' and the possessive pronoun 'our' combined with the units 'health care' and 'schools' depict America as an Agonist with a tendency to rest evoked by the units referring to failures and weaknesses: 'lost', 'shed', 'shuttered', 'too costly', 'fail'. Moreover, the noun 'adversaries' names a powerful Antagonist with a tendency to motion rendered by the verbs 'strengthen' and 'threaten'. However, the axiological units 'equal' and 'free' convey the nation's success, indicated by the combination of the possessive pronoun 'our' and the quantifier 'all' with the units 'reaffirm', 'better' (history), 'to carry forward' (that precious gift). They render a gradual increase in the dominance of this trend by the adjectives 'equal', 'free' and the noun 'happiness' positioning the axiological component of the concept as an Antagonist with a sequential motion subordinated to the Almighty and the earlier generations.

Another American value – equality – is implied by the utterance "We are a nation of Christians and Muslims, Jews and Hindus, and non-believers". (Obama, 2009) The pronoun 'we' portrays the president together with the audience as an Agonist moving towards the unification of different religious groups denoted by the units 'Christians and Muslims', 'Jews and Hindus', 'non-believers'.

The following sections of Obama's 2009 inaugural turn to a number of American values subordinated to freedom. Some of them are connected with its defense discussed in the excerpt about the country's citizens serving in distant lands: "We honor them not only because they are guardians of our liberty, but because they embody the spirit of service; a willingness to find meaning in something greater than themselves". (Obama, 2009)

The passage above suggests that the defenders, denoted by the construction 'guardians of our liberty', act as supporters of freedom due to their internal energy. It provides them with the role of an Agonist with a trend towards motion denoted by the constructions 'the spirit of service', 'a willingness', as well as by the comparative degree of the adjective 'greater' in the construction 'greater than themselves'.

The citizens' access to freedom and equality is exemplified in the 2009 speech by the opportunities opening up for ordinary Americans. They are free to attend the inauguration ceremony and to elect Barack Obama as the first African American president: "This is the meaning of our liberty and our creed - why men and women and children of every race and every faith can join in celebration across this magnificent mall, and why a man whose father less than sixty years ago might not have been served at a local restaurant can now stand before you to take a most sacred oath". (Obama, 2009) The passage above illustrates the triumph of freedom evoking two Agonists with a trend towards motion. First, it is 'men and women and children of every race and every faith' participating in the inauguration ceremony. Second, it is the President who 'takes a most sacred oath'. His Agonist role characterized by motion is underscored by depicting his father as an Antagonist with an inclination to rest rendered by the negative predicate in the subordinate clause 'whose father less than sixty years ago might not have been served at a local restaurant'. Moreover, the use of the indefinite group 'a man' to denote the president implies that anybody might find themselves in that place.

President Obama's 2009 inaugural speech is wrapped up with reference to freedom as the most important value to be passed over to future generations: "Let it be said by our children's children [...] we carried forth that great gift of freedom and delivered it safely to future generations". (Obama, 2009)

The pronoun 'we' unites the president with the American people, portraying them as an Agonist with a tendency to motion by the predicates 'carried forth' and 'delivered' representing freedom as an entity with a tendency to a sequential motion.

Direct references to the democracy concept are found in President Obama's second inaugural (Obama, 2013) and President Biden's address (Biden, 2021).

In President Obama's 2013 speech the noun 'democracy' referring to the concept's superordinate categorization level performs a text-forming function. It opens up the home and foreign policy sections filled in with the units referring to the concept's basic and axiological levels mainly retained from the first speech and enriched with a reference to unity.

In the beginning of the introduction the pronoun 'we' refers to the nation-Agonist with a tendency to motion indicated by the verbs 'gather', 'bear' and 'affirm' while the inception of the home policy section is signaled at the end of the introduction by the noun 'democracy' representing an Antagonist with a tendency to sequential motion dependent on the people: "Each time we gather to inaugurate a President we bear witness to the enduring strength to our Constitution. We affirm the promise of our democracy". (Obama, 2013)

The introduction also turns to the concept's supreme axiological components laid down in the Declaration of Independence with the pronoun 'we' representing the nation as an Agonist with a tendency to sequential motion subordinated to the Antagonists indicated by the nouns 'truths' and 'Creator': "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable rights, that among these are Life, Liberty, and the pursuit of Happiness." "Today we continue a never-ending journey, to bridge the meaning of those words with the realities of our time. For history tells us that while these truths may be self-evident, they have never been self-executing; that while freedom is a gift from God, it must be secured by His people here on Earth". (Obama, 2013)

The second paragraph of the cited passage locates the concept of freedom against the background of history perceived as a journey initiated by the Declaration of Independence positioned as an Agonist with a sequential motion subordinated to a number of superior

Antagonists: from the Almighty ('freedom is a gift from God') to his people on Earth ('it must be secured by His people') and the inauguration ceremony's attendees. In other words, like the 2009 inaugural the prominence of the democracy concept is achieved by reference to the basic-level component representing the people. They act as an Agonist with a tendency to sequential motion triggered by the Creator and the truths.

The next direct appeal to democracy opens up the international section of the speech: "We will support democracy from Asia to Africa, from the Americas to the Middle East, because our interests and our conscience compel us to act on behalf of those who long for freedom". (Obama, 2013)

In this passage the pattern evoking the concept is very much similar to that of the home section. The pronoun 'we' unites the nation around the president while the verb 'support' represents them as an Agonist with a clear tendency to motion which is intensified by the modifiers 'from Asia to Africa', 'from the Americas to the Middle East' representing democracy as an Antagonist with a sequential motion. Against this backdrop, freedom as a global value is depicted as an Antagonist inclined to rest by the verb 'long for' implying lack of liberty in individual countries. The analyzed excerpt implies that thanks to the Americans democracy is spreading all over the globe, since the nation as a strong Agonist acts on the weaker Antagonists world over urging them to embrace the concept's axiological components.

President Obama's 2013 speech ends up with an appeal to freedom as the leading democracy component subordinated to human activity. It is endowed with a tendency to sequential motion by the verbs 'carry forth' and 'carry' (into an uncertain future that precious light of freedom): "With common effort and common purpose, with passion and dedication, let us answer the call of history, and carry into an uncertain future that precious light of freedom". (Obama, 2013)

It is clear that President Obama's 2013 speech evokes the basic-level and axiological components of the 2009 address with the noun 'democracy' towering over them in its compositional function.

In President Biden's 2021 inaugural the concept's superordinate-level component performs more functions than in his predecessor's: it structures the introduction and represents democracy as an existential entity.

The introduction employs the noun 'democracy' five times portraying the concept as a supreme existential entity with its strengths and weaknesses: "This is America's day. This is democracy's day. [...] Today, we celebrate the triumph not of a candidate, but of a cause, the cause of democracy. The will of the people has been heard and the will of the people has been heeded. We have learned again that democracy is precious. Democracy is fragile. And at this hour, my friends, democracy has prevailed". (Biden, 2021)

At the introduction's outset the existential essence of democracy is emphasized by the statement 'this is democracy's day' followed by the verb 'celebrate' and the noun 'triumph' in the third utterance. Those units portray democracy as an Antagonist with a more pronounced tendency to motion than the people indicated by the pronoun 'we' in the third utterance. The supremacy of democracy is additionally emphasized by contrast between the noun 'candidate' denoting a single individual and the phrase 'cause of democracy' referring to a movement to which one is committed.

The introduction underscores the importance of democracy by the adjectives 'precious' meaning a highly esteemed entity and 'fragile' referring to something easily broken or destroyed. The contrast between these two metaphors implies that democracy requires human assistance. The introduction ends with the verb 'prevail' returning the listener to the dominance of democracy and portraying it as an Agonist with a tendency to motion which paves the way for its further discussion in the speech.

The existential essence of democracy interacts with reference to the axiological components of justice and unity.

First and foremost, racial justice is depicted as an inseparable part of a democratic state serving the people: "A cry for racial justice some 400 years in the making moves us. The dream of justice for all will be deferred no longer". (Biden, 2021)

In the utterance above the phrase 'racial justice' represents the concept's axiological component as an Antagonist with a tendency to sequential motion triggered by the human activities denoted by the nouns 'cry' and 'dream'. The consequence is indicated by the verb 'move' representing the nation denoted by the pronoun 'us' as another Antagonist with sequential motion. Further dissemination of this value is underscored by the combination of the noun 'justice' with the

quantifier ‘all’ and the predicative group ‘will be deferred no longer’.

The value of unity is emphasized by the repetition of the noun naming it after the unit ‘democracy’ in the next paragraph: “To overcome these challenges – to restore the soul and to secure the future of America – requires more than words. It requires that most elusive of things in a democracy: Unity. Unity”. (Biden, 2021)

The quoted passage contrasts two Antagonists with a tendency to motion. The first one is denoted by the unit ‘these challenges’ combined with the predicate ‘requires’ while the second one is designated by the noun ‘unity’ interacting with the construction ‘most elusive of things’.

The national section addressing the country reunites the concept’s basic and superordinate levels, criticizing those who have tried to destroy the country’s democracy:

“And here we stand, just days after a riotous mob thought they could use violence to silence the will of the people, to stop the work of our democracy, and to drive us from this sacred ground”. (Biden, 2021)

“To all those who did not support us, let me say this: Hear me out as we move forward. Take a measure of me and my heart. And if you still disagree, so be it. That’s democracy. That’s America. The right to dissent peaceably, within the guardrails of our Republic, is perhaps our nation’s greatest strength”. (Biden, 2021)

The phrase ‘here we stand’ in the first utterance of the cited passage conveys the steadfastness of the nation, endowing it with the role of an Agonist with a tendency to rest opposing the mob depicted in the subordinate clause as another Agonist though with an inclination to chaotic motion indicated by the adjective ‘riotous’. Instead, the Antagonist with an overpowering inclination to rest meant to inspire confidence is denoted by the phrase ‘the will of the people’, the noun ‘democracy’ in conjunction with the verbs ‘silence’, ‘stop’, and the phrase ‘to drive us from this sacred ground’.

The second paragraph of the passage above represents the concept’s basic level by the people denoted by the phrase ‘all those who did not support us’, by the president, self-identified by the pronoun ‘me’, by his unification with the nation indicated by the deictic unit ‘we’. The existential dominance of the concept’s

superordinate component is reflected by the nouns ‘democracy’ and ‘America’ in the utterances ‘That’s democracy. That’s America’. Next to them the axiological component of freedom of speech is depicted as an Agonist with a tendency to steady motion due to the combination of the phrase ‘right to dissent’ with the predicative group ‘is our nation’s greatest strength’.

The home affairs section focuses on the threats to democracy drawing on the concept’s basic and superordinate levels:

“We face an attack on democracy and on truth. A raging virus. Growing inequity. The sting of systemic racism. A climate in crisis. America’s role in the world. Any one of these would be enough to challenge us in profound ways. But the fact is we face them all at once, presenting this nation with the gravest of responsibilities”. (Biden, 2021)

This passage emphasizes the threats to democracy positioning the audience denoted by the pronoun ‘we’ as an observer-Agonist with a tendency to rest indicated by the predicative group ‘face them all at once’. Moreover, the noun ‘democracy’ also represents the denoted entity as an Agonist inclined to rest, since the denoted entity is under attack, while the Antagonists with a tendency to motion and dominance are associated with harmful sources denoted by the units ‘virus’, ‘inequity’, ‘racism’, ‘climate crisis’.

The home affairs section is concluded with reference to all components of the concept underscoring the President’s ability to support democracy: “I will defend our democracy. That democracy and hope, truth and justice, did not die on our watch but thrived. That our America secured liberty at home and stood once again as a beacon to the world”. (Biden, 2021)

First, the pronoun ‘I’ together with the verb ‘defend’ referring to blockage depicts the president as an Agonist with a tendency to motion which leads to the perception of democracy as an Antagonist with an inclination to rest. Second, in the next sentence the nouns ‘democracy’, ‘hope’, ‘truth’ and ‘justice’ combined with the verb ‘thrive’ refer to the new leader’s positive achievements representing the axiological components as an Agonist inclined to motion.

Unlike Obama’s inaugural, President Biden concludes his speech with a call for unity and

devotion to the state in the aftermath of the riots which preceded the ceremony:

“So, with purpose and resolve we turn to the tasks of our time. Sustained by faith. Driven by conviction. And, devoted to one another and to this country we love with all our hearts”. (Biden, 2021)

The passage above depicts the nation united around the president as an Agonist with a pronounced inclination to motion, denoted by the nouns ‘purpose’ and ‘resolve’ combined with the verb ‘turn’. This tendency is further emphasized by an appeal to faith and confidence, depicted as a source of motion by the participles ‘sustained’ and ‘driven’.

To sum up, for President Biden the most important component of the concept is the superordinate representation of democracy as an existential entity which opens up the speech and dominates over references to other constituents.

### Conclusions

The rhetoric of direct and indirect reference to concepts with application of the idea-turned impression procedure influences the audience in a complementary way. The indirect reference is achieved by the units of two groups: basic-level, referring to the people and the government, on the one hand, and axiological, naming freedom, equality, unity and other democratic values, on the other. The direct reference by the noun ‘democracy’ evoking the concept’s superordinate level towers over the basic and axiological constituents. President Obama’s 2009 inaugural referring to two components of the democracy concept combines the basic-level units naming the people and the president with axiological lexemes denoting freedom and equality depicted as a force with sequential motion subordinated to God and the nation. Meanwhile, the superordinate component denoted by the noun ‘democracy’ performs organizing functions. In Obama’s 2013 address it contributes to the composition of the text marking the beginning of the sections of home and foreign policies which is no surprise since categories are treated as containers. In President Biden’s speech the noun ‘democracy’ acquires a persuasive function representing the concept from varying perspectives: existential, underscoring its supremacy, and metaphorical, describing the fragility of the denoted entity which underscores the president’s ability to preserve it drawing on the values of freedom, equality and justice.

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## Reconstruction of digital filter parameters when changing the data arrival period

### Перестройка параметров цифрового фильтра при изменении периода поступления данных

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#### Abstract

We consider the problem of forming an algorithm for the operation of a digital filter that provides processing, according to a certain law, of discrete samples  $x[k]$  of some continuous signal  $x(t)$  at the moments of quantization  $t_k = k \cdot T_0$ , where  $T_0$  [second]- is the discreteness period in time, and  $k=0,1,2,..$  is the integer variable defining dimensionless discrete time. This work poses and solves the problem of forming the digital filter parameters restructuring, which ensures that the filtering properties remain unchanged when the frequency of information is changed, in particular, the constancy of the frequency and pseudo-frequency characteristics of the filter. An algorithm for restructuring the numerical parameters of the filter based on information about the time intervals of information arrival has been developed. At the stage of filter development, a special conversion matrix is formed for the specified parameters, and at the stage of filter operation in real time, an operational recalculation of the digital filter parameters is performed. For the test example, the calculation results are given, showing good tuning accuracy and stable filter characteristics with a significant change in the quantization frequency.

**Keywords:** digital filters, sampling period, parameter tuning, z-transfer functions, real frequency, pseudo-frequency, frequency response.

#### Аннотация

Рассматривается задача формирования алгоритма работы цифрового фильтра, обеспечивающего обработку, по определённому закону, дискретных выборок  $x[k]$  некоторого непрерывного сигнала  $x(t)$  в моменты квантования  $t_k = k \cdot T_0$ , где  $T_0$  [секунд]- период дискретности по времени,  $k=0,1,2,..$  целочисленная переменная, определяющая безразмерное дискретное время. В данной работе ставится и решается задача формирования перестройки параметров цифрового фильтра, обеспечивающей, при изменении частоты поступления информации, неизменность фильтрующих свойств. в частности постоянство частотной и псевдочастотной характеристик фильтра. Разработан алгоритм перестройки числовых параметров фильтра по информации об временных интервалах поступления информации. На этапе разработки фильтра, для задаваемых параметров производится формирование специальной матрицы пересчёта, а на этапе работы фильтра в реальном времени выполняется оперативный пересчёт параметров цифрового фильтра. Для тестового примера приводятся результаты расчёта, показывающие хорошую точность перестройки и стабильные характеристики фильтра при существенном изменении частоты квантования.

**Ключевые слова:** цифровые фильтры, период дискретности, перестройка параметров, z- передаточные функции, реальная частота, псевдочастота, частотная характеристика.

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## Introduction

In digital control of technology, radio communication and automation, digital filters (DF) are widely used, which provide processing of discrete samples of a continuous signal  $x(t)$  at fixed times  $t=k \cdot T_0$ , where  $T_0$  (second) is the certain step of discreteness in time,  $k=0,1,2,\dots$  is the integer variable that defines the dimensionless discrete time. The implementation of such devices is usually carried out on circuits containing registers and adders with certain coefficients; implementation in the form of a digital microprocessor device is possible (Serrezuela et al., 2017; Chen et al., 2020).

A certain filter functional is defined by a specific mathematical model, difference equation, by a corresponding  $z$ -transfer function, or by a discrete impulse transient function of the filter (Shamrikov, 1985; Oppenheim & Schaffer, R. 2018; Antonio, 1983). It should be noted that these models determine the operation of the filter at a specific value of the step  $T_0=1/f_0$ , where  $f_0$  (hertz) is the frequency of periodic sample arrivals of  $x[k]$  continuous signal  $x(t)$  (Gadzikovskiy, 2007; Adamou-Mitiche & Mitiche, 2019).

The time intervals of signal arrival in many technical problems can change significantly during operation, for example, as it is described in (Psiaki et al., 2014; Daneshmand et al., 2015). In particular, this may be due to a change in the nature of transmission over the radio path (Velikanova & Voroshilin, 2012; Xu et al., 2016) and also due to the conditions for receiving and transmitting information from continuous objects. So, in works (Sokolov et al., 2018; Kalmykov et al., 2020) the changes associated with the satellite measurement system are considered.

Without dwelling on the reasons for these phenomena, we will assume that the discreteness period  $T_0=1/f_0$  during system operation can change to the value  $TN=N/f_0$ , where  $N$  is some number characterizing the multiplicity of changes in the period relative to the calculated one (Koshita et al., 2017).

If the frequency changes during operation  $f_0$  of data arrival on frequency  $fN=f_0/N$  the properties of the filter will change, and with a significant change in frequency, such filtering can lead to unsatisfactory results, if the device parameters are not rebuilt. Particularly critical change of  $f_0$  is for digital automatic systems (Shamrikov, 1985), where DF operates in a closed control loop, and a change in their properties can lead to a decrease in stability margins, and, possibly, to a loss of stability of the digital system. We show it on the example of a linear digital filter of the  $n$ -th order.

Let the processing of a continuous signal  $x(t)$  by a discrete sample  $x[k]$  is performed by a linear DF determined by  $z$ -transfer function of the following form:

$$D_0(z) = \frac{A(z^{-1})}{B(z^{-1})} = \frac{a_0 + a_1 z^{-1} + a_2 z^{-2} + \dots + a_{n-1} z^{-n+1} + a_n z^{-n}}{1 + b_1 z^{-1} + b_2 z^{-2} + b_3 z^{-3} + \dots + b_{n-1} z^{-n+1} + b_n z^{-n}}, \quad (1)$$

where  $z = e^{s \cdot T_0}$ ,  $s$  is the Laplace transform parameter,  $A(z^{-1})$ ,  $B(z^{-1})$  are the polynomials from  $z^{-1}$ , determined by a specific set of coefficients  $a_i$ ,  $b_i$ ,  $i=0..n$ . DF of the described type, operating at a frequency  $f_0 = 1/T_0$ , will be called the reference DF. The corresponding difference equation written with respect to the input  $y[k]$  and output  $x[k]$  of DF for the periods of time  $t = k \cdot T_0$  will take the following form:

$$x[k] = -b_1 \cdot x[k-1] - b_2 \cdot x[k-2] - \dots - b_n \cdot x[k-n] + a_0 \cdot y[k] + a_1 \cdot y[k-1] + \dots + a_{n-1} \cdot y[k-n+1] + a_n \cdot y[k-n]. \quad (2)$$

This difference equation defines one of the ways to implement DF in the form of an algorithm for calculating the output coordinate  $x[k]$  by past output  $x[k-i]$  and input  $y[k-i]$  values detainees, i.e. saved in memory at the previous steps of calculation. For fixed frequency  $f_0$  DF with  $z$ -transfer function (1) performs a certain transformation of the spectrum of a continuous signal, for example, it filters out low-frequency or high-frequency signal components or components of a certain frequency, corrects the phase characteristic, etc. (Antonio, 1983; Oppenheim & Schaffer, 2018). In this case, Fourier transform of the signal at the output of DF is determined by the following expression:

$$Y(e^{j \cdot \omega \cdot T_0}) = D_0(e^{j \cdot \omega \cdot T_0}) * X(e^{j \cdot \omega \cdot T_0}), \quad (3)$$

where  $X = (e^{j \cdot \omega \cdot T_0})$  is the sample conversion  $x[k]$  of continuous signal  $x(t)$ .

It should be noted that due to the specific properties of the transcendental function  $e^{j\omega T_0}$ , spectrum  $X(e^{j\omega T_0})$  of discrete signal  $x[k]$  is periodic with a period  $\omega_0(\text{radians/second}) = 2 \cdot \pi \cdot f_0$  (Shamrikov, 1985).

The samples are received not with the calculated interval  $T_0$ , but with a changed one:  $TN = T_0 \cdot N$ , where the parameter  $N$  determines the multiplicity of the change in the quantization period  $TN$  relative to the calculated period  $T_0$ . An important point is that the new quantization period  $T_0 \cdot N$  should also ensure the transmission of the properties of a continuous signal by discrete samples, which, according to the Nyquist–Shannon theorem, corresponds to the relation  $\omega_m < \frac{\pi}{T_0 \cdot N}$ , where  $\omega_m(\text{radians/second})$  is the maximum frequency present in the spectrum of a continuous signal. When changing the quantization period  $TN = T_0 \cdot N$ , the frequency response (FR) of DF will also change, which is determined by the following formula:

$$DN(j \cdot \omega, TN) = D_0(e^{j\omega \cdot T_0 \cdot N}) = \frac{A(e^{-j\omega \cdot T_0 \cdot N})}{B(e^{-j\omega \cdot T_0 \cdot N})}, \quad (4)$$

This FR has properties that differ from the properties of the reference filter: it is scaled along the frequency axis, and most importantly, it has a repetition period  $2\pi \cdot f_0/N$ , which is  $N$  times less (if  $N > 1$ ), or more than the original one. For this reason, to choose a "similar filter", i.e. some DF  $DN(z, T_0 \cdot N)$  of the same order, which would completely repeat the properties of the reference DF with a change in frequency  $f_0$  to  $fN = f_0/N$ , is impossible. With regard to the simplest DF of 1-2 orders of magnitude, a possible approximate approach for generating a conversion is given in (Belonogov, 2014; Kaplun et al., 2020).

In this paper, we pose the problem of calculating the algorithms for tuning the parameters of such a "similar" DF operating at the frequency  $fN$ , which would have closeness of its FR to the characteristics of the reference filter  $D_0(e^{j\omega T_0})$  in the baseband of a digital system:  $0 < \omega < \pi \cdot f_0/N$ .

The procedure should ensure the constancy of the dynamic characteristics of DF, while allowing the use of algorithms in the operational restructuring of DF parameters when the period  $T_0$  changes.

On the basis of studies carried out in the frequency domain using the methods of  $w$ -transformation, an algorithm for the operational restructuring of the numerical parameters of the filter based on information about the time intervals of information receipt has been developed. A method for calculating the restructuring of parameters based on the preliminary formation of a special recalculation matrix is proposed. At the stage of the filter operation in real time, this matrix implements the operational recalculation of the filter parameters by a linear relation. The proposed approaches make it possible to ensure the constancy of the frequency properties of the digital filter with high accuracy with a significant change in the periods of information receipt. At the same time, the implementation of the proposed approaches does not require significant computing resources and can be carried out on 8-16 bit microprocessor devices.

**Theoretical Basis**

We consider the change in the properties of the discrete filter  $D_0 \cdot (j \cdot \omega, T_0)$  in the frequency domain when the quantization frequency changes  $N$  times:  $fN = f_0/N$ , with constant numerical parameters.

It is known that a fairly good approximation of the transcendental FR  $D_0 \cdot (j \cdot \omega, T_0) = D_0(e^{j\omega \cdot T_0 \cdot N})$  in the discrete system in the low frequency range  $0 < \omega < 2 \cdot f_0$  give pseudo-frequency characteristics (Shamrikov, 1985) constructed as a function of the parameter  $\lambda = 2 \cdot f_0 \cdot tg \frac{\omega}{2 \cdot f_0}$ , where  $\lambda$  is the absolute pseudo-frequency practically coincides with the real frequency  $\omega$ , if  $\omega \rightarrow 0$ . We note that the parameter  $\lambda$  in some works on digital signal processing is described by the term "digital frequency". Further we consider the calculation of the parameters of such DF from the condition that the pseudo-frequency characteristics of the reference DF at a given quantization frequency  $f_0$  and pseudo-frequency characteristics of such a filter at a sampling frequency  $f_0/N$  were close within the specified range. Such a criterion can give a good coincidence of the characteristics of a similar filter and a reference filter in the real frequency band  $0 < \omega < \min(2/T_0, 2/T_0 \cdot N)$ . This follows from the fact that the absolute pseudo-frequency  $\lambda$  and real frequency  $\omega$  within the specified range are close enough. Using the transition to  $w$ -region, where  $w$  is the parameter of the bilinear transformation  $z = \frac{1+T_0 \cdot w/2}{1-T_0 \cdot w/2}$  (Shamrikov, 1985), and equating the characteristics

of the reference DF at the calculated frequency  $f_0$  and a similar DF at a changed frequency  $fN$  we will get the following:

$$D0\left(\frac{1+T_0 \cdot w/2}{1-T_0 \cdot w/2}, T0\right) = DN\left(\frac{1+T_0 \cdot \frac{N}{2} w}{1-T_0 \cdot \frac{N}{2} w}, T0 \cdot N\right), \quad (5)$$

whence we write the transfer function of similar a filter in  $w$  domain in the following form:

$$DN(w) = D0\left(\frac{1+T_0 \cdot \frac{w}{2}}{1-T_0 \cdot \frac{w}{2}}, T0\right) = \frac{A\left(\frac{1-T_0 \cdot w/2}{1+T_0 \cdot w/2}\right)}{B\left(\frac{1-T_0 \cdot w/2}{1+T_0 \cdot w/2}\right)}. \quad (6)$$

Using the transfer function  $DN(w)$  of a similar filter in  $w$  domain from (6), and applying the inverse  $w$ -transformation for the changed frequency  $fN$ , we pass to  $z$ -transfer function  $DN(z)$  of similar a filter, taking into account the changed frequency  $f_0/N$ :

$$DN(z, T0 \cdot N) = DN(w, T0 \cdot N) \text{ when replacing } w = \frac{2}{T0 \cdot N} \cdot \frac{z-1}{z+1}. \quad (7)$$

Let the reference DF be described by  $z$ -transfer function  $D0(z)$  of the form (1). Then from expression (6) after transformations we obtain  $DN(w)$  and, substituting the formula for the inverse  $w$ -transformation  $w = \frac{2 \cdot (z-1)}{T0 \cdot N \cdot (z+1)}$ , we will get the following:

$$DN(z) = \frac{a_0(z^{(N+1)+N-1})^n + a_1(z^{(N+1)+N-1})^{n-1}(z^{(N-1)+N+1}) + \dots + a_n(z^{(N-1)+N+1})^n}{(z^{(N+1)+N-1})^n + b_1(z^{(N+1)+N-1})^{n-1}(z^{(N-1)+N+1}) + \dots + b_n(z^{(N-1)+N+1})^n}, \quad (8)$$

To simplify the expression, we introduce the conversion parameter  $R = \frac{N-1}{N+1} = \frac{f_0-fN}{f_0+fN}$ , associated with a change in the quantization frequency ( $R=0$  at a constant frequency when  $fN=f_0$ ).

Taking into account the entered coefficient, dividing the numerator and denominator  $DN(z)$  on  $(N+1)^n \neq 0$  after algebraic transformations, we obtain  $z$  - the transfer function of similar a filter in the form of the ratio of polynomials  $AN(z^{-1})$  and  $BN(z^{-1})$ :

$$DN(z) = \frac{a_0 \cdot (1+R \cdot z^{-1})^n + a_1 \cdot (1+R \cdot z^{-1})^{n-1} \cdot (R+z^{-1}) + a_2 \cdot (1+R \cdot z^{-1})^{n-2} \cdot (R+z^{-1})^2 + \dots + a_n \cdot (R+z^{-1})^n}{(R+z^{-1})^n + b_1 \cdot (1+R \cdot z^{-1})^{n-1} \cdot (R+z^{-1}) + \dots + b_n \cdot (R+z^{-1})^n}, \quad (9)$$

where  $z = e^{j \cdot \omega \cdot T0 \cdot N}$ .

Formula (9) defines the way to calculate the coefficients  $\{aN_i, bN_j\}$  of  $z$  - transfer function of similar DF by coefficients  $\{a_i, b_j\}$  of the reference filter and the recalculation parameter  $R = \frac{N-1}{N+1}$  from the condition of closeness of their characteristics at absolute pseudo-frequencies. For an arbitrary order of DF we obtain from expression (9) rather cumbersome relations for determining the coefficients, which at a high order  $n$  of the filter will require complex calculations in real time for tuning. In this connection, let us further consider a computational algorithm for obtaining parameters of such a filter: numerator and denominator coefficients (9).

From expression (9) we obtain the algorithm for calculating polynomial coefficients  $AN(z^{-1})$  of numerator of the transfer function  $DN(z)$  of such a filter, using the representation of the polynomial in the form of Horner's method (Aho et al., 2000):

$$AN(z^{-1}) = [ \cdot [ [a_0] \cdot (1 + R \cdot z^{-1}) + a_1 \{ R + z^{-1} \} \cdot (1 + R \cdot z^{-1}) + a_2 \{ (R + z^{-1})^2 \} \cdot (1 + R \cdot z^{-1}) + a_3 \{ (R + z^{-1})^3 \} \cdot (1 + R \cdot z^{-1}) + \dots ] \cdot (1 + R \cdot z^{-1}) + a_n \{ (R + z^{-1})^n \} ], \quad (10)$$

The polynomial of the denominator  $BN(z)$  is similarly obtained for this purpose in formula (10) it is necessary to replace the coefficients  $a_i$  of the numerator polynomial by the coefficients  $b_i$ .

We denote the polynomials of degree  $j$  of  $z^{-1}$  in square brackets of expression (10) as  $M1(z^{-1}, j)$ , and the polynomials in curly brackets as  $M2(z^{-1}, j)$ . At the same time, the degree  $j$  of the polynomials  $M1$  and  $M2$  varies from 0 to  $n$ , and the elements of the polynomials are of degree  $z^{-1}$  with numerical coefficients.

Initial values of polynomials at  $j=0$  are defined as:

$$M2(z^{-1}, 0) = 1, M1(z^{-1}, 0) = a_0. \tag{11}$$

Subsequent polynomials of degree 1 to  $n$  from Horner's method are calculated using the recurrence formula:

$$M2(z^{-1}, j) = M2(z^{-1}, j - 1) \cdot (R + z^{-1}), \tag{12}$$

$$M1(z^{-1}, j) = M1(z^{-1}, j - 1) \cdot (1 + R \cdot z^{-1}) + a_j \cdot M2(z^{-1}, j), \tag{13}$$

Calculation of polynomials  $M1(z^{-1}, j)$  and  $M2(z^{-1}, j)$  ends at the step  $j=n$ , and the resulting polynomial  $M1(z^{-1}, n)$  corresponds exactly to the numerator  $AN(z^{-1})$  of  $z$ -transfer function  $DN(z)$  of similar a filter. Similarly we can calculate the polynomial  $BN(z^{-1})$ -denominator  $DN(z)$ , by changing in the algorithm (13) the coefficients of  $a_i$  to  $b_i$ .

Thus, according to the known polynomials  $A(z^{-1})$  and  $B(z^{-1})$  of  $z$ -transfer function  $D0(z)$  of the reference filter and the values of the actual quantization period  $TO \cdot N$ , or the polynomials can be calculated using the scaling parameter  $R$   $AN(z^{-1})$  and  $BN(z^{-1})$ , defining the numerator and denominator of  $z$ -transfer function  $DN(z)$  of such a filter. Due to the linear relation between the coefficients  $\{a_i, b_i\}$  of the reference filter and the coefficients  $\{aN_i, bN_i\}$  of similar a filter, it is convenient to represent this relation in the form of matrix relations:

$$AN = Q(R) \cdot A0, \tag{14}$$

$$BN = Q(R) \cdot B0, \tag{15}$$

where  $A0, B0$  are the  $(n+1)$ -dimensional parameter vectors  $\{a_j\}, \{b_j\}$  of DF reference,  $AN$  and  $BN$  are the  $(n+1)$ -dimensional parameter vectors  $\{aN_j\}, \{bN_j\}$  of a similar DF,  $Q(R) - (n + 1) \times (n + 1)$  is the transformation matrix. It is characteristic that the elements of the matrix  $Q(R)$  transformations have, for a given order  $n$ , a constant structure and depend only on the parameter  $R$ . These elements are polynomials of degree  $R$ , they are not higher than  $n$ , and the coefficients of these polynomials, integers, are binomial coefficients and depend only on the order  $n$  of the filter. Thus, for the second-order filter example ( $n=2$ ), calculating by formula (10), we obtain:

$$AN(z^{-1}) = (a_0 + R \cdot a_1 + R^2 \cdot a_2) + (2Ra_0 + (R^2 + 1) \cdot a_1 + 2R \cdot a_2) \cdot z^{-1} + (R^2 a_0 + R \cdot a_1 + a_2) \cdot z^{-2}, \tag{16}$$

whence the scaling matrix  $Q(R)$  is defined by the following expression:

$$Q(R) = \begin{bmatrix} 1 & R & R^2 \\ 2 \cdot R & R^2 + 1 & 2 \cdot R \\ R^2 & R & 1 \end{bmatrix}, \tag{17}$$

### Methodology

As it was shown above, to ensure the constancy of DF characteristics when the quantization frequency changes, it is necessary in the process of filter operation to carry out the tuning, based on the recalculation of DF parameters. We consider the possible logic of such a tunable filter and the method of its calculation. At the same time, we take into account that the structure of the matrix  $Q(R)$  depends only on the order of the digital filter, and the numerical parameters, the elements of the matrix, depend on the specific values of  $R$ .

Due to the fact that the matrix  $Q(R)$  depends only on the degrees of the parameter  $R$ , it is convenient to represent this transformation matrix in the form of decomposition:

$$Q(R) = q0 + q1 \cdot R + q2 \cdot R^2 + \dots + qn \cdot R^n, \tag{18}$$

where  $qJ (J = 0..n) - (n + 1) \times (n + 1)$  are the matrices, the elements of which are integers, defined by products and sums of binomial coefficients.

Taking into account the decomposition (18), the parameters  $\{aN_j\}, \{bN_j\}$  of a similar filter from formula (13) is determined by the following expression:

$$AN = q0 \cdot A0 + q1 \cdot A0 \cdot R + q2 \cdot A0 \cdot R^2 + \dots + qn \cdot A0 \cdot R^n, \quad (19)$$

$$BN = q0 \cdot B0 + q1 \cdot B0 \cdot R + q2 \cdot B0 \cdot R^2 + \dots + qn \cdot B0 \cdot R^n, \quad (20)$$

In the formulas (19)  $qJ \cdot A0$  and  $qJ \cdot B0 - (n + 1)$  – dimensional vectors, their components are known in advance, because they depend on the parameters  $\{a_j\}, \{b_j\}$  of the reference DF and elements of constant matrices  $qJ (J = 0..n)$ .

Thus, to recalculate the parameters of DF when changing the quantization period it is enough to  $2 \cdot (n + 1)$  multiplications of known vectors  $qJ \cdot A0$  and  $qJ \cdot B0 (J = 0..n)$ , placed in memory for different degrees of the current recalculation parameter  $R^J$  and  $2 \cdot n$  additions of the obtained products according to the ratios (18).

Thus, for the above example of a second-order DF we obtain:

$$Q(R) = q0 + q1 \cdot R + q2 \cdot R^2, \quad (21)$$

$$Q(R) = \begin{bmatrix} 1 & R & R^2 \\ 2 \cdot R & R^2 + 1 & 2 \cdot R \\ R^2 & R & 1 \end{bmatrix}, \quad (22)$$

$$q0 = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}, \quad (23)$$

$$q1 = \begin{bmatrix} 0 & 1 & 0 \\ 2 & 0 & 2 \\ 0 & 1 & 0 \end{bmatrix}, \quad (24)$$

$$q2 = \begin{bmatrix} 0 & 0 & 1 \\ 0 & 1 & 0 \\ 1 & 0 & 0 \end{bmatrix}, \quad (25)$$

$$q0 \cdot A0 = \begin{bmatrix} a_0 \\ a_1 \\ a_2 \end{bmatrix}, \quad (26)$$

$$q1 \cdot A0 = \begin{bmatrix} a_1 \\ 2 \cdot a_0 + 2 \cdot a_2 \\ a_1 \end{bmatrix}, \quad (27)$$

$$q2 \cdot A0 = \begin{bmatrix} a_2 \\ a_1 \\ a_0 \end{bmatrix}. \quad (28)$$

We use the assumption that the period of incoming data can change significantly during operation, but such changes are episodic and the filter basically works in quasistationary mode with a constant step of sampling  $TN = T0 \cdot N$  and constant parameters. Besides, from practical considerations it is clear that at small enough change of sampling rate  $|f0 - fn| < eps$ , ( $eps$  is a small value) due to the continuity of the parameters does not require.

It is assumed, that parameters  $A0$  and  $B0$  of the reference filter are calculated beforehand, and the filter is realized in the form of the program of calculations, similar to (2), for the digital calculator. In this case, the

organization of the restructuring is proposed to be carried out at the preliminary stage (labor-intensive operations), and directly in the process (in real time).

Pre-calculation stage:

1. to determine the threshold  $\epsilon_{ps}$  value of the frequency change  $f_0-fN$ , above which the filter parameters must be rebuilt;
2. to calculate the constants  $(n + 1) \times (n + 1)$  - dimensional matrices  $q_0, q_1, \dots, q_n$ , determining the recalculation matrix, and place them in memory, for which: to calculate the recalculation matrix  $Q(R)$  from (13) as a function of the parameter  $R$  using the computational algorithm from (7), to get matrices  $qJ$  - decomposition components  $Q(R)$  from (10) and to write them into the memory block  $- 2 \cdot n^2 \cdot (n + 1)$  integers;
3. to write parameters  $A_0, B_0$  of the reference filter to RAM  $- 2 \cdot (n + 1)$  real numbers;
4. to calculate  $2 \cdot (n + 1), (n + 1)$  -dimensional matrices  $qj \cdot A_0$  and  $qj \cdot B_0$  required for recalculation of parameters by formulas (19,20), place them in the filter memory.

Real-time filter operation:

1. to make episodic measurements of the frequency of incoming information  $fN$ ;
2. if the frequency change threshold is exceeded:  $|fN-f_0| > \epsilon_{ps}$ , to make a quick recalculation of the filter parameters, to do this:
  - a. to calculate the current recalculation parameters  $R = \frac{(f_0-fN)}{(f_0+fN)}, R^2, \dots, R^n$ ;
  - b. to calculate the parameters  $aN_i, bN_i$  of similar filter for specific values of the parameter  $R$  and its degrees, using formulas (19,20), and vectors  $qj \cdot A_0$  and  $qj \cdot B_0$ , placed in the filter memory in the preliminary stages;
  - c. to carry out a realignment and to use the calculated parameters  $aN_i, bN_i$  in the current operation of DF.

Further, the parameters  $aN_i, bN_i$  and the current frequency  $fN$  can be used as reference parameters  $a_i, b_i$ , and  $fN$  is  $f_0$  and then we go to the step 3.

In the above procedure only items 5 and 6 are performed in real time, i.e. the realignment requires a single execution of uncomplicated and fully defined multiple arithmetic operations of multiplication and addition, while the main time-consuming operations are performed at the calculation stage.

## Results

Thus, an algorithm for the operational restructuring of the numerical parameters of the filter based on information about the time intervals of information receipt has been developed. Such a restructuring makes it possible to ensure the constancy of the frequency characteristics of the digital filter with a significant change in the time periods  $TN=TO \cdot N$  of information receipt and is implemented by simple computational operations.

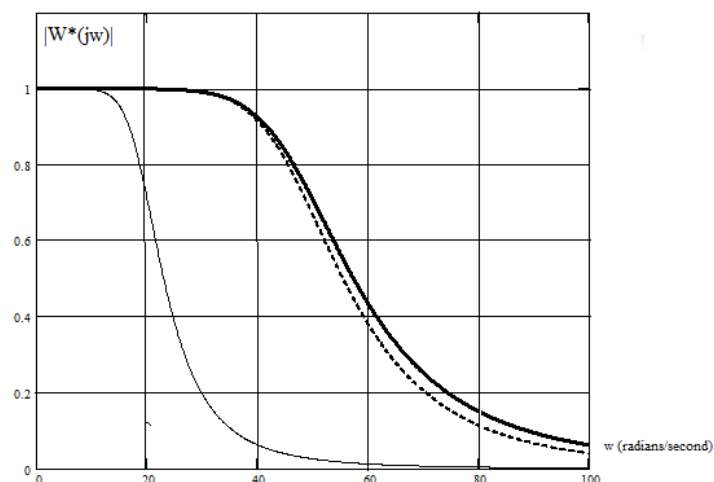
A technique for implementing the developed recalculation algorithm is proposed, which uses the most cumbersome calculations at the preliminary calculation stage, and during real-time it uses restructuring, performs only single arithmetic calculations with numbers placed in the device's memory.

The developed proposals can be used for an arbitrary order of digital filters, while changing the frequency  $fN$  of information receipt within a wide range.

The approaches proposed in the work for organizing the restructuring of the parameters of DF were tested on a model example of a fourth-order filter. At the same time, preliminary calculations of the conversion matrices and operational calculations in real time were carried out with a limited calculation accuracy corresponding to 8 binary digits. The change in the quantization period  $TO$  corresponded to the range of change in the parameter  $N=0.3-3$ , with a corresponding change in the parameter  $R$ .

Figure 1 shows the frequency characteristics of the fourth-order low-frequency DF that implements the Butterworth distribution (Oppenheim & Schaffer, 2018; Jing et al., 2019). Here, the solid thick line defines

FR of the reference filter at the calculated frequency  $f_0$ , the thin line is the response when the quantization frequency  $fN$  changes ( $N=2.5$ ), the dashed line illustrates the response of a similar (tuned) filter. As can be seen from the Figure 1, when changing the step of discreteness of data receipt without restructuring the parameters, the transformation characteristics change significantly. The use of tuning the filter parameters makes it possible to ensure the practical constancy of DF characteristics with a significant change in the quantization frequency, which confirms the validity and prospects of using the developed approaches to ensure the constancy of DF properties when changing the time parameters of the data arrival.



**Figure 1.** Amplitude-frequency characteristics of DF

A possible specific technical implementation of the described approaches is implemented in a digital device according to patent No. 2631976, described in (Belonogov, 2017; Dimc et al., 2017).

## Conclusions

Based on the research presented in the work, the following provisions can be formulated.

- changing the frequency  $fN$  of DF information arrival relative to the calculated frequency  $f_0$  with its fixed parameters can significantly worsen the required signal processing properties, and when using the results of DF in a closed loop, significantly degrade the system quality indicators.
- technique and a computational procedure have been developed that form the law of rearrangement of the parameters of DF when changing the intervals of information arrival, relative to the calculated values of  $T_0$ . This procedure is used at the stage of calculating the system, and simplified arithmetic algorithms adjust the parameters in real time only when the frequency  $fN-f_0$  changes, exceeding the pre-calculated threshold.
- use of tuning the values of DF parameters to ensure the closeness of the filter characteristics to the characteristics of the reference filter operating at the initial frequency  $f_0$ , allows maintaining the comparative constancy of the filter characteristics with significant changes in the period  $T_0$  of data arrival. At the same time, the algorithms for DF and tuning DF parameters are compact and can be easily implemented on the simplest microprocessor devices.

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## Information-communication policy of the state in crisis conditions. Current state, problems, prospects

### Інформаційно-комунікаційна політика держави в кризових умовах. Сучасний стан, проблеми, перспективи

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#### Abstract

Effective democracy requires effective mechanisms for society to influence public authorities. Interaction between government and citizens, active public participation in decision-making is the key to sustainable development, prosperity, and stability of state institutions, social programs, and economic growth. Political leadership and effective communication of the action plan to the public promote public order and security. In this paper, we explore the current state of information policy in a crisis. We used general scientific and special methods such as historical and philosophical, systemic, comparative. In the first part, we consider philosophical approaches to the concept of communication and the role of the state in shaping information policy. The second and third parts are devoted to specific examples of such policies within two countries: Ukraine and Azerbaijan. In conclusion, we argue that there are currently complex challenges for the information policy of both countries. This is especially true of health problems caused by the coronavirus pandemic and armed conflict. Differences in the prospects of regulating the information field of the two countries are caused by economic factors and political conditions. The ways of information society development on the example of each of the countries are considered.

**Keywords:** information and communication

#### Анотація

Для ефективної демократії обов'язкова наявність дієвих механізмів впливу суспільства на органи державної влади. Взаємодія між владою та громадянами, активна участь громадськості в прийнятті рішень є запорукою сталого розвитку, добробуту та стабільності державних інституцій, соціальних програм та економічного зростання. Політичне лідерство та ефективне доведення плану дій до публіки сприяє громадському порядку та безпеці. У цій роботі ми досліджуємо актуальний стан інформаційної політики в кризових умовах. Ми використали загальний науковий та спеціальні методи такі як історико-філософський, системний, компаративний. У першій частині ми розглядаємо філософські підходи до поняття комунікації та ролі держави у формуванні інформаційної політики. Друга та третя частини присвячені конкретним прикладам такої політики в рамках двох країн: України та Азербайджану. Як висновок, ми стверджуємо, що нині існують комплексні виклики для інформаційної політики обох держав. У першу чергу, це стосується проблем охорони здоров'я, викликаних пандемією коронавірусу та збройними конфліктами. Відмінності в перспективах регулювання інформаційного поля двох країн викликані економічними факторами та політичною

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policy, crisis conditions, communication, information field, information society.

кон'юнктурою. Розглянуто шляхи розвитку інформаційного суспільства на прикладі кожної з країн.

**Ключові слова:** інформаційно-комунікаційна політика, кризові умови, комунікація, інформаційне поле, інформаційне суспільство.

## Introduction

In modern conditions, the rapid dissemination of information draws close attention of society and the scientific community to the impact of communication technologies on the social and political life of different countries (Shah, 2016). This is especially true for democracies and states moving in this direction, where the political process is developing dynamically, and effective communication between government and society is critical (McCombs, Shaw & Weaver, 2013; Voronyansky, 2014).

The political process of democracies involves various institutions of power, as well as civil society (Bowler & Donovan, 2002; Komzyuk & Panchuk, 2003). One of the main characteristics of the political process is the power struggle, and here it is equally important to communicate competently with their constituents and like-minded people, not to allow in their rhetoric things that could negatively affect reputation, etc. (van Dijk, 2008; Morska, 2019). But this is especially true of political leaders. Concerning state institutions, everything is somewhat more complicated, as they already have power in their hands and are responsible for the welfare and lives of citizens, the effective implementation of their functions under the law (Nyzhnyk, 2007). In times of crisis, all eyes are on them, because the algorithm of citizens' actions, in particular, in conditions of danger, depends on how they will communicate. Transparency and accessibility of information are just some of the signs of effective public information policy (Obushna, 2015; Malinina, 2021). Subject to detailed development, it has the appropriate principles, priorities, strategy, and mechanisms for its implementation, which are enshrined in the relevant documents, which can be read by any citizen (Kushnir, 2015).

In this article, we focus on the theoretical aspects of information and communication policy of states, in particular, Ukraine and Azerbaijan, in crisis conditions, which include economic difficulties, pandemic coronavirus, armed conflicts, etc., to establish the main features and characteristics of the subject, modern the state of

state information and communication policy, its problems, and prospects for development.

## Theoretical Framework or Literature Review

Political communication, the information society, the interaction of government and citizens through the media are in the lens of research in various disciplines of humanities such as political science, sociology, linguistics, social philosophy. There are various theoretical approaches to understanding the role of public policy in regulating the information environment.

For example, Bowler & Donovan (2002) explored the role of civic participation in the development of democracy. The authors conclude that political activism and pluralism of opinion, as well as feedback in the interaction of government and society, will continue to be key factors for the stability of democratic governance.

According to Habermas (2006), indirect political communication in the public sphere can facilitate the process of legitimation debate in complex societies only if the self-regulating media system gains independence from its social environment and if an anonymous audience provides feedback between informed elite discourse and sensitive civic society.

Tokarska (2008), in her dissertation, points out that communication is the basis of legal interaction, as law relates to social relations, which are expressed in the interaction between people. At the same time, communication is subject to regulation and moderated in every possible way by the legislature. According to the study, future directions of research should relate to the development of an integrated approach within the postclassical theory of legal communication, which involves a synthesis of the best achievements of different approaches to the regulatory function of communicative law. Tairov (2010), in his dissertation, points out that the introduction of effective communication

practices reduces the need for the media as intermediaries between government and citizens. The author concludes that the latest communicative policy of the state is based on the principles of the post-industrial philosophy of public administration, so communication is the basis of public administration and the main lever of formation and influence on democratization. Niyazov (2013, 2016, 2017) pays great attention to the prospects of forming an information society in Azerbaijan. In his work, the author demonstrates the achievements and challenges facing the country's leadership in the globalization process, as well as the growing demand of the population for access to information.

Voronkova & Oleksenko (2020) believe that public administration is an effective public regulator only when it is opposed by public control. The authors see this as the main safeguard against the distortion of the rule of law.

### Methodology

We used the general scientific method and special ones such as systemic, historical-philosophical, and comparative.

With the help of the system method, it was possible to demonstrate the interaction of various features of the concept of communication, as well as to consider the information policy of the state as a system of measures aimed at implementing freedom of information, press, regulation of public relations in this area. Accordingly, information and communication policy consists not only of legislative regulation but also implies technologies that will implement the relevant legislative priorities. For example, information technology infrastructure plays a meaningful role in the process of informatization of society, and the implementation of government programs to improve digital or media literacy is complicated without access to specific information technologies. Thus, considering all the factors together using the system method, it was found that the state information and communication policy is influenced by many factors such as economic situation, access of citizens to IT-infrastructure, political situation, the availability of developed media, professional journalism, demand for quality, scientifically verified information, information culture of the population, etc., which is a system of interconnected elements, which due to mutual influence are formed as an information and communication policy of the state.

Using the historical and philosophical method, we traced the development of ideas about the concept of communication and its role in public administration. Starting with the ideas of ancient Greek thinkers about the goals and objectives of the state, we considered the ideas of other philosophers in the field of social philosophy, philosophical anthropology, and philosophy of language.

Using a comparative method, it was possible to consider the characteristics of communication policy in Azerbaijan and Ukraine. The main obstacles to the development of the information society were identified, changes in the political climate of each country under the influence of the crisis were identified and ways to respond to them were identified. Based on the comparative method, as well as with the help of synthesis techniques, recommendations are given and prospects for improving the information and communication sector are outlined.

### Results

#### *Philosophical basis of communication theory*

Reflections on the role of public policy are rooted in antiquity. Depictions of the symbiosis of the state and the citizen can be found in the works of ancient Greek thinkers such as Plato (2021) and Aristotle (2021). Among the original ideas, they indicate not only what are the responsibilities of the citizen in society, but also the functions of the state, the purpose of its existence. In his reflections on the state in the work "Republic", Plato (2021) points out that in the ideal state, which he imagined, virtues prevail, the most important of which is justice. This view corresponds to what is now interpreted as objective idealism, because the essence of things for Plato exists as an ideal category, in itself. In this sense, citizens, to be exemplary, should strive to be embodied in the ideal, subordinating their activities to moral principles. It should be remarked that there are methodological difficulties in reading Plato's works due to the peculiarities of the form and style of writing dialogues (Kraut, 2014). Most likely, the primary purpose of Socrates' mayevtics, which is depicted in them, serves as teaching only at a basic level. If the reader wants to better understand the text or set himself a difficult task – to understand what the author meant, then the dialogues become a work on themselves, as each statement and answer must be integrated into their own experience of thinking about the issues raised. As for those who were to rule the ideal

state, this privilege should be enjoyed by noblemen who are philosophers.

Concerning information policy, as we now imagine it, from the works of Plato (2021) it is clear that communication within his ideal state must also be subject to the common good, therefore, the performance of musical works that promote it should be encouraged, and things like poetry since it does not serve the common good, there is no place in the state.

From a philosophical point of view, communication is a wide field for interpretation. For example, from a dialectical point of view, communication can equally be considered as a dialogue of the soul with the soul of another, as an exchange of information, as an intellectual duel, as being in the information sphere, etc. After the so-called "Linguistic turn" in philosophy, which is associated with the works of Austrian-British philosopher Ludwig Wittgenstein (2017), communication was placed in a strong framework of analytical approach, which, for her research, required a clear definition of concepts to be considered, to avoid logical errors. Thus, in the context of analytical philosophy, which has been developing since the first half of the twentieth century, the study of communication has received an almost mathematically rigorous methodology (Nerubasskaya, Sarnavskaya & Palshkov, 2021), the common good, without the attention of the study, focusing on the social nature of communication, the roles of the addressee and the addressee, the content of speech, discourse analysis, etc.

Communication is a key element for receiving and transmitting values, customs, traditions. Beliefs were also formed not only through mystical enlightenment, something that is a purely subjective experience, but also through their explanations and interpretations, which helped to understand and accept the specific worldview of other people. Thus, communication is an exchange of ideas.

However, there is a debate about the role of the individual and the public in communication. For example, can it be said that in a dictatorship the agenda is formed according to the will of one person? Doesn't totalitarian discourse have as its cause the corresponding wishes of citizens, who only in time understand what a terrible mistake they made in bringing despotic power to power? Such questions involve a discussion of the role of the individual in history or the role of society in

shaping the individual, which is always interrelated issue.

Separation, the estrangement of the individual from society, in turn, is a separate subject of philosophical studies. For example, the conditionality of such a distinction is not obvious in Buddhism, because, according to the concept of anatman and shunyata, ie, the absence of the soul as something substantial (anatman, literally an – absence, atman – soul) and emptiness dharma (shunyata – emptiness), discourse individual, however, as well as collective, becomes impractical (Xu, 2020). Another typical example of the distinction between the individual and the social is Noam Chomsky's discussion with Michel Foucault, who, while belonging to the leftist spectrum of political ideas, differ in their understanding of the role of the individual in history. to the power of the personal in their arguments, for example, that associations (syndicates) of free people are possible only based on voluntary choice and a personal desire for peaceful and creative, fruitful coexistence (Chomsky & Foucault, 2015).

The approach to communication as a cultural heritage that is passed down from generation to generation exists in the biological sciences. According to this approach, man as a being who has a culture, or rather exists in a cultural environment, in addition to the biological determinants of their behavior, learns to communicate and pass this knowledge on. The roots of this idea can be found in the writings of Aristotle, who argued that man is a political being, therefore, at a certain stage of community formation is a predictable result of the realization of man's nature. This idea is a source of inspiration for the study of communication in the framework of philosophical anthropology and social philosophy (Canfield, 1993). For example, Gehlen (1952) noted that, as a result of reflection on one's own thoughts, a person began to use language to convey his thoughts to others. In the works of Scheler (2010, 2012), communication is inherent in the individual as a social being that exists within the social framework, so its existence is possible through social acts, which are based on interaction with other actors in society. These studies provide knowledge about how a person transforms his or her own subjective experience into a form of information transmission that is language. The culture here is a major factor for the transmission of such knowledge to future generations. From this point of view, the social is more important than the personal, because only participation in active social life and the development of a particular

culture serves to realize the potential of the individual. Thus, communication pursues both the exchange of information and self-expression (realization, representation). From an individual point of view, it can be reduced to the benefits of communication. Pleasure in this sense is also a benefit. From this point of view, effective communication means being useful to each other. The obvious psychological consequence of this is that we do not seek communication that is of no use or unpleasant. This is the rational position of Benedict Spinoza, who argued that human happiness is what pleases him. He used pleasure as an indicator of happiness and other ethical issues, as opposed to dissatisfaction, which causes pain, sadness, anger, and hatred. The peculiarity of this approach, which he uses in his work "Ethics", is to reduce definitions to clear formulations and prove statements using a "geometric" method, which implies the existence of axioms, derivation of theorems, and their proof. His "Ethics", in fact, is built with the help of such semantic oppositions. It should be noted that satisfaction is not limited to the individual, because the abuse of their interests in violation of the rights and interests of others, according to Spinoza, is irrational, and, therefore, ethically unacceptable.

Communication as a manifestation of the love of neighbor and being in the world can be found in the works of Thomas Aquinas (2017). Such communication is based on freedom of choice and religion (1a2ae, 105.2 and ad 3). Thus, human interaction should promote unity in the love of God as the ultimate public good, which is at the same time the foundation of all communication.

In the works of the American logician Charles Sanders Peirce, the idea of prime communicative mode appears, the exit to which is a condition for effective communication that generates understanding (Lu, 2019). The first analogy that arises in this regard, since Peirce was a theorist of the pragmatism of semiotics, is the common understanding of sign systems by communication participants to extract the meaning of these symbols (Webb, 2007). In his ideas about cognition, Peirce pointed out that the thirst for truth is more about overcoming the discomfort that arises from differences of belief and facts. According to this principle, communication is also a way to a common denominator, which is mutual understanding, similar to how knowledge is acquired.

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### ***Ukrainian realities of information and communication policy in crisis conditions***

The central problems of information policy in Ukraine are communication between the government and society, counteraction to Russian aggression and misinformation, distrust of citizens in government institutions, the negative international image of the state in some aspects, such as corruption, taxation, bureaucracy, and bureaucracy.

The coronavirus epidemic was a significant test for the state. In 2020, Ukrainians began to listen more to relatives, friends, and regional media (USAID-Internews, 2020). The most considerable consumption of information occurred in the first wave of the epidemic, which took place in Ukraine in March-April 2020. An illustrative case is the return of Ukrainian citizens from China, which turned into a scandal and clashes with residents of the village. New Sanjars, who welcomed their compatriots. At that time, the situation was not limited to panic. The factor of influence was poor communication from the authorities, which failed to take appropriate measures to contain the situation (Panchenko, 2020). Among the positive aspects of the government's response to the pandemic was the provision of information by the Ministry of Health through official social media accounts and the official website on the coronavirus situation, availability of vaccines, guidelines, answers to questions, etc. (Krynychko & Motaylo, 2021). The Action application has also helped reduce efforts to obtain information and administrative services related to the coronavirus situation.

The balance of trust in higher authorities such as the President, government, parliament, in general in 2020 was unfavorable. At the end of the year, 34% of respondents trusted the head of state, and

16% trusted the government (KIIS, 2021). In 2021, 33% trusted President Zelensky, and at the end of the year – 27% of respondents (Razumkov Center, 2021; KIIS, 2022). If trends continue, there is reason to believe that at some point in the future the situation will return to 14% of confidence in the President and 9% - in the government, as it was in 2019 before the change of power in the country (Bikus, 2019). However, it cannot be said that good communication will have a significant impact on government ratings, as it is primarily due to objective factors such as war, pandemic, economic problems, inflation, and, moreover, the diversity of voters' expectations at the time of her election (Nekrecha, 2020).

### ***Information policy of the Republic of Azerbaijan***

Ukraine (2020) considers Azerbaijan as its strategic partner. Both countries cooperate in the field of economy, develop trade relations, exchange knowledge and technology.

According to Niyazov (2016) in his study, the main problem of Azerbaijan's information policy is the formation of an open information society. Increasing the media literacy of the population plays an essential role in this. According to the researcher, the information policy of the state should have such characteristics as systemic, integrity, scientificity, unity of quantitative and qualitative features.

The information policy of the state can be understood as a set of measures aimed at ensuring the constitutional right of citizens to receive information and freedom of expression, as well as ensuring freedom of speech, press (media) (Niyazov, 2016). Article 50 of the Constitution of the Republic of Azerbaijan proclaims freedom of information and the prohibition of censorship, provided that public order and morals are not violated (Law No. 1995, 1995). Informatization of society was one of the priorities of the previous President of the Republic – Heydar Aliyev, and his son – the current head of state – Ilham, is developing a legal framework for the information and communication system of Azerbaijan (Rahimov, 2008; Niyazov, 2013).

Currently, the activities of the media in Azerbaijan perform a noteworthy security and communication function, informing the public about the actions, goals, and priorities of the government (Həsənli, 2017). Niyazov (2016) notes that the formation of information policy

depends on the political system of Azerbaijan, and can be divided into such areas as military, economic, social, cultural, sports information policy, which is to reflect a specific aspect of life and communication between government and society within this aspect. Azerbaijan's information policy promotes the protection of state interests, performs a regulatory function in the media space (Aliyeva & Hwang, 2019). For the formation of the information society, the priority of public policy is to ensure public access to communication technologies (Niyazov, 2017). With the expansion of the economic sector, the demand for information content is growing, as a result of which the private sector of the economy is actively involved in the creation and exchange of information that is in demand, in particular, educational and entertainment. The Azerbaijani media is a full participant in the governance process, participating in the formation of public opinion (Niyazov, 2016). The executive branch supports the media market.

In their study, Sidorenko & Geybullayeva (2010) pointed out that among the countries of the South Caucasus, Azerbaijan is the leader in Internet coverage. Government websites and online services are being developed, and young people have been able to take advantage of digital opportunities. However, the improvement of information and communication infrastructure remained an important task, in particular, to increase network access, data transfer speed, and the cost of Internet services.

Foreign studies point to problems in building a transparent information society in Azerbaijan (Gahramanova, 2009). According to Pearce & Kendzior (2012), the emergence of social networks has benefited the central government, which has allowed the political opposition in the form of activists to become more visible and accessible to its bodies. In their study, the authors draw attention to the harassment of dissidents on the Internet and obstacles to expressing the opposition's political position in Azerbaijan. However, regarding the participation of citizens in other non-political topics on the Internet, the situation is optimistic, allowing people to represent themselves on the Internet and interact with other people, receive information, blog, start a business, etc. (Pearce, 2014; Pearce, Freelon & Kendzior, 2014).

Following the victory in the campaign to liberate Nagorno-Karabakh, President Ilham Aliyev enjoys the overwhelming support of the people of Azerbaijan (Synowitz, 2020). It is possible that he can use his mandate for democratic

transit, as his popularity will be enough to win the next election against any of the candidates. From this point of view, the interaction between the authorities and the media in Azerbaijan may also get a chance for significant liberalization.

### Discussion

In the context of the spread of coronavirus disease, a promising area of communication between the government and society is to inform citizens in advance about the measures that will be used to limit the spread of the virus, so that people can prepare. The sudden cancellation of entry and exit, for example, when passengers have booked tickets, leads to stress and tension in society, which has a negative impact on attitudes towards government and in everyday life. Therefore, warning in advance about restrictive measures in times of crisis is the recommended way to communicate effectively. In this regard, the authorities must have appropriate protocols to be applied in the event of an emergency. To apply an effective personal approach to solving the problems of citizens in crises, there must be communication channels to which they can turn to solve their special problems, such as chatbots in messengers, hotlines, an early warning system for interaction with the authorities. As this is due to the allocation of additional funds for such infrastructure, this entails considering the sources of funding for such individual support programs. In addition, recruiters will need funding to seek professional support. In addition to emergency assistance in crisis situations related to the restrictions caused by the coronavirus epidemic, it is worth paying attention to the support of citizens in other areas. In this sense, the application "Diya" of the Ministry of Digital Transformation of Ukraine is a positive asset, as it creates opportunities for administrative services in digital form, which reduces red tape, corruption risks, saves time and effort of citizens. However, expanding state support requires other social programs, such as mental health, which is threatened by stressful conditions such as the coronavirus epidemic or armed conflict, which in the situation with Ukraine is combined with social and economic challenges such as energy crisis and inflation. We should also take into account the shortcomings of existing e-government procedures (Bychenko, 2022). A serious study should be conducted to increase citizens' trust in government institutions. As the root of this problem has a historical basis, it is a serious and ambitious task that requires several factors to be addressed to reduce the imbalance of trust. Due to critical, pathological distrust of citizens,

measures to counter the epidemic, such as vaccination, remain ineffective, as, in particular, citizens do not trust vaccines purchased at public expense, as well as information campaigns to promote vaccination. The same applies to state communication with the population in other crisis situations because when a person is biased and skeptical of any messages from the authorities, looking for hidden threats and deception, it makes any communication ineffective precisely because of the primary lack of trust in public administration institutions. To begin with, consider the civil society institutions that the population trusts the most. For example, the army, volunteers, the church. We can work on strengthening and disseminating their positive image in general and on institutions of public administration in particular. Demonstrating support for institutions that have the trust of society can have a positive effect on the solidarity of society. However, we emphasize that serious research should be conducted in this direction, as it concerns a complex problem that has historical, social, economic, and psychological dimensions, so it will be difficult to achieve a clear effective solution to the problem of public trust immediately.

In crisis situations, the role of solving problems on the ground is growing, so regional media must have sufficient support to effectively inform citizens. Establishing cooperation and direct communication between central and regional authorities is a key factor in this regard.

### Conclusions

We see that the current challenges that affect the government's discourse and policies are the coronavirus pandemic, as well as armed conflicts in some countries. In the case of the coronavirus pandemic, the negative impact on most spheres of life was objective and global, which led to the transfer of communication between the government and society in an emergency format of crisis communication, which involves briefly informing the public about changes in sources of information.

In this regard, communication problems were primarily related to the inability of the authorities to respond to public information requests and to counteract the dissemination of false, unverified information. This is especially true in countries where there is armed conflict. Further work should be done to optimize information and communication policy in these countries, which have faced unprecedented crisis factors on the way to their development.



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## Formation of romantic instrumental performance and violin art of Niccolo Paganini

### Становлення романтичного інструментального виконавства і концертно-віртуозна творчість Н. Паганіні

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#### Abstract

The article analyzes the features of formation of instrumental performance of the romantic period and the main factors of this process revealed on the example of Niccolo Paganini's violin work. The methodological basis of the article is a comprehensive review based on historical-theoretical and music-performing approaches to the research of the stated problems. The main methods of work are historical-comparative, structural-functional and theoretical generalization.

The main principles of performance and repertoire of the Italian violinist are determined. The influence of the Italian maestro on the performing arts of prominent representatives of musical romanticism – H. Berlioz, K. Lipinsky, F. Liszt, F. Chopin, R. Schumann and others – is defined.

**Keywords:** instrumental art, romanticism, concert-virtuoso culture, violin creativity of N. Paganini, performing technology.

#### Анотація

У статті проаналізовано особливості формування інструментального виконавства періоду романтизму та основні чинники цього процесу, виявлені на прикладі скрипкової творчості Нікколо Паганіні. Методологічною основою статті є комплексний огляд на основі історико-теоретичного та музично-виконавського підходів до дослідження викладених проблем. Основними методами роботи є історико-порівняльний, структурно-функціональний та теоретичне узагальнення. Визначено основні принципи виконання та репертуару італійського скрипаля. Визначено вплив італійського маестро на виконавське мистецтво видатних представників музичного романтизму – Г. Берліоза, К. Ліпінського, Ф. Ліста, Ф. Шопена, Р. Шумана та інших.

**Ключові слова:** інструментальне мистецтво, романтизм, концертно-віртуозна культура, скрипкова творчість Н. Паганіні, виконавська техніка.

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## Introduction

At the end of the 18th and the beginning of the 19th century, European musical art underwent a change of artistic views and thinking due to the stylistic situation of the transition from classicism to romanticism. This was largely due to the rapid development of instrumentation at this time: the establishment of a group of violins, the spread and improvement of piano and wind instruments, which opened up new great opportunities for technical and color solutions in instrumental compositions. All this had a cardinal effect on the practice of performance, which in the 18th century had the character of mostly home or court music, and from the beginning of the 19th century began to relentlessly go to the «glorious» stage.

During the 18th century, the life of the concern was subordinated and depended on various institutions (retirement funds, churches, music centers of aristocrats, private theaters, etc.), which organized and financed concert-theater or festival events. They were often attended by court musicians, which was an indicator of a high professional level. Of course, the customers chose the performers and repertoire by themselves. By the beginning of the 19th century, the situation was gradually changing due to the spread of charitable public concerts organized by patrons or amateur societies, holders of aristocratic salons, and others. The fertile ground for the development of concert activities and performances of young performers was the audience's fascination with virtuoso art, its thirst for technical innovations and performance effects.

The stylistic dualism of musical art, due to the active entry of romanticism into the cultural and artistic space of the day, also contributed to the spread of concert activity of touring virtuosos, with its conditional division into chamber and concert. The concept of «romanticism» was formed from the epithet «romantic», which indicated some features of literary works written in Romance languages. These were usually poems and novels about knights, as well as so-called «romances». At the end of the 18th century the term acquires a broader interpretation, not only as a definition of adventure, entertainment, but also as ancient, original folk, distant, fantastic-mystical, amazing, frightening, as well as spiritual, sublime. The embodiment of new images required the use of appropriate means of expression, which prompted the performers to constantly search for them. In music, this was reflected in the rapid development of timbre and

technical qualities of the instrument, as well as the formation of new forms and genres. Complicating the artistic and technical side of musical compositions, increasing the volume of concert repertoire, expanding the possibilities of music publishing in the early 20th century contributed to the emergence of performing arts to the forefront, along with composition.

The result of these processes since the end of the 18th century in European musical culture was the formation of a new type of performer. Until now, the universalism of musical creativity existed in the art of music, when every musician, who usually possessed several instruments, was also a composer. In particular, the German flutist J. Quantz, an influential musical authority of the middle of the 18th century and a teacher of the Prussian King Frederick William II, points to this in his autobiography. In particular, he mentions that he learned to play not only the violin, oboe, trumpet and piano, but also «did not neglect» the study of cornet, trombone, hunting horn, bassoon, German bass viola, viola da gamba and other instruments, «on which must be able to play a good city musician».

The highest achievement and a mandatory component of the universal musician's performance practice was the ability to improvise: even the usual accompaniment to digital bass was also a form of improvisation. Improvisation skills were included, along with the study of composition and music theory, as a part of the musician's training. Because the performance and creation of music was in an organic unity and was inseparable from each other, it gave a specific character to both the process of training and music thinking in general. Improvisation skills helped to capture the work more quickly and holistically, to play more freely and effortlessly. The improviser, who could instantly create any complex composition, approached the performance process differently, because he was not just a mediator between the author and the listener, but also a «generator» of musical ideas. Such a musician was valued above all and acted as a composer of the highest type. This property of musical performance of the 18th century became an important factor in the development of virtuoso art of the next day.

One of the first and brightest representatives of the new type of virtuoso performers was Niccolò Paganini (1782-1840). Whose work played a crucial role in introducing new concert-virtuoso forms of music making and rethinking the

established classical stereotypes of the game (not only violin, but also piano and orchestra), contributing to the separation of performing arts into an independent industry. Having revolutionized the violin, the Genoese violinist became a reformer and founder of the virtuoso-romantic trend in the performing arts of 19th century Europe. Thus, the interest in the formation of performance specifics, as well as the development and formation of concert-virtuoso traditions in the works of the outstanding violinist-virtuoso N. Paganini, thanks to which instrumental performance has become a leading component of European music culture, is natural.

### Theoretical Framework or Literature Review

The development of Romanticism is a landmark phenomenon in art. Various aspects of the problem of style and creativity of outstanding personalities of this era were considered by such researchers as M. Chernyavskaya (Chernyavskaya, 2015), A. Dmitrieva (Dmitrieva, 1980), S. Khudozhnikova (Khudozhnikova, 2014). More than two hundred years of life and work of Niccolò Paganini have been covered in numerous works by various authors. The list of the main editions of the 19 – first half of the 20th centuries is given in the monograph of I. Yampolsky. A thorough analysis of the «pagans» of the second half of the 20th century is carried out in the work of T. Berford. These researchers emphasize that throughout the main issues of most works remains the mystery of the figure and the fantastic technology of the game N. Paganini. Separate sections in music dictionaries, reference books and encyclopedias in domestic and Russian-language sources on the history of music and performance styles, development of technology and specifics of playing the violin are devoted to the art of the great violinist. In particular, these are the fundamental works of L. Auer (Auer, 1965), E. Dukov (Dukov, 2003), L. Ginzburg (Ginzburg, 1990), S. Keene (Keene, 2012), L. Raaben (Raaben, 1967), I. Yampolsky (Yampolsky, 1961) etc.

The peak of research interest in the figure of N. Paganini in Soviet musicology came in the 60's and 80's of the 20th century, when the main body of literature about the life and work of the great violinist was created. Along with biographical essays, the authors of these publications (Grigoriev, 1987; Raaben, 1967; Yampolsky, 1961) pay attention to the performing skills of N. Paganini, the techniques that he first introduced in the academic violin art,

innovations and features of his performing activity.

To overcome the brand of legends and the haze of mysticism around the name of N. Paganini, where it is almost impossible to «distinguish reality from fiction», sought I. Yampolsky. This author highlighted the life and career of N. Paganini, based on original documents, letters and statements of contemporaries. In the book «*Niccolò Paganini. Life and art*», consisting of two independent parts – the biography of the artist and the characteristics of his performing and compositional work, the researcher tried to give a realistic assessment of the performance and art of the violinist. In the context of this article, the second part of the monograph is of considerable interest, which analyzes the virtuoso's compositional work and violin techniques and technical means that he used in his works.

Recognizing the uniqueness of the technology of N. Paganini's play as the basis for the further development of performing arts (even in the 20th century), V. Grigoriev (Grigoriev, 1987) tried to reveal its «secrets» in his work. From the standpoint of musicology of the second half of the 20th century, this researcher analyzed the principles and features of N. Paganini's violin technique, thanks to which he achieved super virtuoso mastery of the instrument.

Interesting in an attempt to explain the technology of the game, introduced by the great Genoese, is the essay of N.B. Yefremenko «*On the secret of Paganini. A short guide to the accelerated mastery of the technique of playing the violin*». This author sought to reveal the principles of violin technique by N. Paganini, based on a psychophysiological approach. The development contains a theoretical section on acoustics, physiology and psychology, necessary for the performer to play stringed instruments, as well as a methodological justification of the techniques on which the performance of N. Paganini was based. In the third edition, more carefully than in the previous ones, a number of elements of the proposed technique are highlighted, which fully justify themselves when studying the technique of playing the violin and viola. The author of the essay believes that this method can be used in teaching to play other stringed instruments, including cello and double bass, taking into account their vertical position. The work of L. Raaben «*Life of remarkable violinists: Biographical etudes*» reveals questions about some of the techniques and methods of playing the great violinist. This

author identifies 2 groups of tasks that need to be studied in connection with the unexplained aspects of the technique of N. Paganini's play: «1) for the first time he introduced into performing and compositional practice such techniques as double flageolets, pizzicato and tremolo of the left hand, etc 2) methods that allowed the artist ... to maintain their technique at the highest level without constant long-term training».

Much interest of musicologists is given to certain aspects of the work of N. Paganini. Different angles of his cycle «24 caprices for the solo violin» in different periods were the subject of study. In this regard, we should mention the collection of works by N. Paganini, published in Kiev in 2019. The editor and compiler of the work N. Sivachenko (Sivachenko, 2019) set a goal to collect little-known violin compositions by N. Paganini, including sonatas on one string «Napoleon» and «Maria Louise», «Polonaise with variations», Variations on the theme «Pria ch'io l'impegno» J. Weigl, Variations on the theme «Non piu mesta accanto al fuoco» by G. Rossini, «Perpetuela» from «Sonata a movimento perpetuo» and others. The musical text is preceded by a detailed historical reference with information about the works and the characteristics of the technical tasks set by N. Paganini in these compositions. It should be noted that this publication is one of the few appeals of Ukrainian authors to the work of a genius virtuoso.

The authors of this article do not consider N. Paganini's biographies of artistic or semi-artistic plan (ex, A. Vinogradov, A. Palmin, M. Tibaldi-Chiesa, etc.), because to use them in scientific work is not entirely correct. However, it is interesting to note the unusual vectors of the reception of personality and creativity of N. Paganini in the literature of the early 21st century. First of all, this is S. Keane's popular book «Paganini Syndrome and Other True Stories of Genius Recorded in Our Genetic Code», devoted to an important and interesting section of biology – genetics. And for the writer L. Kepler (Kepler, 2010), the mystery of the figure and the mystery of the biography of N. Paganini were the reason for the creation of the detective novel «Paganini's Contract». Of course, these are not the only examples of extraordinary perceptions of modern researchers and writers of the personality and actions of the great virtuoso.

## Methodology

The methodological basis of the article is a comprehensive review based on historical-theoretical and music-performing approaches to the research of the stated problems. The main methods of work are historical-comparative, structural-functional and theoretical generalization.

## Results and Discussion

Acquaintance with the creative path of N. Paganini proves that throughout his life he gradually and steadily freed the violin art from the conservative approach of his predecessors and the usual at that time instrumental limitations. According to the authors of most of the works, the impetus for this was the artistic meetings that took place during the years 1794-1795 and had a fateful impact on both the later life of the violinist and the nature of his work. Some of the authors, based on the autobiography of N. Paganini, emphasize that the most significant factor for his professional growth in this period was the acquaintance with the art of A.F. Duranovsky (1770-1834). Indeed, in the early 1830s N. Paganini confessed to F. J. Fetis in Paris that many «secrets» of his technique (including left hand pizzicato as an accompaniment to a melody played by a bow) borrowed from a Polish virtuoso. But most researchers in the absence of an exact date of Duranovsky's visit to Genoa, question these facts.

Another significant event for Niccolo was his acquaintance and communication with the Marquis G. di Negro, who took care of the development of the violinist. It is indicated that in 1797 in the music library di Negro Paganini found the manuscripts of the violin virtuoso P. A. Locatelli (1695–1764). Compositions from Locatelli's «The Art of New Modulation» and «The Art of the Violin» were the most complex of Paganini's studies. V. Grigoriev (Grigoriev, 1987) suggested that they became the prototype for the famous Paganian whims, which the violinist began to create after reading the manuscripts of Locatelli.

Paganini's independent performance began at the age of thirteen in Genoa. According to researchers, Niccolo owed his popularity to the variations on the theme of «Carmagnola» favorite song of the Genoese of that time. Soon the violinist played several concerts in Parma with tremendous success and toured the cities of Northern Italy (Pisa, Livorno, Bologna, Milan).

Among the authors of works that could be performed in these concerts, in addition to their own variations, the names of J. B. Viotti, R. Kreutzer, I. Plaiel, P. Rode, possibly J. Tartini.

In connection with the programs of the young virtuoso, it should be noted that in the concert practice of that time, the combination of composer and performer in one person was still typical, but the interest in performing skills has grown significantly. From now, the characteristic figure was not a composer-improviser, but a composer-virtuoso, even a virtuoso rather than a composer, which testified to the success of N. Paganini. And along with virtuosos-composers, who performed mostly their own compositions, musicians of another type – virtuosos-interpreters – began to perform more and more often. Their emergence was associated with the process of branching into specialization, which was observed in all areas of music culture. The growing separation of compositional, performing, and pedagogical specializations by the middle of 19th century led to the separation of these functions and the recognition of the performing arts as independent. An indisputable confirmation of this is the repertoire of N. Paganini of the Parisian period, which, along with his own, included works by other authors. Thus, T. Burford convincingly proves that «Paganini was known for the concert № 1 Rode and the concert № 24 Viotti». And the analysis of a unique document from the collection of R. De Barbieri with recordings of the initial bars of concerts of French violinists, made by Paganini himself, gave the musicologist reason to conclude that his programs also included violin concertos by Viotti (№ 17, № 18, № 22), Kreutzer (№ 9, № 10, № 15), Rode (№ 2, № 3).

An important role in this process was played by the spread of the «brilliant style» of the game, which was in vogue in the early 19th century. As a result, the audience wanted piano or violin virtuosos to have an extremely high technical level, mastery of special techniques and effects, and perfect playing skills. However, the technical «armament» of the performers of the beginning of the century was largely based on the principles of classical technology, which were based on clarity, clarity, harmony of execution, careful detailing of elements, the use of mostly linear melody movement and more.

Given the latest approach to the technique of the game, used by N. Paganini, from an early period, to overcome the established traditions was destined for him. V. Grigoriev's (1987) remarks

concerning N. Paganini's Capriccio, that they «made a revolution in violin language, violin expressiveness», that «the young composer reached a new meaning here, melting many general forms of movement – passages, figures, strokes and other techniques – in artistic musical meanings», can be attributed to all his work.

Later, Lambert Massart, who was present at the maestro's concerts in Paris, tried to find out the peculiarities of N. Paganini's violin technique. A well-known French violinist, a student of R. Kreutzer, a friend of F. Liszt, realized that Paganini's performance was based on unprecedented speed of movement, spread position of the hand and fingers on the instrument, which allowed great stretching, timbre and color richness and symphonic sonority and texture. Massart found that Paganini found «a new principle of movement, when the large parts of the left hand – shoulder and forearm, as well as the thumb, anticipate the movements of the hand and fingers on the fingerboard, prepare for them the field of action, which provides amazing elasticity and accuracy of transitions and jumps». This setting and movements of the left hand, as well as a kind of bow in the cantilena completely contradicted the classical principles of sound production. But under other conditions it was impossible to reproduce the most complex, at the limit of human capabilities, the techniques used by N. Paganini, rapid passages up with a trill of left-handed pizzicato, double flagellates, saltando – bow throws on a string, interspersed with pizzicato left hand, tremolo left hand, bar ricochet, etc. After all, in such a «schedule» the classical principles of the game with a clearly defined positional technique and linear melody were simply unacceptable.

Paganini's performing career and popularity peaked during the Paris period of his life. The artistic culture of Paris in the 1830s, then the center of European musical art, was associated with the work of almost all the outstanding virtuoso instrumentalists of the first half of the 19th century. It was in Paris that the level of talent and skill and the future career of each artist were determined. But Paganini was already «armed» with many years of experience of the concertmaster and made an exact calculation: the fame of the unsurpassed virtuoso was ahead of him, and the capital was instantly conquered. For performances he was given the main hall of Paris – the Grand Opera, and on the first evening (March 9, 1831) was attended by the entire artistic elite: O. de Balzac, C. Bériot, W. Hugo, E. Delacroix, F. Liszt, M. Malibran,



F. Mendelssohn, A. Musset, D. Auber, G. Rossini with his old teacher F. Paer, Georges Sand and others. Psychologically, the program was chosen correctly, where along with his First Violin *Concerto accompanied by an orchestra* sounded «Military» sonata on string «G», and ended the evening solo work – «Introduction and Variations» on «Nel core pui non mi sento» from the opera «The Beautiful Millwife» by G. Paisiello. Construction of a concert, alternating both large-scale compositions with orchestra and solo works, covering the entire range of instruments, including the extreme height of flagellates, and demonstrating the timbre and capabilities of the extreme lower string, given the huge palette of images where unbridled romantic impulses contrast with the most intimate lyrics, was designed for the effect and close attention of the public. All this in itself favorably emphasized the strongest aspects of performance and stunned the audience.

Thus, being an outstanding violinist, N. Paganini became one of the first «directors» of concert shows, skillfully using psychological techniques, distributing semantic accents, directing the perception of listeners in the necessary movement. His personal stage charm, spectacularity and mystery of his art were also aimed at achieving this goal. The organic unity of his skill and ability to «present» / sell his art created the emotional tone that met the artistic requirements of romantic performance.

In the 30s and 40s of the 19th century, a period of extraordinary popularity of virtuoso art, works based on the themes of popular arias or ensembles from opera performances were especially successful in instrumental music. Thus, the repertoire of the concertgoers necessarily included various instrumental fantasies, paraphrases, transcriptions into opera or other popular melodies. Another part of the concert repertoire was formed under the influence of the desire to demonstrate speed and various technical effects, which for most virtuosos was the key to true success. This brought to life works of a technical nature, which were realized in the genre of so-called «concert etude».

Based on a certain developed construction, such compositions (transcriptions, variations, etudes) were created quickly, without much effort, the main thing was to choose a «successful» theme and give it a skillful instrumental «cut». This «artisanal» approach has led to a whole array of plays of an openly low artistic level. This repertoire is intended for performance in salons

and defined the general negative attitude to virtuoso culture.

N. Paganini was one of the first to create compositions of this kind. This is clearly evidenced by the works collected in the above collection under the direction of N. Sivachenko (2019): «Polonaise with variations» («Polacca con variazioni», 1810), Variations on the theme «Pria ch'io l'impegno» from the opera «The Love of a Sailor» and Weigl (1818), Variations on the theme «Non piu mesta accanto al fuoco» from the opera «Cinderella» by G. Rossini (1817-1818), «Maestosa Suonata sentimentale» on the theme «Gott erhalte Franz den Kaiser» by J. Haydn (1828), «Perpetuela» from «Sonata a movimento perpetuo» (1832, as a sample of etude movement). These include the well-known Paganinian Variations «Witches» on the theme of the ballet «The Wedding of Benevento» by F. Suessmayr (1813), Variations on a theme from the opera «Moses» by G. Rossini (1819), «Three arias with variations» on themes from operas W.A. Mozart (1824), «Moto Perpetuo» («Perpetuum mobile», 1835), *variational cycles* on the themes of the national anthems of Austria (1828) and England (G.F. Handel's theme «God Save the King», 1829) etc.

According to the structure and thematic development, all these opuses are «produced» according to a certain «author's cliché». In this regard, researchers emphasize the decisive role of the genre in the work of N. Paganini, who dictated the «strict stylistic norms» and was an «immanent property» of his works. Limited to genre requirements, Paganini's composition has not evolved for several decades. This is confirmed by the structure of his works of different periods, in connection with which T. Burford notes: «Variations “Witch” for violin and orchestra (Le Streghe, M.S. 19, 1813) is stylistically much closer to the so-called “Venice Carnival” for violin and an orchestra written a decade and a half later (O mamma, mamma ca[ra], MS59: 1829) than a violin concerto created in the same 1810s № 1 (Es-dur; Primo Concerto, MS 21: 1815 -1816), the monumental style of which, in turn, will be identical to the style of the concerto № 3 (E major; Terzo Concerco, MS50: 1826), which appeared much later». This approach probably led to the attitude of the next generation of artists to the work of N. Paganini as a «relic» of the past, which at the turn of the 19th and 20th centuries affected the loss of public interest and devaluation of the great Genoese.

Another specific facet of romantic performing arts was the manifestation of a certain «dress code» of virtuosos. The basis for it were the guidelines of the romantic ideal of the artist, according to which the romantic artist did not perceive a balanced, «intellectual» performance. The artist was to be a leader, to draw the general public to the «sacred flame» of art, to lead people to his magical world. The goal of the performers was to impress, stun the audience, bring it out of balance, show strong and impressive feelings. A characteristic phenomenon was the rejection of the restriction of artistic individuality and the desire for free expression of feelings. Because of this, the romantic style of the game was distinguished by emphasized expressiveness and expressiveness. The overlap of feelings, the extreme emotional tension was often expressed both in the idyllic and sublime, and in the demonic nature of creativity.

All these qualities were vividly accumulated in the art of N. Paganini. Moreover, the violinist deliberately and relentlessly worked to create such image. The myth of the fantastic, the unsurpassedness of his play, its magical influence on others, the mystical, inexplicable facts of the biography were consistently created and maintained by Paganini himself throughout his life. For almost two centuries, none of the researchers has been able to unravel this tangle and distinguish fiction from truth.

The art of the violinist had a huge impact on the formation of composition and performance of the next generation of romantics. First of all, it was F. Chopin (1810-1849), who heard the Grand Maestro in Warsaw in 1829, and later in Paris – F. Liszt (1811-1886) and G. Berlioz (1803-1869). Under the influence of the play of the great Genoese there was a rethinking of the figurative content of music in R. Schumann (1809-1856).

The violin traditions introduced by the great Genoese were directly developed in the works of K. Lypynsky (1790-1861). Even in the Italian period of N. Paganini's life, they organized both personal competitions and joint concerts. N. Paganini's influence on the Polish violinist's performance could be seen in the large-scale concert «presentation» characteristic of K. Lypynsky's performance style, his extraordinary «symphonic» interpretation of the violin, which did not correspond to the «lyrical» direction of European salon culture of the first decades of the 19th century. K. Lypynsky was ahead of his fellow virtuosos in depth and breadth of thinking, including in his repertoire

not only his own works, which was typical for the performance of that time, but also other authors. This approach (concert style and repertoire policy) corresponded to the romantic style of performance of the second quarter of the 19th century.

## Conclusions

In the first decades of the 19th century, changes in aesthetic views and artistic content of art, associated with the establishment of the romantic style in art, affected the rethinking and renewal of musical language and imagery of works, expressive, technical, colorful means of performance and more. This manifested itself in the expansion and complication of the means of artistic expression, in the invention and development of new elements of musical expression, especially virtuoso technique, color and performance techniques, in the latest approaches to stage realization, and so on.

Features of the «romantic» expression and the new concert «presentation» were vividly presented by the art of N. Paganini. The Italian violinist perfectly understood the instrumental specifics of the violin, deeply penetrated into the essence of the performance process, understood the musical needs and tastes of his time. Based on his extraordinary intuition and accurate calculation of his influence on the public, Paganini was also one of the first «PR managers» in European concert culture, who built new market relations in this area.

Paganini's art largely determined the development of European romanticism, in particular the work of prominent artists G. Berlioz, K. Lypynsky, F. Liszt, G. Meyerbeer, G. Rossini, F. Chopin, R. Schumann, and others. Despite the huge array and diversity of the existing literature on N. Paganini, with each new study, new facets of the figure and work of the genius violinist are revealed and new prospects for their further study appear.

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## Online learning during the Covid-19 Pandemic: A review of literature

التعليم عن بعد أثناء جائحة كورونا: مراجعة أدبية

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### Abstract

During the Covid-19 pandemic, schools all over the world changed from in-class learning to online learning. Accordingly, it is important to review and explore the studies conducted in online learning for better implementation and adaptation. The current review is a systematic assessment of the studies done from the point of view of teachers and students concerning the use of online learning during the Covid-19 pandemic. Three scientific database browsers were used to locate the related papers, and thirty studies were selected to be reviewed for this report. The studies were analyzed based on several variables under three thematic categories: teacher views, student views, and the outlooks of both teachers and students. The results revealed different opinions on using online learning during the pandemic. Several advantages and challenges were recorded from the views of teachers and students. Recommendations and future research are discussed.

**Keywords:** online learning, Covid-19 pandemic, teachers' views, students' views.

### Introduction

The concept of online learning has attracted immense attention in recent times as a result of the increasing acknowledgment of its importance and prevalence in contemporary society. Indeed, it is well acknowledged that online learning has primarily developed with the backdrop of advanced digital technology and its increasing penetration and adoption in almost every aspect of contemporary life. At its most basic, online learning encompasses a mode of learning undertaken via virtual learning environments with the active utilization of digital devices (Rivera-Vargas et al., 2021). According to

المخلص  
خلال جائحة كورونا (Covid-19)، تحولت أنظمة المدارس في جميع أنحاء العالم من التعليم التقليدي إلى التعليم عن بعد. وأصبح هناك أهمية للكشف عن الدراسات التي أجريت في التعليم عن بعد لمعرفة كيفية تنفيذ العملية التعليمية و تكيفها أثناء جائحة كورونا (Covid-19). هدفت هذه الدراسة لتقييم العملية التعليمية من وجهة نظر الكادر التدريسي و الطلبة. استخدمت هذه الدراسة ثلاثة متصفحات (قواعد بيانات) لتحديد الأوراق ذات العلاقة لهذه الدراسة. وبناء على ذلك، تم اختيار ثلاثين دراسة علمية لمراجعتها بناء على ثلاثة متغيرات وهي آراء الكادر التدريسي و آراء الطلبة و آراء الطلبة و الكادر التدريسي أثناء جائحة كورونا عبر استخدام التعليم عن بعد. توصلت هذه الدراسة إلى عدة نتائج و آراء حول استخدام التعليم عن بعد أثناء جائحة كورونا، و كشفت أيضا عن عدة مزايا و تحديات من وجهة نظر الكادر التدريسي و الطلبة، و ناقشت الدراسة عدة توصيات و دراسات مستقبلية.

الكلمات المفتاحية: التعلم عن بعد، جائحة كورونا، آراء الكادر التدريسي، آراء الطلبة.

Rivera-Vargas et al. (2021), the advent and consolidation of online learning have to be comprehended not only as to the evolution of conventional distance learning but also as a modality that has the capacity to handle the new and formative demands pertaining to a technologically-infused world as well as a networked and connected society. It may be acknowledged that online learning has developed organically from distance learning, which underlines learning activities that occur in instances where there exists a physical separation between learner and instructor. Previously, such

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learning used to involve communicating through audio and teleconferences, video and audio recordings, and multimedia systems as well as written correspondence. Online learning involves the same concept, with communication being undertaken via the worldwide web. In this case, online learning involves distance learning where learning occurs via computers and the internet (Yeşiloğlu et al., 2021).

### **Purpose of study**

The main purpose of the study is to provide a literature review of the understanding of how online learning worked during the Covid-19 pandemic, based on the views of teachers and students and how those views have developed during the Covid-19 pandemic. This study shows a variation in carefully selected studies done during the Covid-19 pandemic, with different study implications. Moreover, this study investigates the variation of the methodologies used by researchers who examined and explored online learning during the Covid-19 pandemic. It is important to provide a clear view of teachers' and students' views concerning online learning during the pandemic. Lastly, the results of the study will discuss the findings of the selected studies and provide more in-depth conclusions.

### **Theoretical Framework or Literature Review**

#### ***Advantages and Disadvantages of Online Learning***

The increased penetration and popularity of online learning have been predicated on the varying advantages that it encompasses. Key among these is the capacity to access opportunities for learning irrespective of the geographical limitations of individuals. According to Rivera-Vargas et al. (2021), online education encompasses an inclusive educational modality that would facilitate and enable access to higher education as well as the development of digital competency. Indeed, active utilization of digital and electronic devices in online education could potentially facilitate the development, access, and enhancement of the quality of education. This is complemented by its capacity to offer and standardize digital and technological competencies of the students that utilize the same virtual environment, an element that would eliminate the potential digital divide across multiple intersectional dimensions such as age, geographical location, social class, gender, and physical abilities.

On the same note, online learning has enhanced efficiency in access to learning opportunities.

According to Yusnilita (2020), online learning offers an excellent technique for material delivery that is not limited by location or time, allowing for accessibility to instructions from anywhere, in any time zone. This means that learners can conveniently fit education into their busy lives via online learning.

Further, online learning is known to be immensely effective in the education of students, enhancement of professional development, and cost-effectiveness in combating the increasing expense of post-secondary education, as well as potentially offering world-class education to any person with a broadband connection. Indeed, e-learning is considerably cheaper compared to conventional learning since it would not need paper or pencil. Also, logistical costs would be completely eliminated since learning can occur at any time and place (Yusnilita, 2020). The basic implication is that the learners are provided with more flexibility, customization, and personalization since the training material would not be selected by the teacher. Rather, the students have the chance to obtain their own knowledge requirements.

However, some scholars have noted that online learning is plagued by reliability issues, particularly given the disparity pertaining to access to the requisite technology. According to Adnan and Anwar (2020), online learning may be effective in countries that are digitally advanced, but the lack of access to affordable, reliable, and fast internet connection stands in the way of online learning, particularly in the case of individuals who live in rural and marginalized communities. This may worsen disparities, as students who access the internet via smartphones would be incapable of taking advantage of online learning, since a large proportion of online content would not be accessible through smartphones (Adnan & Anwar, 2020).

In addition, online education comes with the challenge of maintaining the motivation of learners. According to Erumit (2021), online learning comes with a difficulty in maintaining the high levels of engagement and motivation that have been a dominant feature in face-to-face classrooms. This may be predicated on the fact that online learning does not allow for enhanced interaction or even practical lessons. Of course, online learning is still in its infancy, with different learning platforms being developed, which will incorporate more features to allow for enhanced engagement. As other scholars have noted, other platforms such as Zoom are allowing enhanced interaction between the learners and

the teachers, where the students can inform the teacher in cases where they are confused, might want a change in pace or need to ask a question.

### ***The Role of Educational Institutions in Transforming to Online Learning***

As much as online learning confers immense responsibility to the learners, as far as active learning is concerned, it is noteworthy that educational institutions have a key role to play in safeguarding an effective shift to online learning. Key among the roles is the utilization of effective and efficient technology that would enhance learning for the students. Presently, educators have put in place various online synchronous meeting technologies that assist or enhance student comprehension, the most common being Zoom. Zoom has varying features such as breakout rooms, annotation tools, and screen and video sharing, among other functions, that foster communicative language learning in collaborative synchronous classes through the use of authentic language instruction. Memis (2021) notes that in the course of face-to-face classes, educators strive to obtain paralinguistic clues that would measure the interest, commitment, and comprehension of the students. Zoom has gained popularity as a result of its capacity to enable students to utilize non-verbal icons to indicate their approval and disapproval, need for a break, desire to slow down or speed up, and even their questions. The symbols offer crucial data pertaining to the agreement, attentiveness, enthusiasm, and confusion of the students, with language content being addressed. This is complemented by the prospects of Zoom allowing educators to enhance the engagement of the students, especially in the course of longer live online sessions, through the incorporation of surveys and polls that can ensure that the students are actively engaged in the classroom activities.

In addition, learning institutions must ensure that the selected online learning platforms are easy to use. It is noteworthy that a large number of students and educational institutions have just recently shifted to online learning as a result of the increased shutdown of educational institutions by the Covid-19 pandemic. This means that a large proportion of them are bound to be apprehensive about using new technology. The incorporation of ease of use would be fundamental in enhancing the adoption of the technology and safeguarding the capacity of both the students and the educators to collaborate more in the course of the learning sessions, thereby enhancing engagement in the long term

and the short term. Ease of use would particularly involve eliminating the challenges that come with the deficiency of technological abilities of the educators and students alike, as well as the connection problems that both students and teachers are bound to face at any time. Of course, other challenges might involve the cost of equipment required for online learning. As much as this is recognized as one of the least problems in the case of online learning, particularly given that digital technology has penetrated a wide range of places and become increasingly cheaper and affordable, it still remains a major hindrance (Epaminonda et al., 2021).

On the same note, educational institutions must ensure that there is a careful balance between the adoption of technology and the interests of the different stakeholders. It may be acknowledged that the adoption of online learning in the current context may have occurred too quickly, to the extent that educational institutions did not have the time to consult or even consider the interests of the students themselves or even their capacity (intellectual and technical) to access the lessons. According to Sahbaz (2020), students have demonstrated immense opposition to the concept of online learning and would be unlikely to choose it if they are granted the choice. During the Covid-19 pandemic, both instructors and students were caught unaware by the sudden onset of lockdown, with a large number of institutions having neither the appropriate materials nor sufficient materials to safeguard the effective transmission of education. Prior to the implementation of any distance learning program, it is imperative that educational institutions strive to safeguard the pedagogical, institutional, personal, technological, and instructional readiness of the stakeholders. This would come in handy in safeguarding the success of the program in the long term and the short term.

It should be acknowledged that a large proportion of negative attitudes toward online learning among students is primarily predicated on the lack of sufficient learning resources. Indeed, students have often underlined the fact that online learning is plagued by certain challenges, including the lack of technological wherewithal and skills as well as the insufficiency of learning materials, lack of internet, and other factors. As noted in Al-Salman & Haider (2021), the implementation of online learning should not be done in a haphazard manner. Rather, it is imperative that educational institutions strive to enhance the capacity of the students and the

instructors to undertake and participate in online learning sessions.

**Methodology**

The study followed the literature review research process, and the data was collected by retrieving research papers from three credible online databases (IEEE, ProQuest, and Springer). This research was conducted and published during the Covid-19 pandemic between March 2019 and December 2021. The selected papers in this study were chosen through variant keywords in the search engine in the three databases, using “Covid-19 pandemic and students’ views and online learning” and “Covid-19 pandemic and teachers’ views and online learning” to find

studies related to the topic. The total number of papers found in the three databases was 120, and all abstracts were reviewed to make sure that the papers were related to the purpose of this study. There were 28 of the papers from the three databases selected for the review. Table 1 shows the final summary of the results. According to the study design, there were three types of methods used in the papers: the Quantitative Method (n=11; 39.29%), Qualitative Method (n=10; 35.71), and Mixed Method (n=7; 25%). In addition to that, 14 papers were a discussion of teachers’ views (50%), 11 papers were a discussion of students’ views (39.29%), and 3 papers were a discussion of teacher and student views (10.71%).

**Table 1.**  
*Overview of the Papers.*

	Authors	Study design	Teachers’ views	Students’ views
1	Gkamas, Paraskevas & Varvarigos (2019)	Quantitative Method	X	
2	Marčinković, Aberšek & Pesek (2021)	Quantitative Method	X	
3	Mailizar, Abdulsalam & Suci (2020)	Quantitative Method	X	
4	Hakami & Hernandez-Leo (2021)	Quantitative Method	X	
5	Kundu & Bej (2021)	Mixed Method	X	
6	Yeşiloğlu, Gençer, Ekici & Isik (2021)	Mixed Method	X	
7	Memis (2021)	Mixed Method	X	
8	Karakaya, Adigüzel, Üçüncü, G., Çimen & Yilmaz (2020)	Qualitative Method	X	
9	Goodarzi, Weisi & Yousofi (2020)	Quantitative Method	X	
10	Aksela & Haatainen (2019)	Qualitative Method	X	
11	Gerard, Wiley, Debarger, Bichler, Bradford & Linn (2021)	Qualitative Method	X	
12	Kaimara, Fokides, Oikonomou & Deliyannis (2021)	Mixed Mothed	X	
13	An, Kaplan-Rakowski, Yang, Conan, Kinard & Daughrity (2021)	Mixed Mothed	X	
14	Erumit (2021)	Mixed Mothed	X	
15	Zeichner (2021)	Qualitative Method	X	
16	Aytaç (2021)	Qualitative Method	X	
17	Durak & Çankaya (2020)	Qualitative Method		X
18	Epaminonda, Efthymiou & Ktoridou (2021)	Quantitative Method		X
19	Cook-Chennault & Villanueva (2020)	Mixed Mothed		X
20	Munir, Erlinda & Afrinursalim (2021)	Quantitative Method		X
21	Sahbaz (2020)	Qualitative Method		X
22	Ocak & Karakus (2021)	Mixed Mothed		X
23	Al-Salman & Haider (2021)	Quantitative Method		X
24	Yusnilita (2020)	Qualitative Method		X
25	Babayiğit, Cizrelioğullari & Altun (2020)	Quantitative Method		X
26	Adnan & Anwar (2020)	Quantitative Method		X
27	Rivera-Vargas, Anderson & Cano (2021)	Mixed Mothed		X
28	Setiani, Aditya, Wijayanto & Wijaya (2020)	Quantitative Method	X	X
29	Qazi, Hardaker, Ahmad, Darwich, Maitama & Dayani (2021)	Qualitative Method	X	X
30	Raes (2022)	Mixed Mothed	X	X

## Results

This study analyzed published papers from three databases (IEEE, ProQuest, and Springer) and all of these papers were published between March 2019 and December 2021. Moreover, the majority of papers (17) were published in 2021, while (10) papers were published in 2020, (2) papers were published in 2019, and (1) paper was published in 2022. The majority of papers (7) were published in Turkey, while Indonesia

had (4) papers, the USA had (3) papers, and Greece had (2) papers. One paper came from each of the following countries: Slovenia, Saudi Arabia, India, Iran, Finland, Cyprus, Bosnia and Herzegovina, Jordan, Pakistan, Spain, and Belgium. Categorized according to the type of institutions, (15) papers were applied in universities, while (12) were applied in schools and one paper is considered a review paper (see table 2).

**Table 2.**  
*Basic information about studies.*

<i>Year of Publication</i>	N	Percentages
2019	2	6.7
2020	10	33.3
2021	17	56.7
2022	1	3.3
	30	100
<i>Country</i>	N	Percentages
Turkey	8	26.7
Indonesia	4	13.3
USA	3	10
Greek	2	6.7
Slovenia	1	3.3
Saudi Arabia	1	3.3
India	1	3.3
Iran	1	3.3
Finland	1	3.3
Cyprus	1	3.3
Bosnia and Herzegovina	1	3.3
Jordan	1	3.3
Pakistan	1	3.3
Palestine	1	3.3
Spain	1	3.3
Belgium	1	3.3
Review Paper	1	3.3
	30	100
<i>Type Of Institutions</i>	N	Percentages
Schools	14	46.7
Universities	15	50
Review Paper	1	3.3
	30	100

Table 3 shows the publications of studies (databases). The study was collected from three databases. IEEE is considered the most-sourced database, with 11 papers (39.29%), while

ProQuest came in second with ten papers (35.71%) and the fewest (7 papers) were sourced through Springer (25%).



**Table 3.**  
*Publications of The Studies.*

	N	Percentage
IEEE	11	36.7
ProQuest	11	36.7
Springer	8	26.7
	30	100

### *Teachers' Views*

Volumes of literary works have been written examining the concept of online learning with a view toward gaining more insight into its efficiency in the implementation of online learning and the hindrances that have hampered the attainment of the same. One of the most important elements that should be examined is the multiplicity of barriers to online learning. In "Secondary School Mathematics Teachers' Views on E-learning Implementation Barriers during the COVID-19 Pandemic: The Case of Indonesia," Mailizar et al. (2020), explored the perceptions of secondary school mathematics teachers on e-learning implementation barriers in the course of the pandemic. The four barrier levels that are thus examined include teacher, school, curriculum, and student, with the study also examining the relationship between the levels of barriers and the demographic background of the teachers. It was determined that the student-level barriers were the most impactful to e-learning utilization. Further, student-level barriers demonstrated a strong positive correlation with the school-level barrier and curriculum-level barrier, with the teachers' backgrounds having no effect on the barrier levels. The student-level barriers included insufficiency of skills and knowledge, as well as devices for use in e-learning, lack of interest, internet connection, and inability to access the e-learning system. This underlines the need for policymakers, especially learning institutions, to create comprehensive strategies that would prepare the students for the use of e-learning. These could include the provision of students with vouchers for internet connection alongside incremental training on the utilization of e-learning prior to the implementation of the same, to safeguard proactive student engagement.

However, the implementation of online learning has been facing numerous hurdles. In "We have efficacy but lack infrastructure: teachers' views on online teaching learning during COVID-19," Kundu & Bej (2021) sought to examine the perceptions of the teachers regarding the change

from offline to online learning. As much as the teachers perceived their efficacy in online learning to be considerably pronounced, they complained about the lack of infrastructure to safeguard efficiency. In cases where there was a prevalence of good efficacy, there were minimum concerns pertaining to infrastructure. In essence, their attitudes demonstrated the least concern for the things that they do not have and more concern with the things that they could do with the resources that they do have at their disposal. Perhaps most noteworthy is the fact that teachers would not be perceived as entirely homogenous as far as their readiness to take up online learning is concerned. Indeed, different groups of teachers exist in the contemporary learning environment, in which case it is imperative that educational institutions strive to customize their implementation procedures to their distinctive circumstances. This might involve including the teachers and students in the implementation processes and ensuring that they seek their opinions prior to the implementation process. Further, the provision of sufficient training may be imperative in the contemporary learning environment to safeguard their preparedness.

Marčinković et al. (2021), on the other hand, examined the acceptance of MS Teams by teachers during the Covid-19 pandemic. It was determined that technology use in remote teaching would be negatively affected by limited internet access and the low digital competency of families. However, it was positively affected by school experience in virtual environments, communication, school organization, and professional teacher education. In addition, Gkamas et al. (2019) examined the challenges faced in the course of online learning using BYOD (Bring Your Own Devices) policies. These included insufficient infrastructural resources as well as a lack of human resources. Even more noteworthy is the challenge of security, clear definition of a regulatory framework for allowing students to use their devices, and acceptable use policy.

Hakami & Hernandez-Leo (2021), on the other hand, underline the importance of a careful selection of the system that is used in online learning. In the study, most of the users stressed the fact that their system enhanced their work productivity and job satisfaction, while also safeguarding their wellbeing. Similar sentiments are made by Zeichner (2021), who examined the attitudes of teachers on ICT and the differences in their attitudes in different schools with varying levels of experience. Veteran schools that have more than four years of experience in ICT programs registered more positive teacher attitudes. Aksela & Haatainen (2019), however, acknowledged the importance of teachers' capacity to implement project-based learning and its impact on effective learning. It affects the content comprehension of the students and their skills development. In the study, PBL was found to be important as it fosters teacher or student motivation and learning, student-centered learning, collaboration, and a sense of community, as well as versatility.

Karakaya et al. (2020), on the other hand, noted that the pandemic did not only affect the health systems of countries but also their education systems. In this case, they examined the views of the teachers regarding the effects of the Covid-19 pandemic on the education process in Turkey. In spite of the concerns that they have regarding the economy, health, and education, it was determined that the pandemic process offers positive acquisitions in skill development, awareness, and utilization of technology.

Gerard et al., (2021) noted that while online learning may be a good alternative, its introduction in the Covid-19 period was haphazard, as most teachers did not have the requisite knowledge and experience to direct the students. However, they have shown longevity in enhancing performance through exploiting the logged student work and creating class discussions. Further, they facilitated students' utilization of interactive models and activities to test conjectures regarding science, as well as guided students on iteratively refining their explanations on the basis of evidence. Online learning also came with sufficient time for self-direction. Similarly, Kaimara et al. (2021) examined the preservice teachers' perceptions on barriers to DGB (digital game learning) implementation. Inefficient resource allocation was cited as a major obstacle, as it hampers the provision of updated devices, equipment, and software, as well as the professional training of teachers, policymakers, and administrators. The obstacle may be surmounted through the use of

easy-to-use and affordable gadgets, which means that only political will is required.

An et al. (2021) reiterated the fact that early online learning was plagued by different problems. These included decreased engagement and participation of the students, lack of access to technology, and concerns regarding their wellbeing, not to mention the decreased work-life balance. The dominant themes that came up included redefinition of the normal, increased blended learning, and uncertainty concerns regarding the new normal, as well as social distancing and hygiene. However, it is noteworthy that the implementation of online learning may not necessarily be applicable for all subjects. In "Examining Pre-Service Teachers' Views about Online Chemistry Laboratory Learning Experiences Amid the Covid-19 Pandemic", Yeşiloğlu et al., (2021) explored the implementation of online learning in chemical laboratory classes and the experiences of the teachers on the same in the course of the Covid-19 pandemic. Key among the advantages of online chemical laboratory learning is the replay capability and the fact that it allows for utilization of technology, enhanced laboratory safety, and the potential for saving laboratory materials and time. Further, it allows for enhanced utilization of technology, which is bound to enhance the efficiency of both the students and the lecturers in the long term and the short term. However, it should be acknowledged that online chemical laboratories imbue a challenge to "learning by doing." This is particularly true given the fact that the students would be incapable of undertaking practical experiments; rather, they would be bombarded with theories or theoretical components of the lecturer. The lack of practical experiments affects the permanency of learning and even the identification of laboratory materials and chemicals. Even more noteworthy is the fact that the students may not always have the capacity to communicate with the instructor. The basic implication is that the application of online learning on courses that require practical skills may not be appropriate in its current structure.

Memis (2021), on the other hand, acknowledged that the implementation of online learning involved different online platforms, key among which is Zoom, a type of synchronous meeting technology (SMT). The author aimed at examining and evaluating the views of teachers on the utilization of Zoom in distance learning. It is acknowledged that one of the major hindrances or downsides of online learning is the potential for properly assessing the capabilities of the

students and their engagement in the class. However, Zoom offers students two fundamental functions that would allow for the maintenance of control of the class. Key among them is the attention tracker, where a clock indicator is merged on the attendee panel next to the name of the participant in the event that Zoom is not the program displayed on the participant's screen for over 30 seconds. Further, there is the Attention score, which offers a rundown of the tracker operation in the meeting papers. This means that the participants would be assigned a score on the basis of the time that they spent in Zoom. Perhaps most noteworthy is the capacity of the teachers to enhance the level of engagement of the students through elements such as surveys and polls that may be employed in engaging students and collecting ideas, responses, and perceptions. It may be acknowledged that online learning involves quite a wide range of digital platforms from which educational institutions and instructors can choose. Indeed, there is no universally accepted digital platform that would be appropriate for every other educational institution. This means that to enhance the efficiency of online learning, every educational institution must undertake a careful analysis of its structures and strive to customize its digital platforms to the needs and experiences of the teachers and students.

Similarly, Aytacı (2021) sought to explore the perspectives of teachers on the impact of the pandemic on the education processes in Turkey. It may be acknowledged that the advent of the pandemic not only affected healthcare systems, but also education systems where schools were closed and had to revert to online learning. There are different elements that cause negative perceptions of teachers regarding online education. It is noteworthy that teachers had negative perceptions of competency pertaining to economic losses, deficiencies in education, and feelings of uncertainty. Further, they had negative views pertaining to poor interactions, technological infrastructure, and unproductivity, not to mention the deficiency of teacher competencies with regard to distance education. The efficiency of online learning systems necessitates strong pedagogical competencies, equipped backgrounds, and the attitudes of the teachers. Further, it is imperative that communication between learners and their instructors is strong, with the systems providing effective feedback. In spite of the challenges pertaining to online learning, it is noteworthy for enhanced efficiency of technology and the potential for enhanced participation of students in the learning processes.

Goodarzi et al. (2020) noted the uncertainty and new experience that came with shifting from face-to-face learning to compulsory online learning in the course of the Covid-19 pandemic. It may be acknowledged that the burden of enhancing the efficiency of the shift fell primarily on the teachers, particularly given the fact that they have previously been the most active players in the learning process. Of particular note is the fact that the challenge of online learning is primarily felt since this was an entirely new environment to which students had been introduced. Unfortunately, the pandemic did not allow much time for the teachers and students to sufficiently prepare for the introduction of online learning; rather, they were simply immersed in the new system within a considerably short time. Since much of the world may currently be adjusting to the new normal and returning to its earlier ways of life, it is noteworthy that online learning is bound to be a more permanent fixture either on its own or as a component of blended learning. Nevertheless, educational institutions have an opportunity to customize learning platforms to their distinctive needs, as well as enhance the preparation of their stakeholders to encourage more uptake of online learning and improve engagement in the long term and the short term.

### *Student's Views*

In "Students' Views on the Use of WhatsApp during Covid-19 Pandemic: A Study at IAIN Batusangkar," Munir et al. (2021) aimed at examining the perceptions of the students on the utilization of WhatsApp in English Teaching Department classes in the course of the pandemic. The continued spread of the pandemic has caused extended and increased utilization of online media and online learning, lasting longer than previously expected. Using qualitative research involving 270 students subjected to open-ended and close-ended questionnaires, it was determined that the student's perception of the utilization of WhatsApp during the pandemic was largely positive. The online platform was shown to be effective in assisting students to get enthusiastically involved in learning activities, particularly given the platform's capacity to safeguard assessment and evaluation benchmarks, its sharing of material and information, the undertaking of group discussions, and an increasing literation.

On the same note, Babayiğit et al. (2020) examined the practical implications of online learning on students and the opinions of students regarding its use. It is noteworthy that students

who had positive attitudes regarding online learning felt more secure and relaxed. This may be a result of their continued use of online learning facilities compared to those who felt negatively about the same. Similarly, Sahbaz (2020) noted that the Covid-19 pandemic affected learning processes for more than 1.5 billion students across the globe. In “Views and Evaluations of University Students about Distance Education During the COVID-19 Pandemic”, Sahbaz (2020) noted that online learning has become the new normal as populations across the globe strive to minimize the magnitude of impact that the pandemic has had on their lives. In the study, the author aimed at examining the assessments and perceptions of university students toward distance learning in general. Using a questionnaire incorporating 12 open-ended questions in the collection of data, and analyzing the same via conventional content analysis, distance learning was viewed unfavorably by 90% of the respondents. This was predicated on the notion that it was monotonous, an element that eliminated the motivation and enjoyment that is supposed to come with learning and teaching. Of course, these results may have been limited to language learning and might not have included other subjects. Even more noteworthy is the fact that the opposition to distance learning may be emanating from the stressful and unusual atmosphere pertaining to the pandemic period, where the suddenly imposed lockdown process may have subjected the student to undue stress levels. Indeed, it may be acknowledged that the online lessons may not have faced significant opposition if they had occurred during the normal flow of the students’ academic lives.

Further, Epaminonda et al. (2021) examined the experiences of students following the change to online learning due to the Covid-19 contingency plan. They indicated that as much as students still enjoy some elements of online learning, they still perceive face-to-face learning as superior.

Yusnilita (2020) complemented these findings by examining the manner in which online learning brought about the impact on student attainment. It is noteworthy that online learning was found to enhance the students’ confidence. Further, it offered them a practical and flexible manner of learning while also enhancing their activity and creativity.

On the same note, Adnan and Anwar (2020) explored the attitudes of higher education students regarding mandatory distance and digital learning university courses in the course

of the Covid-19 pandemic. The study determined that the applicability of online learning in underdeveloped countries may not generate the necessary results since most students are incapable of accessing the internet as a result of technical and financial issues. The deficiency of face-to-face interaction with instructors, coupled with the absence of conventional classroom socialization and the response time, has a negative impact.

In addition, Rivera-Vargas et al. (2021) examined the experiences of students as well as the manner in which they adapted to the online learning educational model. The findings of the study indicate that there are positive assessments pertaining to the adoption and integration of technological competencies. Further, online education is a responsive model to the emerging needs of learners. The main concerns of students are the institutional and pedagogical support that is offered.

Cook-Chennault & Villanueva (2020) explored the use of online learning on technical courses. Their focus was on perceptions and experiences of sophomore and freshman engineering students when playing serious online engineering games designed to enhance engineering intuition as well as a knowledge of statics. In spite of earlier contentions pertaining to the use of online learning in technical courses, it is acknowledged that the utilization of serious educational engineering games has been on the rise in engineering education, with the aim of assisting students to enhance their technical competencies in the engineering discipline. In the study, it was determined that the design of the engineering software, coupled with the manner in which it is integrated into course grading and assessment of the learning outcomes, would have a bearing on the students’ perceptions of the acceptance, ease of use, and usefulness of the technology as a learning tool. However, this does not undermine the fact that online learning is supposed to safeguard enhanced learning and education of the students. It is noteworthy that the acceptance of inquiry-based education games within a classroom of diverse populations of students is supposed to clearly articulate and link up the objectives of the game to the class curriculum content. On the same note, the authors reiterate the need for enhanced engagement in safeguarding the motivation of the students. This necessitates the incorporation of a multifaceted schema of tools, including feedback on the games as well as explanations of the predictions pertaining to the game. This study links up with previous studies in its incorporation of

information pertaining to the need for more engagement of the students and their enhanced participation. As has been previously stipulated, the lack of motivation among students primarily emanates from the lack of more opportunities for them to participate in online classes.

On the other hand, Ocak & Karakus (2021) sought to comprehend the difficulties that students encountered when undertaking online exams in the course of the pandemic. In “Undergraduate students’ views of and difficulties in online exams during the COVID-19 pandemic,” the researchers acknowledged that online exams differ from face-to-face exams in many ways. Online assessments use more visuals, can be conducted from one center, and offer enhanced ease in the analysis of results. Even more noteworthy is the wide range of questions that can be provided, including multiple-choice questions, matching questions, numbering questions, right-wrong questions, short answer questions, and fill-in-the-blank questions. In the study, which aimed at examining the views of undergraduate students on online exams, it was determined that students usually had technical problems, including sudden log-outs and internet connection problems, that affected their perception of the same. This was worsened by the fact that they were not particularly motivated to undertake online exams, as well as the fact that they did not have sufficient time or even feedback. The basic implication is that educational institutions can customize the assessment processes to enhance the learning process of the students. Of course, online learning is largely in its infancy, with most educational institutions having implemented online education for the first time during the pandemic. In this case, educators can persistently enhance the experience of the students through seeking more ways of engaging them and enhancing their motivation in the long term and the short term.

Al-Salman & Haider (2021) reiterated the need for proactive policies that would safeguard the efficiency of online learning. In “Jordanian University Students’ Views on Emergency Online Learning during COVID-19,” the researchers examined the impact of digital technology, psychological/economic status state, and type of course on the university students’ attitudes toward online learning. Given the multiplicity of barriers that can have a negative impact on the students’ perception of online learning, it is imperative that educational institutions and instructors are provided with sufficient training and internet bundles, even as

they are assisted in the securing of digital e-learning tools. This should be complemented by the enhancement of student social and psychological counseling, as well as academic advising services. The implementation of these measures would come in handy in safeguarding the effective and efficient implementation and adoption of the blended learning system as a transitional phase prior to shifting entirely to online learning.

### *Teachers and Students’ Views*

Teachers and students are the main stakeholders in the education sector, so their perception of the efficacy of online learning would have a bearing on their potential to adopt it in the long term and the short term. In “Acceptance and Usage of Bibliographic Management Software in Higher Education: The Student and Teacher Point of View,” Setiani et al., (2020) noted that behavior intentions and facilitating conditions would have a significant bearing on the utilization of behavior from the perspective of teachers and students in their interaction with online platforms. Indeed, the motivation of students to undertake the utilization of a particular platform is influenced by their having used it in the past or having completed similar tasks, in which case they would have increased self-confidence and motivation to enhance their output in the long term and the short term. The intrinsic motivation would drive the behavior intention from the perspective of the user. This study is fundamental in demonstrating the need for incorporation of ease of use. On the same note, it demonstrates that as much as there may be challenges in the implementation of online learning and even negative attitudes towards the same, the increased utilization of online learning is bound to generate enhanced familiarity in the long term. This is bound to increase the acceptability of online learning. The basic implication is that user acceptance of the utilization of the tools would be affected by their self-confidence, experience, and motivation to generate papers of better quality.

Similar sentiments are outlined in “The Role of Information & Communication Technology in Elearning Environments: A Systematic Review,” where Qazi et al., (2021) noted that ICT continues to play a key role in the development of the learning and teaching of a wide range of subjects. It is noteworthy that the evolution of the internet has allowed for the growth of the web, which has assisted learners and instructors in Islamic education. It is, nevertheless, imperative that institutions strive to implement ICT and IT-

oriented learning methods and tools that are customized to their learning needs. Such tools would need to have varying features that would enhance their efficacy, including efficiency, speedy access, and optimum success in knowledge-gain benefit, not only in terms of the regular disciplines but also in subjects of interest for a particular organization.

Raes (2022), however, does not focus on purely online learning but instead concentrates on synchronous hybrid learning. In the course of synchronous hybrid learning, on-site and remote students would be linked and taught synchronously in a hybrid classroom. Nevertheless, it is imperative that one examines the factors that would affect the efficiency of learning in such a hybrid classroom, particularly in regard to student engagement. It is noteworthy that teaching space would have a bearing on teaching practice. Teachers have noted that actually seeing students was a major advantage of the design of hybrid classrooms and a key motivating factor. On the same note, students indicated experiencing the real-life lecture, as well as having the capacity to interact with the teacher, who can pose a question at any instance, would be a major motivating factor and a determinant of their engagement. This study is fundamental in the determination of the convergence of factors that both students and teachers perceive as important in the learning environment. It is noteworthy that they both perceive more interaction as a motivating factor. Indeed, any online learning platform should strive to ensure that the real-life classroom is replicated as much as possible. This would be achieved by allowing for more participation from the learners and the teachers in the classroom activities. As the study notes, conceptual understanding would not be affected much by the levels of presence (remote and physical). However, the levels of presence would have a bearing on effective engagement, experienced pressure, relatedness, intrinsic motivation, sense of belonging, sense of presence, autotelic experience, and cognitive absorption. The study results support earlier research that had underlined the differences in the experience of the students subject to their participation in either an online or physical learning environment. On the same note, both teachers and students are responsible for enhancing their engagement and motivation. This can be safeguarded through the utilization of the multiplicity of tools that have been provided by the online learning platforms in the long term and the short term.

## Discussion

### *Teachers' views*

There were 16 papers that analyzed the teachers' views toward online learning during the Covid-19 pandemic. Studies that handled this subject discussed different themes related to this topic, which included the teachers' perception and experience with online teaching, the teacher's perspective on the impact of the pandemic on online learning, the teachers' perception of the type of system and tools used for online teaching, and their perception of the difficulties faced when teaching online.

Teacher perception and experience with online teaching are discussed in many of the studies. An et al. (2021), Yeşiloğlu et al. (2021), Kundu and Bej (2021), and Memis (2021) explored teachers' feelings, experiences, and perspectives regarding online teaching during the COVID-19 pandemic. Similarly, Zeichner (2021) assessed teachers' views and their perceptions of ICT. In addition, Erumit (2021) identified the perceptions and experiences of preservice teachers about taking science courses online as part of the teacher education programs during the Covid-19 lockdown. The methodology used varied between studies, where some had used a mixed method of conducting interviews and questionnaires (An et al., 2021; Erumit, 2021; Kundu and Bej, 2021) while others used qualitative (Yeşiloğlu et al., 2021; Memis, 2021) and quantitative methods (Zeichner, 2021).

In general, the results showed a variety of positive and negative perceptions toward online learning among teachers. An et al. (2021) reported that teachers' perceptions toward using online learning show that they had skills in, and were comfortable teaching, online; they express their desire to learn further. At the same time, teachers express some worries related to the lack of student participation and engagement, difficulties in learning and accessing new technology, and other issues (An et al., 2021). Teachers in Yeşiloğlu et al.'s study (2021) also report that they are concerned about online learning; they report many advantages and disadvantages, most notably in the system used for teaching. Erumit (2021) argued that teachers in their study had many expectations, opportunities, concerns, and beliefs concerning the online education process; some of these resolve themselves during the utilization process, while others remain an obstacle for the teachers. Memis's (2021) study results shed light on an important point by noting that there is a lack of a

valid and reliable measurement tool to determine teachers' opinions. The results from Kundu and Bej's study (2021) also noted that it's difficult to assess readiness for online teaching as different subgroups of teachers exist, and this may require different approaches for support and counseling.

Other studies discussed the teachers' perspective on the impact of the pandemic on online learning. Aytaç (2021) and Karakaya et al (2020) have both assessed teachers' views and perceptions related to the impact of the Covid-19 pandemic on online education, using qualitative, respectively. The results showed that teachers have negative perceptions of competency pertaining to economic losses, deficiencies in education, uncertainty, and they have negative views pertaining to poor interactions, technological infrastructure, and unproductivity (Aytaç, 2021). Similarly, Karakaya et al (2020) reported that teachers have both positive and negative views about competencies, distance education, the adaptation of students, and teacher-parent communication. It was also determined that teachers have varying concerns about health, economy, and education. On the other hand, research results have shown that the pandemic process provides positive acquisitions in technology use, awareness, and skill development (Karakaya et al, 2020).

Furthermore, some studies assessed the teachers' perception of the type of system and tools used for online teaching. Goodarzi et al. (2020) evaluated the opinions of teachers toward online teaching of English textbooks in Iranian junior high schools. In addition, Hakami and Hernandez-Leo (2021) used the teacher's views to underline the importance of the careful selection of the system used in online learning. Gerard et al. (2021) also examined how teachers identified and creatively leverage open educational resources (OERs) and practices to facilitate self-directed science learning. The studies relied on the use of quantitative (Goodarzi et al., 2020; Hakami and Hernandez-Leo, 2021), and qualitative (Gerard et al., 2021) methodologies. The results based on Goodarzi et al.'s study (2020), show that teaching textbooks online caused shortcomings in terms of activities, methodology, topics, design, and insufficiency of teaching hours. Hakami and Hernandez-Leo (2021) noted that the online systems and tools used vary considerably and have a potential impact on digital well-being, which can affect psychological well-being, education, work, and community. For example, Gerard et al. (2021) emphasized their difference in the integration of learning and facilitating self-directed science

learning among teachers who use open educational resources (OERs) compared to the typical uses of technology for transmitting information or increasing productivity.

On the other hand, several studies discussed teacher perception of the difficulties faced when teaching online. Gkamas et al. (2019) examined the challenges faced during online learning using BYOD (Bring Your Own Devices). Mailizar et al (2020) and Marčinković et al. (2021) examined the views related to barriers to e-learning implementation during COVID-19 in secondary school mathematics. Aksela and Haatainen (2019) also conducted a study to understand the views of active teachers on the advantages and challenges of Project-Based Learning (PBL). In addition, Kaimara et al. (2021) examined the teachers' perception of barriers to DGB (digital game learning) implementation. The five studies used a combination of quantitative (Gkamas et al., 2019; Mailizar et al, 2020; Marčinković et al., 2021), qualitative (Aksela and Haatainen, 2019), and mixed methodologies (Kaimara et al., 2021). When it comes to the challenges of technologies, the Gkamas et al. (2019) study results showed that BYOD seems to be a promising technology, potentially adding long-term value in teaching and learning. However, a challenge is present in having adequate infrastructure and designing the technology in a secure and efficient manner. Similarly, Aksela and Haatainen (2019) found that the use of PBL was very helpful for teachers and in facilitating online teaching, yet some aspects present challenges such as project organization and time management, technical issues, resources, student-related challenges, and collaboration. Moreover, Marčinković et al.'s (2021) results showed that technology use in remote teaching would be negatively affected by limited internet access and the low digital competencies of families. On the other hand, technology use in remote teaching is positively affected by school experience in virtual environments, communication, school organization, and professional teacher education. When it comes to the most challenging factor, Mailizar (2020) noted that the student-level barrier had the highest impact on e-learning use. In addition, the student-level barrier shows a strong positive correlation with the school-level barrier and curriculum-level barrier. For Kaimara et al., (2021), a major obstacle is the inefficient allocation of available financial resources. According to their study results, resources are required for the supply of up-to-date equipment, devices, and educational software, as well as for the professional development and training of

teachers, school administrators, and policymakers (Kaimara et al., 2021).

### *Students' views*

There were 11 papers that analyzed the students' views toward online learning during the Covid-19 pandemic. Studies that handled this topic discussed different themes related to this topic, which included the students' perceptions and attitudes, the impact of online learning, and their views toward online learning.

Students' perception of technology use and online learning acceptance was discussed in multiple studies among university students and in different countries. The study by Cook-Chennault and Villanueva (2020) analyzed engineering students' perceptions and experiences with playing online, real-time engineering games at an institution in the northeastern United States. Another study in Indonesia by Munir et al. (2021) analyzed how students perceived the use of WhatsApp during the pandemic in English Teaching Department classes. In addition, Adnan and Anwar (2020), Sahbaz (2020), and Durak & Çankaya (2020) evaluated the students' attitudes and perceptions toward digital and distance learning university courses during COVID-19. Moreover, Rivera-Vargas, Anderson & Cano (2021) explored the online learning experience and perception of online education among university students in Spain. Babayiğit et al. (2020) also evaluated the students' perceptions of online learning along with their practical implications.

When it comes to the methodology used in these studies, researchers used variations of methodologies, including the mixed methodology that used both interviews and questionnaires (Cook-Chennault and Villanueva, 2020; Rivera-Vargas, Anderson & Cano, 2021), a quantitative methodology that relied on the use of a questionnaire to collect data from students (Munir et al., 2021; Babayiğit et al., 2020; Adnan & Anwar, 2020), or qualitative methodology that relied on the use of a questionnaire with open-ended questions (Sahbaz, 2020; Durak & Çankaya, 2020). The results show that there is acceptance and utilization of technology as a learning tool among students, yet their perception of the usefulness and the ease of use for these technologies is affected by many factors. For example, the design of the software used in teaching affects the students' acceptance of technology and their perceptions of its usefulness and ease of use (Cook-Chennault and Villanueva, 2020).

Another factor is the presence of technical as well as monetary issues, such as the fact that internet speed has led to the perception of the inability of online learning to produce the desired results (Adnan & Anwar, 2020). As for general views and perceptions, the results from the study by Munir et al. (2021) show that the majority of students (73.2%) show positive views for the use of WhatsApp (WA) in the English Teaching Department, compared to (26.8%) negative views. Similar to Munir et al. (2021), Durak & Çankaya (2020) found positive views among those who use Microsoft Teams and emphasized that the students' fear of changing to online teaching is removed once they started using the online learning methodologies. On the other hand, Sahbaz (2020) reported that almost 90% of the participants are against distance education and are firm supporters of face-to-face interactions. Rivera-Vargas, Anderson, and Cano (2021), though they reported positive evaluations regarding the integration and adoption of technology and online education, noted that the students' perception is affected by the pedagogical and institutional support provided. Similar to that, Babayiğit et al. (2020) reported both positive and negative attitudes toward online learning by students, where those with positive attitudes tend to feel more secure, relaxed, and successful, unlike the pairs with negative attitudes.

Other studies examined the impact of perception of technology on the students' study achievements. Yusnilita (2020) assessed the impact of online learning on students; this study used a qualitative descriptive approach, with surveys as the method to collect the data. The results showed that the majority of the students (90%) answered that online learning is practical for them, 80% reported online learning to be interesting for students, and 65% answered that it was easier compared to regular classes. This positive perception of technology use has positively impacted the students' study achievements, as 85% of students always prepare for their learning by taking notes or recording it, 75% of students feel more confident joining online learning than being face-to-face in class, and 70% feel less disturbed during the class. The results also showed that 60% of students think that online learning could yield high-quality learning, as the teachers are more supportive in terms of accommodating the students and giving them feedback. In summary, Yusnilita (2020) concluded from the students' views that online learning provides a practical and flexible way of learning for students and also makes them more creative and active.



In addition, the studies also involved the students' perceptions of the difficulties of online learning. This theme was assessed in a paper by Ocaik and Karakus (2021), who assessed the students' views of and difficulties with online exams during COVID-19. Also, Al-Salman and Haider (2021) investigated the influence of digital technology, instructional and assessment quality, economic status, psychological state, and course type on Jordanian university students' attitudes toward online learning. Also, a paper by Epaminonda et al. (2021) explored the views and experiences of students after the transition from face-to-face to online learning. The three studies relied on the use of qualitative (Ocaik and Karakus, 2021) and quantitative methodologies (Al-Salman and Haider, 2021; Epaminonda et al., 2021). The results by Ocaik and Karakus (2021) showed that students have mostly technical problems such as internet connection and sudden logout. Moreover, they also encounter different problems such as difficulty in being motivated for online exams, a lack of time, or insufficient feedback. As for Al-Salman and Haider's (2021) study, personal challenges (such as economic and psychological stress), decrease students' willingness to learn online in the future, while the quality of the online experience (including instructional and assessment quality) improve their attitudes toward online learning. The results from the study by Epaminonda et al. (2021) added that the transition to online learning enables students to use digital means they never used before and improve their skills, though not all students are comfortable with the use of this technology, and challenges are presented in terms of the lack of face-to-face interactions and the understanding of the material presented using online tools.

### **Teachers and students' views**

Three papers analyzed the views of both students and teachers toward online learning during the Covid-19 pandemic. The studies handled one theme, which is the students' and teachers' acceptance of and engagement in online learning. Setiani et al. (2020) assessed the student and teacher acceptance of a Bibliographic Management Software (BMS). Another study by Qazi et al. (2021) focused on the opinions and views that are related to the implementation and adoption of ICT, and it also conducted a tweet analysis to look at the available public opinion on social media, e.g., Twitter, that relates to teaching through ICT-based methods. Raes (2022) also investigated the influencing factors of engagement and learning within the new

teaching environments from a student and teacher perspective.

The three studies relied on the use of different methodologies such as quantitative methodology (Setiani et al., 2020), systematic reviews (Qazi et al., 2021), and mixed methodology (Raes, 2022). The study results from Setiani et al. (2020) found that the use of technology has been accepted in student and teacher points of view. In addition, the study confirmed that behavior intention and facilitating conditions significantly influence the use of behavior from the student and teacher point of view when interacting with online platforms. As for Qazi et al. (2021), their findings suggest that ICT-based teaching methods in a research context require more attention. Lastly, Raes (2022) reported many important findings. In terms of the student perspective, Raes (2022) did not find any significant differences between physical and remote presence regarding conceptual understanding, yet significant differences were found in regard to effective engagement in favor of the on-site students and remote students having the opportunity to interact. In addition, the results showed that successful learning and teaching activities are interrelated with set, epistemic, and social design decisions. Moreover, teachers perceive students as a major advantage of the design of a hybrid classroom and a key motivating factor (Raes, 2022).

### **Conclusion and Recommendations**

In conclusion, online learning has become increasingly important in contemporary society, particularly given the disruptions by the Covid-19 pandemic. It is noteworthy that more than 1.5 billion students across the world have been affected by the pandemic, with their learning being disrupted. Nevertheless, online learning has taken up the mantle, with the assistance of digital technologies and the increased penetration of the internet in contemporary society. As much as this new technology may be effective in enhancing learning, the lack of motivation, coupled with its negative effects on social relations and engagements of students, can have a negative impact on perception.

This study presented a systematic review of online learning during the COVID-19 pandemic from teachers' views, students' views, and teachers' and students' views. The review process was conducted using the systematic literature review guidelines of 30 studies. The analysis criteria on the selected studies were classified into three thematic groups: online

learning from the teachers' view, students' view, and teachers' and students' view. The previous studies showed the importance of online learning, especially with schools being in lockdown all over the world. It was essential in this study to discuss the methodologies applied in these studies as well as the findings.

Teachers and students both agreed on the importance of the design of implementing online learning. Studies showed the advantages of using online learning, as well as positive attitudes and perceptions from both teachers and students. However, different challenges were recorded in these studies of online learning during the Covid-19 pandemic. The results of the study revealed a lack of discussion about the teachers' and students' views toward online learning during the Covid-19 pandemic. A further empirical investigation is crucial to better understand the impact of online learning practices and uses.

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## Communicative failures of ukrainian speakers in learning german

### Комунікативні девіації носіїв української мови у вивченні німецької мови

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#### Abstract

The article analyzes communicative deviations that occur during the communication between German native speakers and non-native speakers, particularly Ukrainians. Despite existing intercultural and sociolinguistic studies, the analysis of language specificity that causes communicative deviations, failures and misunderstandings remains relevant and understudied. The purpose of this article is to identify and explore the German language peculiarities that cause misunderstandings in communication for non-native speakers, in particular Ukrainian speakers, and offer the algorithm for the representatives of different ethnic communities to help them avoid and resolve possible conflicts given the study of German as a foreign language. The status of the concept of communicative deviation in intercultural communication under conditions of insufficient communicative competence is determined in this article. The study uses the term communicative deviation in favor of a generalized term, a broad concept of linguistic, speech and communicative deviations in dialogic speech, in particular between native German speakers and non-native speakers. The empirical research was based on the speech activity of Ukrainian students during classes at the Department of German Studies and Translation (levels B2–C1) of Ivan Franko National University of Lviv in 2019–2021 academic years

#### Анотація

У статті проаналізовано комунікативні девіації, які виникають під час спілкування носіїв німецької мови з носіями, зокрема українцями. Попри існуючі міжкультурні і соціолінгвістичні студії актуальним і малодослідженим залишається аналіз саме мовної специфіки, яка спричиняє комунікативні девіації, невдачі і непорозуміння. Метою публікації є виявити і дослідити особливостей німецької мови, які викликають непорозуміння у спілкуванні для носіїв німецької мови, зокрема українськомовних, та запропонувати алгоритм для представників різних етнічних спільнот, який допоможе їм уникнути та розв'язати можливі конфлікти. Визначено статус поняття комунікативної девіації у міжкультурній комунікації за умов недостатньої комунікативної компетентності. Використано термін “комунікативна девіація” на користь узагальненого терміна, широкого поняття мовних, мовленнєвих та комунікативних відхилень у діалогічному мовленні, зокрема між носіями та носіями німецької мови. Емпіричне дослідження ґрунтувалося на мовленнєвій діяльності українських студентів під час занять на кафедрі міжкультурної комунікації та перекладу та кафедри німецької філології (рівні B2–C1) Львівського національного університету імені Івана Франка у 2019–2021 роках, визначеннях з Універсального словника німецької мови Дудена, матеріалах, відображених у підручниках, навчальних посібниках і в

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and definitions from the Universal Dictionary of German Duden, in addition to the materials reflected in textbooks and teaching manuals as well as from authentic German-language sources. Communicative deviations are identified and analyzed in phonological, lexical, syntactic and pragmatic aspects.

**Keywords:** communicative deviation (failure), German as a foreign language, Ukrainian language, communicative competence, intercultural communication.

## Introduction

Modern communicative linguistics actualizes the study of fundamental and universal concepts that have already been in the focus of linguistic research and among which the phenomenon of communicative deviations remains most controversial particularly in intercultural communication.

The relevance of the topic is determined by its focus on formulating recommendations for preventing communication failures and, as a result, achieving cooperative balance between speakers in intercultural communication given the realia, norms, conventions, maxims and rules of interpersonal and group communication.

The purpose is to identify and explore the German language peculiarities that cause misunderstandings in communication for non-native speakers, in particular Ukrainian speakers, and offer the algorithm for the representatives of different ethnic communities to help them avoid and resolve possible conflicts given the study of German as a foreign language.

## Literature Review

Generally, two main approaches to the phenomenon of communicative deviations (Hinnenkamp, 2014; Deppermann, & Cindark, 2018; Deppermann, & De Stefani, 2019; Deppermann, & Helmer, 2013; Dyakiv, 2019; Kayumova, Safina, & Nefedova, 2019; Li, Zhong, & Mo, 2020; Mustajoki, 2012) have emerged: interdisciplinary and specialized.

Interdisciplinary approach, extending beyond the very linguistics is reflected in philosophy, psychology, conflictology, journalism, culturology, what is particularly important for the present research – in intercultural communication (Ehrhardt, & Heringer, 2011; Földes, 2006; Földes, & Furmanova, 2020; Földi, 2020; Riehl, Kretzenbacher, Hajek, & López,

автентичних німецькомовних джерел. Виявлено і проаналізовано комунікативні девіації в фонологічному, лексичному, синтаксичному та прагматичному аспектах.

**Ключові слова:** комунікативна девіація (невдача), німецька мова як іноземна, українська мова як іноземна, комунікативна компетентність, міжкультурна комунікація.

2020), in pedagogy (Busch, 2003; Chernyavskaya, 2020), methodics and didactics (Brintzer, Hantschel, & Kroemer, 2016; Cherubim, 1986; Rösler, 2012; Rösler, 2013).

Specialized approach is reflected in theoretical linguistics (Arutyunova, 1987; Gordevskij, 2000), cognitive (Dubtsova, 2014; Selivanova, 2000), discourse and text linguistics (Milchenko, 2011), communication studies (Ruda, 2007; Slavova, 2000), psycholinguistics (Pshenychna, 2011; Yanovets 2014), sociolinguistics (Hinnenkamp, 2014) and contrastive linguistics (Cherniukh, 2014).

## Methodology

Communicative deviation are understood in a broad sense as an umbrella term for linguistic and communicative obstacles; the most common concept associated with different types of deviations in relation to the actual language norms, speech conventions, maxims of communication, interaction strategies, implications and implicatures of discourse (and other factors).

In a narrow sense communicative deviation is: 1) a difference, discrepancy in the expectations of communicators, caused by the addressee, the addresser or communication noise, which is a deviation for one of the communicators; 2) a communicative failure (an absolute synonym). This scientific description is developed against the background of such related concepts and terms that may be the causes of deviations: 1. Communicative obstacle (or deviation) is a deviation from the norms of cooperative communication, which is not always a failure, but may be one of its causes; hyponym for failure. 2. An error is a violation of the established lexical-grammatical and syntactical-stylistic norms of a certain language.

The study uses the term communicative deviation in favor of a generalized term, a broad concept of linguistic, speech and communicative deviations in dialogic speech, in particular between native German speakers and non-native speakers. Because one of the tasks for the representatives of different ethno- and linguocultures is to form intercultural competence and gain necessary knowledge about various peoples and cultures in order to avoid interethnic and intercultural conflicts and create comfortable environment for communication in different spheres and life situations (Manakin, 2012: 10).

Systematization of scientific literature on the researched issue allows to assume that the study of communicative deviations as a phenomenon is substantial to foreign language learning. Considering that current method of foreign language teaching is directed towards forming students' foreign language competence for direct and indirect intercultural communication, the cultural knowledge of the country whose language they are learning is an indispensable component for foreign language education. Mastering foreign language intercultural communicative competence (Byram, & Wagner, 2018; Savignon, & Sysoyev, 2005) involves: recognition and appreciation of one's own and others' multiplicities; ability to respond flexibly in unpredictable communicative situations; ability to respect national values of other culture; tolerance to culture-specific peculiarities of communicative behavior of other.

Intercultural communication skills are an important component in avoiding incomprehensible and atypical situations, failures and misunderstandings. Therefore, foreign language competence includes:

- knowledge of existing cultural differences,
- perception (but not evaluation) of these differences,
- ability to recognize intercultural misunderstandings,
- discussion of intercultural misunderstandings,
- resolving intercultural conflicts,
- exclusion of assessment of a person on the basis of their culture (Brinitzer, Hantschel, & Kroemer, 2016: 102).

Communicative linguistic competence in general comprises several components – linguistic, sociolinguistic and pragmatic – each of which primarily includes declarative knowledge, as well as skills and procedural knowledge.

1. Linguistic competence includes lexical, phonological and syntactic knowledge and skills and other dimensions of language system, regardless of sociolinguistically determined variations and their pragmatic function in the use of language. This component of communicative language proficiency is related not only to the volume and quality of one's declarative knowledge but also to cognitive organization and the way the knowledge is stored. We can assume that cognitive organization of the vocabulary and idioms storage etc. depend, among other things, on cultural peculiarities of a language community or communities where a person grew up and communicated and where their studying occurred.
2. Sociolinguistic competence is determined by sociocultural conditions of language use, particularly rules of courtesy; norms that regulate relations between generations, genders, social classes and groups etc.
3. Pragmatic competence regulates functional use of language resources (language functions, speech acts) by means of interactive scenarios. They also include discourse competence, cohesion and coherence as well as the identification of text types.

However, pragmatic competence involves understanding language norms in different language communities and cultures. Therefore, we consider it appropriate in our study to include sociolinguistic competence in pragmatic, since we are dealing with a foreign language and therefore pragmatics is due to sociolinguistic specifics.

According to “Common European Framework of Reference for Languages: Learning, Teaching, Assessment” (CEFR) foreign language classes should promote the development of intercultural skills and know-how that are specified as:

- the ability to bring the culture of origin and the foreign culture into relation with each other;
- cultural sensitivity and the ability to identify and use a variety of strategies for contact with those from other cultures;
- the capacity to fulfill the role of cultural intermediary between one's own culture and the foreign culture and to deal effectively with intercultural misunderstanding and conflict situations;
- the ability to overcome stereotyped relationships (Council of Europe, 2001: 104–105).

Further we suggest the analysis of communicative failures that occur in the process of learning German as a foreign language or during communication with native speakers of different languages, particularly German and Ukrainian, and cause mistakes and misunderstandings in communication. We shall specifically concentrate on phonological, lexical, syntactic and pragmatic aspects, which enabled the typology of deviations and structured approaches to their study and analysis.

Intercultural discrepancies are reflected in various language pictures of the world. The proposed research explores them through the prism of Ukrainian worldview. The empirical research was based on the speech activity of Ukrainian students during classes at the Department of German Studies and Translation (levels B2–C1) of Ivan Franko National University of Lviv in 2020–2021 academic years and definitions from the Universal Dictionary of German Duden (Duden, 2021), in addition to the materials reflected in textbooks and teaching manuals (Dyakiv, 2015; Ferenbach, & Schübler, 2017; Koithan, & Schmitz, 2016a, b; Koithan, & Schmitz, 2015a, b; Stang, 2018; Strank, 2010) as well as from authentic German-language sources (DAAD, 2021; Deutsche Welle, 2021; Goethe & aktuell, 2021).

The methods used in research include observation method, descriptive method and structural-semantic method of deviant lexical units analysis based on vocabulary definitions, contrastive method to juxtapose normative and deviant language units taking into account sociocultural peculiarities.

The analysis uses materials from online and offline German and translation classes where 50 German studies students and 50 translation students from the 3rd, 4th and 5th years of study took part and were interviewed about, what kind of failures are typical and most frequent in their communication in German.

A survey, in which the students were asked what poses challenges in learning German as a foreign language and leads to confusion and misunderstandings, helped to identify the most common types of communicative deviations in percentage terms (interviewees had several response options). We offer their detailed analysis in the following section.

## Results and Discussion

Given the presence of a significant amount of research on linguistic and country studies and methodics along with didactics of foreign language learning, aimed primarily at information acquirement in the fields of geography, economics or art, the linguistic aspect of communicative deviations remains understudied. There is also a lack of studies that would be adapted specifically for Ukrainians learning German, as the task of intercultural communication is to teach how to apply theoretical knowledge in practice, to communicate with native speakers, to understand and analyze other culture and thus to avoid communicative failures and deviations.

Professional experience in working with German studies students and students studying translation as well as analysis of existing works on German as a foreign language and our own teaching materials allowed to identify and explore the specifics of communicative deviations that occur in the following aspects:

### Phonological aspect

The foundations for the formation of foreign language phonological competence (Borysko, 2011; Hirschfeld, & Siebenhaar, 2013), which involves mastering all sounds and sound combinations, stress, rhythm and intonation of simple and complex sentences, are laid primarily at the levels of A1–B1+. However, phonetic skills require further improvement at levels B2–C1 which will contribute to the correct pronunciation of speech, clear transmission of the content of the statement and the expression of attitude to the addressee or the subject of the conversation. Difficulties that arise in the process of learning foreign phonetic material are primarily related to interlingual and intralinguistic interference leading to phonetic and phonological errors, the former of which rarely cause misunderstanding, but change the sound quality and create accent, and the latter distort the content.

The observation of the pronunciation of Ukrainian students studying German as a first foreign language at the B2–C1 levels revealed the following violations of the phonetic arrangement of speech that lead to complete or partial misunderstanding of the utterance by the participants of communication:

1. Violation of the rules of German vowels length and shortness that leads to a change in

- the meaning of the word (92% of the interviewees). For example, the length of vowels influences the meaning in such word pairs as: Beeren – Bären, Bieten – bitten, Beet – Bett, fühlen – füllen, Höhle – Hölle, Kahn – kann, Miete – Mitte, Saat – satt, Rate – Ratte, Schal – Schall, Wahn – wann etc.
2. Pronunciation of a vowel sound at the beginning of a word without a glottal stop which serves to articulate the separation of semantic parts in German compound words and helps to recognize their meaning (24% of the interviewees): Spiegelei, Ehrenamt, Verantwortung, beiphonen etc.
  3. Incorrect pronunciation of monophthong [ŋ] as a combination of sounds, n “and”, which complicates the distinction between [ŋ] and [ŋk] (29% of the interviewees): bang – Bank, Engel – Enkel, Klinge – Klinke, singen – sinken, Tang – Tank, Zangen – zanken etc.
  4. Incorrect stress in compound words that occurs due to wrong distinction between denoting and denoted (main) parts of a compound (73% of the interviewees). Given that the disparity between word stresses is greater in German than in Ukrainian reading compound words incorrectly leads to misunderstanding of such seemingly simple words as: Blumen-topf-erde pronounced as Blumento-pferde, Antrag-steller as Antrags-teller, Kur-ort as Ku-rort. Additionally, false analogies with Ukrainian language cause incorrect stress in words of foreign origin: Kino – кінó, Taxi – таксі, Auto – автó, Landschaft – ландша́фт, Rucksack – рюкза́к, Butterbrot – бутербро́д etc.
  5. Mismatch between speaker's intonation and communicative intention of the utterance (21% of the interviewees). For instance, incomplete drop of tone in German imperative sentences creates an intonation of politeness, so an abrupt drop of tone, which Ukrainian students mistakenly use in requests, is perceived as being rude.

### Lexical aspect

It is with lexical peculiarities that non-native speakers tend to have the most problem. Following groups can be distinguished here:

1. Lacunar vocabulary (86% of the interviewees) – the vocabulary that does not exist in person's first language. According to F. Batsevych, lacuna is a lack of lexical equivalents in one of the languages that are being studied or compared (in first or foreign), they usually involve words denoting national, historic and cultural

realia, “cultural items” (Batsevych, 2007: 97). Lacunae are commonly the reasons why communicative failures, mistakes and misunderstanding occur during communication.

For Ukrainians who study German as a foreign language lacuna as a phenomenon manifest themselves in the following vocabulary:

- a) forms of family structure (Wochenendfamilie, Patch work familie, Einelternfamilie, Pflegefamilie, Wohngemeinschaft);
- b) types of housing (Baumhaus, Jugendherberge, Plattenbau, Fachwerkhaus, Ferienwohnung, Wohnmobil, Hütte);
- c) holidays (Heilige Drei Könige, Rosenmontag, Aschermittwoch, der Fasching, Karneval, Fastnacht, Festzug, Frühlings-, Sommer-, Herbst-, Winteranfang, Gründonnerstag, Karfreitag, Sternsinger-Umzug, die 5. Jahreszeit, Oktoberfest, Erntedank, Tag der deutschen Einheit, Weltpartag, Martinstag, Buß- und Bettag, 1.– 4. Advent, Silvester etc.);
- d) greetings and wishes (Frohe Ostern! Frohe und gesegnete Weihnachten! Hals- und Beinbruch! Viel Glück! Guten Rutsch ins neue Jahr! Gesundheit!) in particular the manner to respond in the same way to greetings during Christmas and Easter (Frohe Weihnachten! – Frohe Weihnachten! Frohe Ostern! – Frohe Ostern!);
- e) symbols of good and bad luck (Schornsteinfeger / Kaminkehrer, schwarze Katze, die von rechts nach links / von links nach rechts läuft, Glücksschwein, Glückspfennig, Scherben, vierblättriges Kleeblatt);
- f) educational institutions (Hort, Realschule, Hauptschule, Gesamtschule);
- g) some ways to characterize people and realia (Glucke, Schwarze Witwe, Partylöwe, Nesthocker, Hotel Mama, Flitterwochen, Elternzeit) etc.

2. Language variations (German: Varietäten) (97% of the interviewees). Taking into consideration the fact that German is a pluricentric language, which has its variations in Germany, Austria and Switzerland, the differences / inconsistencies in meaning of words in each country pose challenges to those who study German (for example, in Germany and Austria): Kartoffeln – Erdäpfel, Tomaten – Paradeiser, Aprikose – Marille, Pflaumen –



Zwetschgen, Stuhl – Sessel, Freund – Kollege.

Regional variations also include greetings that can lead to a misunderstanding between German native speakers from different regions, not to mention Ukrainians who study German as a foreign language. Thus, forms of greeting, despite being considered clichéd and standardized speech acts, vary not only in German-speaking countries but also within particular regions of Germany:

Northern Germany: Hallo, Moin, Mahlzeit, Tschüs;

Northern and Western Germany: Guten Tag, Hallo, Grüß dich, Auf Wiedersehen, Tschö;

Southern Germany: Guten Tag, Hallo, Grüß Gott, Servus, Auf Wiedersehen, Tschüs, Grias di (Grüß dich), Habideri (Habe die Ehre);

Austria: Grüß Gott, Servus, Auf Wiederschauen, Grias di (Grüß dich), Habideri (Habe die Ehre);

Switzerland: Grüezi, Salü, Ade, Adieu, Auf Wiederluege, Bis dann, Bis bald, Tschau, Wir sehen uns.

3. Dialectisms (94% of the interviewees). This mostly concerns phraseology and cooking vocabulary. For instance, *деруни* (*deruny*) / *Kartoffelpuffer* have different names depending on the regions of Germany or the country (Austria, Switzerland): *Kartoffelpuffer* or *Reibekuchen* (Nord- und Westdeutschland, auch in Pommern und Schlesien), *Bagger* (Franken), *Bambes*, *gebackene Glies*, *Buttermilchglies* (Vogtland), *Flinsen* (Ostpreußen), *Kartoffelplätzcher* or *Panneläppcher* (Süd Hessen und Siegerland), *Reiberdatschi* or *Erdäpfelpuffer* (Bayern, Österreich), *Dotsch* (Oberpfalz), *Rievkooche* (Rheinland), *Grommbierkischeljer* (Saarland), *Kartoffelklitscher* (Obersachsen), *Grumbeerpannekuchen* (Pfalz), *Erbelkrebber* (Hessen), *Krumbirnpöngeli* (Unterfranken), *Ballnklöß*, *Franzkung* (Oberfranken), *Baggerla* (Frankenwald and Hofer Land), *Herdöpfelpuffer* (Markgräflerland), *Dädsch* (Landkreis Coburg), *Datsch*, *Detscher* (nördlicher Thüringer Wald), *Erdäpfelkrapferl* (Österreich), *Härdöpfelchüechli*, *Härdöpfeldätschli* (Schweiz).

Regional variations or similar to this example are also: *Dibbelabbes*, *Döppekooche*, *Fratzen*, *Klitscher*, *Latkes*, *Pillekuchen*, *Rösti*, *Pickert* or *Riewekooche*.

4. Toponyms that sound different than geographical names in the native language (48% of the interviewees), in particular in Ukrainian:

Ärmelkanal – Ла-Манш, Böhmen – Богемія, Bozen – Боцен, Breslau – Вроцлав, Kreta – Крит, Danzig – Гданськ, Erzgebirge – Рудні гори, Genf – Женева, Georgien – Грузія, Karlsbad – Карлові Вари, Kapstadt – Кейптаун, Laibach – Любляна, Lemberg – Львів, Lettland – Латвія, Litauen – Литва, Mailand – Мілан, Mähren – Моравія, Nordsee – Північне море, Ostsee – Балтійське море, Pazifik – Тихий океан, Pjöngjang – Пхеньян, Plattensee – Балатон, Posen – Познань, Pressburg – Братіслава, Siebenbürgen – Трансільванія, Slowakei – Словаччина, Stettin – Щецин, Venedig – Венеція, Weichsel – Вісла, Zypern – Кіпр.

5. Exclamations (62% of the interviewees). One of the seemingly simple issues (since it is studied at elementary level) but no less important is the problem of exclamations in German language due to their ambiguity (for example *Hey!* *Hopp!* *Igitt!* *Oh-Oh!* *Oh Gott!* *Oje!* *Pfui!* *Ui!* *Boah!* *Ach!* *Brr!* *Au!*). Since exclamations only signal feelings, emotions, mood or expression of will, it is difficult for non-native German speakers to understand their meaning correctly or to use them adequately as an automatic reaction in spontaneous spoken language. Thus, the exclamation “*Au!*” in German can express pain: “*Au, das tut weh!*” or joy: “*Au [fein], das macht Spaß!*”; in a figurative sense “*Au!*” is used as a reaction to a bad joke (Duden, 2021). The equivalent to German “*Pfui!*”, that expresses disgust is Ukrainian “*Фу!*”: “*Pfui, wie es stinkt!*” – “*Фу, як смердить!*”. But if in Ukrainian language the same exclamation is used to express a feeling of relief after fatigue or hard work (e.g. “*Фу, нарешті все зробила!*”), in German language such usage is unacceptable.
6. Color terms (53% of the interviewees). Another aspect of substantial differences in both ethnolinguistic cultures concerns color terms that have different symbolism, connotation, pragmatic potential and thus can form various phraseologisms. The verbalization of color terms in phraseological expressions is used as an attribute of distinct prototypes of both ethnolinguistic cultures. According to V. Manakin, “*Connotations of color terms contain interesting information about the*

most stable (subconscious) visual tastes of color perception which distinguishes each national culture and which are reflected in the language and other ways of identifying national character and mentality” (Manakin, 2012: 164). Phraseologisms that use such color terms as black, red, white, yellow and grey mostly correspond symbolically in both linguocultures, the difference lies in the usage of such color terms as yellow and sometimes green, and color terms like blue and green tend to be lacunae.

Color symbolism examples in German linguoculture that differ from Ukrainian are presented below (Dyakiv, 2018: 247–258):

Regenbogenpresse – жовта преса, бульварна преса,

der gelbe Neid – чорна заздрість; sich grün und blau / grün und gelb ärgern – дуже злитися, jemandem nicht grün sein – не переносити когось на дух, [das ist] dasselbe in grün – це – те саме, einen grünen Daumen haben – мати легку руку у догляді і вирощуванні рослин, der Grüne Donnerstag – чистий четвер etc.;

blau sein – бути напідпитку, blau machen, blauen Montag haben – прогулювати, alles himmelblau sehen, blauäugig sein – бути наївним, blau reden, das Blaue vom Himmel versprechen – брехати, mit einem blauen Auge davonkommen – легко відбутися, vom blauen Affen gebissen sein – бути не при собі;

es geht mir lila – у мене справи посередньо, так собі;

er war braun – переконаний націонал-соціаліст, ein Brauner – чорна кава;

eine weiße Weste haben – не мати боргів, der weiße Tod – смерть від лавини, der Weiße Sonntag – Провідна неділя, der weiße Sport – зимовий вид спорту;

graue Händler – нелегальні торговці, das graue Elend haben – бути нужденним, das ist nicht grau und nicht grün – ні те ні се;

jmdm. nicht das Schwarze unter dem [Finger]nagel gönnen – зневажати, ins Schwarze treffen – влучити в десятку, das Schwarze Brett – дошка оголошень;

rosige Zeiten – безтурботні, веселі часи, etw. in den rosigen Farben schildern – зображати щось у яскравих барвах;

sich eine goldene Nase verdienen – бути багатим, mit einem goldenen Löffel im Mund geboren sein – мати легке життя, Goldener Sonntag – остання неділя перед Різдом.

7. Numerals (91% of the interviewees). Reading numerals from units to tens creates a lot of misunderstandings for Ukrainian

speakers who learn German. It should also be noted that often students do not distinguish between dates (im Jahr nenzehnhundertsiebenundfünfzig – у 1957 році) and number of objects or amounts (for example,

eintausendneunhundertsevenundfünfzig Tische – 1957 столів) that have a different pronunciation or spelling.

8. Shortening (88% of the interviewees) is a common phenomenon for native speakers, but for those learning German, many abbreviations are not easy to understand, for example: Zivi, Azubi, Kita, Abi, ADAC, AOK, TÜV, ICE, RE, DB, EU, ZDF, WG, GmbH, FAZ, BRD, AStA, BAföG.

9. Complex words or compounds (Bandwurmörter) that cause difficulties in understanding, namely (76% of the interviewees):

Donaudampfschiffahrtselektrizitätenhauptbetriebswerkbauunterbeamtenengesellschaft, Straßenverkehrsordnungswidrigkeitsverfahren, Betäubungsmittelverschreibungsverordnung, Rechtsschutzversicherungsgesellschaften.

However, shorter compounds also cause misunderstandings if the speaker cannot identify the main word, such as: Tischtennis – Tennistisch, Jahrhundert, Kindergartenkinder.

10. Lexico-semantic interference (64% of the interviewees). Interlingual interference is a phenomenon that commonly leads to communicative deviations and misunderstandings caused by "false friends" of a non-native speaker or a translator, to name a few: Akademiker – людина з вищою освітою, Akademiemitglied – академік, Lehrer – вчитель, Hochschullehrer – викладач, Maschine – машина (пристрій, апарат), Auto – машина (автомобіль), eine Ausbildung / Lehre machen – навчатися професії, die Ausbildung – освіта, studieren – вчитися у ВНЗ або детально щось вивчати / розглядати, lernen – вчитися у школі або вивчати мову.

### Syntactic aspect

Syntax plays an important role in a development of foreign language communicative competence, a correct use of syntax makes it possible to build sentences with various intentions, to connect parts of a complex sentence with coordinating and subordinating conjunctions and to express oneself logically and coherently in spoken and written communication. The difficulties that Ukrainian students face in the process of constructing syntactic units in German are primarily related to the transfer of grammatical

structures, rules and norms from their native language. Peculiarities of German syntax that differ from Ukrainian: fixed position of the finite and non-finite part of the predicate in simple and complex sentences; frame structure (German: Satzklammer); the principle of placing modifiers in a sentence by meaning using the tekamolo order (adverbs of time, adverbs of manner, adverbs of place / direction); placement correlation of object in the sentence depending on the method of their expression (noun, pronoun) and the case (dative, accusative); zero position of conjunctions *aber, denn, und, sondern, oder* in compound sentences; change of word order in a sentence due to conjunctive adverbs *deshalb, trotzdem, dennoch, folglich, sonst* etc.; distinguishing between single and repeated actions in the past tense with the help of conjunctions *als* and *wenn* in temporal clause; use of infinitive clauses *um...zu + Infinitiv*, *ohne...zu + Infinitiv*, *statt...zu + Infinitiv* with identical subjects; use of subordinating conjunction *indem* instead of participle etc.

Here are the most common types of violations of syntactic constructions which we observe during the process of teaching Ukrainian students at levels B2–C1:

1. Incorrect placement of the finite part of the predicate in German complex sentence due to incorrect identification of the meaning and position of the conjunction or adverb of the conjunctive nature (96% of the interviewees). In this manner a similar meaning of *denn* and *weil* leads to a false perception of *denn* as a subordinating conjunction: *Er spricht fließend Deutsch, denn er viel übt* instead of *Er spricht fließend Deutsch, denn er übt viel*.
2. Use of the conjunction *wenn* instead of *wann* in indirect interrogative sentences *Ich weiß nicht, wenn er kommt* instead of *Ich weiß nicht, wann er kommt* since they both sound similar in Ukrainian (87% of the interviewees).
3. Misuse of the preposition after proper names in the main sentence and of the relative pronoun in the subordinate attributive clause: *Berlin, in dem ich geboren wurde* instead of *Berlin, wo ich geboren wurde* (56% of the interviewees).
4. Wrong word order in extended attribute constructions (74% of the interviewees): *das verkaufte im vergangenen Jahr Auto* instead of *das im vergangenen Jahr verkaufte Auto*.

5. Omission of *zu* in the structure of the modal participle (33% of the interviewees): *die lösende Aufgabe* instead of *die zu lösende Aufgabe*.

### Pragmatic aspect

Regarding the pragmatic specifics, a significant difference lies in the fact that German linguoculture in comparison with Ukrainian belongs to the low- context cultures (Hall, 1976) that is, those that are characterized by: frank and expressive manner of speech, specificity, directness of questions, a small proportion of nonverbal forms of communication, clear and understandable assessment of all discussed issues, open expression of dissatisfaction etc.

Which is why open, direct communication of German speakers may often seem to Ukrainians as disrespectful and tactless. For example, it is customary for Germans to say *du* to both older relatives and strangers, for the addressee and not the addresser to introduce themselves on the telephone first, and to say *Auf Wiederhören!*, not *Auf Wiedersehen!* It is also important to remember that it is unacceptable to introduce oneself to someone in German using *Frau* / *Herr*, but it is normal to address other people using this form with a surname instead of a name, which is an example of interference.

Native language interference is also manifested in clichéd forms of communication such as: the answer to the question *Wie geht es Dir / Ihnen?* Ukrainians often express a lengthy monologue (53% of the interviewees), although the expected answer should be concise (for example, *Danke, gut*) and with a mutual question (*Und Dir / Ihnen?*), the typical answer is *Sehr angenehm* (дуже приємно) instead of *Freut mich* (84% of the interviewees). Common and frequent errors include misuse of *ihr*-Form (many people, each of whom is close to you, *Duzen*) and *Sie*-Form (one or many people, each of whom is not close to you, *Siezen*) (97% of the interviewees).

Of importance is also the observance of German etiquette and cultural specifics in certain situations, namely: shaking hands when greeting both men and women, asking in advance about the desired gifts for birthdays, weddings, consuming natural products and resources sparingly, keeping receipts, adhering to time framework of the meeting, looking into the eyes of the interlocutor during the conversation and making a toast with *Prost!*, a detailed response

when requested to tell the way, loud nose-blowing, which is not typical for Ukrainians.

Not the least role is played by the distance between the speakers which in German-speaking countries is much greater than in Ukraine (unacceptable closeness to each other in the queue to the ATM, greater distance in transport, etc.). The set of diverse knowledge about the strategies and tactics of communicative behavior brings together and promotes understanding between communicators.

### Conclusions

Given the analysis of the specifics of the German language and the survey of Ukrainian respondents, we can identify the following difficulties in mastering German language communicative competence, which lead to communicative failures of Ukrainian students: 1) phonological (violation of the rules of length and shortness of German vowels, incorrect stress in complex words, inappropriate intonation, incorrect pronunciation of the monophthong [ŋ], vowel sound, mismatch between speakers intonation and communicative intention of the utterance; 2) lexical (language variations, dialectisms, compound numerals, abbreviations, lacunar vocabulary, compound nouns, lexico-semantic interference, exclamations, color terms, toponyms); 3) syntactic (violation of word order in simple and complex sentences, the order of objects, modifiers, incorrect construction and misunderstanding of conjunctions, extended attributes and modal participle); 4) pragmatic (inappropriate form of address, violation of communicative acts of telephone conversation, greetings and farewells, violation of etiquette and norms of communicative behavior in general).

Observations do not claim to be exhaustive but may serve as evidence of the need to study the linguistic, cultural and pragmatic aspects of communication as well as to compare a foreign language with a native one. Undoubtedly, understanding another culture and having meaningful and successful communication requires not only knowledge of the language code but knowledge of the culture in which the language is realized, knowledge of history, traditions and customs of the peoples of German-speaking countries, one needs to know the connection between modern German reality and language and master the system of ideas and views inherent in the native speaker. All these factors form a sufficient communicative competence of speakers in intercultural communication.

The analysis of communicative deviations in terms of contrastive research and intercultural communication is promising taking into account the features of other languages in the comparison.

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## Relationship between Dyslexia and the Academic Performance: Mediating Role of Teacher's Awareness

إعادة النظر في العلاقة بين عسر القراءة والأداء الأكاديمي: الدور الوسيط وعي المعلم

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### Abstract

The academic performance of dyslexic students' needs a lot of attention both from teachers as well as parents. Teachers must be well trained and have the expertise to carefully manage the class of dyslexic students. For this purpose, identifying dyslexic students, classroom management teacher-parent participation and awareness could play an important role in enhancing the academic performance of dyslexic students. The current study aims to investigate the indirect effects of awareness on the relationship between identifying dyslexic students, classroom management teacher-parent participation, and academic performance of students. Nonprobability convenience sampling was used. 372 participants participated in the survey. AMOS-SEM was used for data analysis. Measurement and structural models were developed. It was found that all the scales were found reliable and valid. Moreover, all the direct and indirect relationships were also found positive and significant. Awareness and teacher-parent participation were found most dominant factors on basis of beta values.

**Keywords:** Identifying dyslexic Students, Classroom management, teacher-parent participation, Teacher's awareness, Academic performance.

### نبذة مختصرة:

يحتاج الطلاب الذين يعانون من عسر القراءة إلى الكثير من الاهتمام من قبل المعلمين وكذلك أولياء الأمور لتحسين الأداء الأكاديمي. يجب أن يكون المعلمون مدربين تدريباً جيداً ولديهم الخبرة اللازمة لإدارة فصل الطلاب الذين يعانون من عسر القراءة. لهذا الغرض، تحديد الطلاب الذين يعانون من عسر القراءة، ووعي ومشاركة المدرسين وأولياء الأمور يمكن أن تلعب دوراً مهماً في تعزيز الأداء الأكاديمي للطلاب الذين يعانون من عسر القراءة. تهدف الدراسة الحالية إلى استكشاف الآثار غير المباشرة للوعي على العلاقة بين تحديد الطلاب المعسرين قرائياً، وإدارة الصف ومشاركة المعلمين وأولياء الأمور، والأداء الأكاديمي للطلاب. تم استخدام أخذ العينات الملائمة غير الاحتمالية. شارك 372 شخصاً في هذه الاستبيان. تم استخدام AMOS-SEM لتحليل البيانات. تم تطوير نماذج القياس والهيكلية. وقد وجد أن جميع المقاييس موثوقة وصالحة. علاوة على ذلك، وُجدت جميع العلاقات المباشرة وغير المباشرة إيجابية وذات مغزى. ووجدت الدراسة أن الوعي ومشاركة المعلمين والآباء أكثر العوامل المهيمنة على أساس قيم بيتا.

**الكلمات الرئيسية:** تحديد الطلاب الذين يعانون من عسر القراءة، إدارة الفصل الدراسي، مشاركة المعلمين وأولياء الأمور، وعي المعلم، الأداء الأكاديمي.

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## Introduction

Learning disability among students is the most debated issue that impedes their learning and causes lower academics and grades (Hamalainen et al., 2013). The students in Khyber Pakhtunkhwa come to schools with English language deficiency, especially female students with less exposure due to socially restricted environments i.e. social, cultural, and religious bars. Therefore, the learning ability of these students to follow the instructions in other than their mother tongue i.e. Pashto to English is very limited. Dyslexia is a learning disability. Students with learning disabilities face difficulties in spelling, writing, and pronouncing words in a language other than the mother tongue. It affects individual life (Plakas, van Zuijen, van Leeuwen, Thomson, & van der Leij, 2013). Though exact causes of learning disability are not clear until now, however studies on anatomy and brains link it to neurotically/sensory deficiencies. Dr. Reid Lyon (1995) chief of the Child Development and Behavior Branch of the National Institute of Child Health and Human Development at the National Institutes of Health defined learning disability as an “explicit language-based disorder result into difficulties of a single word decoding, typically reflecting lack of phonological processing”. He further reported that “these issues in single word decoding are generally related to the age, cognition and academic abilities. Thus, dyslexia is demonstrated by in constant strain with diverse forms of language as well as problems with reading, writing, and spelling” (Soriano-Ferrer, & Echegaray-Bengoa, 2014). The impact of dyslexia varies from person to person dependent on the intensity of circumstances and time factors inter alia efficacy of the teaching or remediation (Carreker, Joshi & Boulware-Gooden, 2010). The main difficulty includes word recognition and reading fluency, spelling, and writing. These problems are often difficult to be identified and recognized and may result in numerous problems for students hence results in lower grades/performance of students however, the effects of dyslexia reach well beyond the institution and classroom (Fletcher & Reschly, 2005).

The students who enjoy reading or those who are involved in a project that lies in the area of their interest prefer the printed words, as these are friendly and easy to comprehend, however, on other hand, there are several students, who consider the text as a threat and try to avoid interacting the printed books (Boets et al., 2011). It is very hard for them to read and extract meaning and information from such books.

Moreover, has identified that teachers are usually unaware or do not acquaint with required skills during their training to get command on how to teach to students with Dyslexia (Pennington et al., 2012). Though, despite efforts by the teacher, it is impossible to give a response to each need of the individual student, while he or she is teaching a whole class with more than 30 to 50 students. There are several factors responsible for the issue under study, some of them could be easily pinpointed while, some are impossible because of the complexity that does not associate with a learning disability (Plakas et al., 2013). Hale et al., (2004) believe that teachers could adopt several strategies to brush aside the issue to lend support to the struggling readers within a big class or group. These could improve learners’ reading comprehension, on one hand, simultaneously, these also drive them towards a more inclusive classroom on the other (Fletcher, Reid Lyon, Fuchs & Barnes, 2007). The study aimed to achieve the goals of effective learning and fruitful academic results from the students and to enhance their performance inter alia quality of education and teaching among the female students of Khyber Pakhtunkhwa. This study focused on the issues of awareness and identification of dyslexia among the female students to find the answer to problem understudy i.e. how to solve/ help the female students with dyslexia in secondary schools.

## Literature Review

### Dyslexia?

According to the chronology of the word ‘dyslexia’, it is derived from the Greek ‘dys-’, which means difficulty with, while ‘-lexia’, implies words or language. Experts have found several causes that is why it is difficult to learn, read, write, or spell (Lu, Dapretto O’Hare, Kan, & McCourt, 2009). Yet these difficulties may not be explained easily. On other hand, researchers believe that dyslexia has strong effects on the processing of information (receive, hold, retrieve, and structure) inter alia the processing speed (Bradley et al., 2002). However, dyslexia is considered as an umbrella term, therefore, it becomes more critical to understand the term in its true meaning when it comes to the learning disability of the students. It has been reported by several researchers that dyslexia is not linked to the intellect and it can arise in three different ways i.e. the severe, moderate, or mild, thus no two persons with dyslexia may have the same issue as its impact



on each individual could be different (Donovan & Cross, 2002; Fletcher & Reschly, 2005). Generally, Dyslexia is a particular disorder in the development of language which is associated with a reading disability. Researchers in the field of Etiology have arrived to propose multiple hypotheses that are helpful to diagnose different methods and techniques and to identify symptoms of dyslexia (Kavale *et al.*, 2005). This learning disability emerged from dyslexia include the “difficulty in phonological awareness, phonological decoding, processing speed, auditory short-term memory, language skills, and verbal comprehension or rapid naming”. However, more recently, it is considered as a cognitive disorder, related to reading and speech. Dyslexia is defined by the National Institute of Neurological Disorders and Stroke as “difficulty with spelling, phonological processing (the manipulation of sounds), or rapid visual-verbal responding” (Shaw, Malik & Anderson, 2017). Thus, students with Dyslexia have been identified to be confused with letters and numbers. There are three categories of Dyslexia i.e., Development dyslexia, which is developed during the early stages of the development of the fetus, and it is hormonal, however, it decreases with the growth of a child grows (Saygin, Norton, Osher, Beach & Cyr, 2013). This type is generally found more in boys rather than girls. The second type is that of Trauma dyslexia, it happens if some part of the brain is injured that is responsible for reading and writing, and the third kind is Primary Dyslexia, it continues and does not change with age, and happens because of the disorder in the left side of the brain (Scruggs & Mastropieri, 2002).

### Theoretical Context of Dyslexia

Researchers assert that theories of dyslexia have helped to develop the teaching and learning-related learning methods, tools, techniques, and approaches, yet, this is not always due to change in the contextual factors. It is evident from the review of the related literature that teaching and learning approaches have been emerged and established from the observation and experimentation by the practitioners, this is why one cannot find a straightforward connection between theory and practice, thereby identify a different set of approaches and theories. It has been largely contended that the problems and complications associated with dyslexia are the outcomes of abnormalities (Galaburda, 1999). However, there is no agreement among the researchers on a universally agreed-upon definition of dyslexia neither there is consensus

on its exact causes. Below is the theoretical perspective on dyslexia.

### Neurological Theory

#### *Vision deficit*

The first observation of the dyslexic patients was recorded by a group of physicians and ophthalmologists (Bosse *et al.*, 2007) who used the term blindness to describe and explain this disorder thus first theory of dyslexia has a basis in the visual field as it was assumed that this disorder is exactly deficit of visual perception. This approach was welcomed and widely recognized by researchers during the 1960s, and 1970s. Fischer, Liberman, & Shankweiler (1978) and Arter & Jenkins (1979) shared the same story. Likewise, the theory of Inter-sensory deficit of Herbert Birch and Belmont Lillian (1963) proposed a hypothesis “dyslexics have the difficulty to integrate the information from two or more sensory systems” which received great criticism from Zigmond (1966), he claimed that only experimental data is not helpful to point these differences among the normal readers and person with a disability to read. Stein & Fowler (1982, 1985) in their convergence deficit Visual Theory, asserts that dyslexics’ issues also include eye convergence and binocular control and according to them, it is linked with the neurological deficit that damages effective information processing. Again, these findings were opposed by Newman, Wadsworth, Archer & Hockly (1985) and Bishop (1989). However, the contemporary study that comprehensively addresses the problems associated with dyslexia is that of Spinelli *et al.* (2002), who studied the crowding effects on word identification in developmental dyslexia. Gerhardstein & Rovee-Collier (2002) contends that visual perception plays a significant role however, in the case of visual deficit, dyslexia emerged that affects the learning process of an individual.

#### *Auditory deficit*

Alfred Tomatis, a French researcher in 1960 presented an Auditory Deficits Auditory Transcription deficit theory. He was of the view that dyslexics have difficulty in transcribing the written words into phonological representations, however, he emphasizes mainly the auditory system and ignored the language deficits. Further, Alfred presented his known remediation method that is used in teaching related to ear and motivation of the person with a disability to communicate. Ahissar *et al.* (2000) studied the auditory processing parallels reading abilities in

adults. Amitay *et al.* (2002) worked on disabled readers who suffer from visual and auditory impairments but not from a specific magnocellular deficit. McArthur & Bishop (2001) studied the auditory perceptual processing in people with reading and oral language impairments. McArthur & Hogben (2001) emphasized the auditory backward recognition masking in children with specific language impairment and children with a specific reading disability. Likewise, McArthur, Ellis, Atkinson, & Coltheart (2008) conducted a study on disruption of the neural response to rapid acoustic stimuli in dyslexia and evidence from functional MRI. Steve & Christensen (2002) examined how to enhance the response of the left frontal cortex that slowed down speech in dyslexia. Whereas, Serniclaes *et al.* (2001) worked on the perceptual discrimination of speech sounds in developmental dyslexia. All of them led to the conclusion that an auditory perception deficit /uncorrected auditory deficit, damages the normal process of development of language and speech, thus it causes language and reading deficits. Though it could be one of the causes of dyslexia, yet it is usually omitted to define dyslexia as it lacks specificity (Diehl, Frost, Mencl & Pugh, 2011). Thus, the approaches that claim at it is not an auditory perception deficit, rather it is a deficit in the phonological representation of language that has been widely supported and accepted by these researchers.

### **Brain deficit**

On other hand, the neurobiology and brain structures cerebral dominance by Orton (1937) had found the existence of volatility in the cerebral dominance of linguistic functions including hand and an eye function. According to this approach, the comparative dominance of cerebral hemispheres left being is considered more dominant in the case of language that varies between the normal and that of dyslexic readers (Hari, Renvall & Tanskanen, 2001). However, they believe, if the brain areas responsible for language are balanced amongst both the hemispheres, in such case the dyslexics will depend more on interhemispheric communication (Hari & Renvall, 2001), thus, it slows down the language processing. One more theory namely Cerebellum emerged recently. Nicolson, Fawcett, Brooks & Needle, (2010) study on procedural learning and dyslexia and Brown *et al.* (2001) the preliminary evidence of widespread morphological variations of the brain in dyslexia states that difference in the structure of the brain or malfunction in the cerebellum

(hindbrain) is responsible for dexterity and automaticity. This is very helpful to understand and explain all the indicators of dyslexia. Similarly, Levinson (1994) and Rumsey *et al.* (1997) in their theory on vestibular system advocates that dyslexic's symptoms occur because the deficit in the inner ear since cerebellar-vestibular system tune the outgoing motor signals and incoming sensory signals, whereas its deficit damage the tuning of these signals, thus leads to various kinds of dyslexia. The recent neurobiological research focuses on three distinct areas i.e. molecular to analyze the post-mortem brains, structural by applying the MRI for comparison of morphometry of normal and dyslexic brains, and thirdly, the functional, where working brain is observed through MRI (f-MRI) and positron emission tomography (PET) (Rumsey *et al.*, 1997).

### **Cognitive Theory**

Frith (1986) presented a theory to understand the complexities of dyslexia and termed it "causal modeling framework", which is widely accepted and used, it offers three layers description and is suitable to understand dyslexia, these layers are biological (genetics and neurology), cognitive (information processing), and behavioral (primary characteristics such as reading and spelling). He found that at the behavioral level, the biological and cognitive forces could appear in the form of difficulties in learning to read, phonology, naming, speech development, equilibrium or balance, estimation of time estimation, spelling, phonic skills, memory, and direction of motion. This framework explored and focused that how these disabilities change into learning behavior. Cestnick (2001) recommends proper rejoinders to them by the teachers. Biological theorists on other hand have mainly focused on the genetic factors to identify the genetic basis for dyslexia. They resolute on the heritability of the reading sub-skills and on tracing gene indicators for dyslexia regarding exact chromosomes. The language areas of the brain according to them are based on post-mortem examinations that unveiled variation in the brain structure in individuals with dyslexia (Stoodley, Talcott, Carter, Witton & Stein, 2000). More specifically in the areas of language as compared to the non-dyslexic (Stein, Talcott, & Witton, 2001) identified differences in brain structure i.e. the living brain and active process in it, positron emission tomography (PET), and magnetic resonance imaging (MRI) is used by experts which enables the researchers to identify differences in the structure of the living brain and the active processes within it. Cognitive theorists

believe that though dyslexia could manifest in numerous ways, however, they contend that it could be the result of a phonological deficit, therefore, they emphasize the difficulties during phonological processing and consider it as the basic and ultimate factor responsible for dyslexia in all individuals. Despite these logical arguments, some researchers accept the phonological deficit theory yet they view the phonological problems as only an indication of dyslexia, according to them, the cause of dyslexia is associated with the structure of the brain (Paszkiel & Szpulak, 2018). Tallal, Miller & Fitch (1995) have identified that speed of information processing among the dyslexics is one of the causes of making more mistakes as compared to the normal readers because of their auditory perception tasks that need quick discrimination of the stimulus. It implies that dyslexics have the difficulty in perception concerning the processing speed of information, which might result in phonological deficiency, and it is displayed by dyslexics when reading (Cassandro et al, 2019).

Naidoo (1972) mainly emphasized the memory deficits of dyslexics and identified that they have relatively a smaller storage capacity and it might be due to coding deficiency. Their findings were supported by Cohen & Netley (1981), whereas, Shankweiler and Liberman (1979) thought out that dyslexics' memory deficiency is mainly the reason for disturbing the language information processing, their results were further confirmed by Mann & Liberman (1985). The theories on language and phonological deficiency claim two kinds of deficiencies i.e. language or phonological that spoil the learning to read hence a person with such deficit become dyslexic (Orton, 1937; Liberman, 1971) which results in mistakes and slowness. This theory has great acceptance among the scientific community, yet one has to keep in mind that due to variation of language, the phonologies may also vary for example, among the irregular phonology languages, such as English, dyslexics have been observed to be slower and make more mistakes in comparison to normal readers, while in case of regular languages, like Urdu, Pashto, French, English, or German, dyslexics may be slower readers, however, in such case they are expected to make only certain mistakes and that is too lesser in degree, as the phonological rules are easy for them to learn. The scientific field is replete with studies that mainly focused on the phonological aspect of the learning difficulties, for example, Castles & Coltheart (2004) tried to answer developmental dyslexia and disconnection syndrome. Likewise, Paulesu *et al.*

(2001) investigated the cultural diversity and biological unity of dyslexia. McCrory, Frith, Brunswick & Price (2000) studied the abnormal functional activation during a simple word repetition task among adults. Pugh et al. (2000) worked on the angular gyrus in developmental dyslexia and task-specific differences in functional connectivity within the posterior cortex. also investigated the same and supported the previous results. Gullick & Booth's (2014) study emphasized the individual differences in cross-modal brain activity in developing readers. Thieboutet *et al.* (2014) have found that learning to read improves the structure of the arcuate fasciculus. Sayginet *et al.* (2013) have tracked the roots of reading ability, according to them the white matter volume and integrity correlates with phonological awareness in pre-reading and early kindergarten children. Furthermore, a tractography study of pre-readers at risk for dyslexia was investigated by Vandermosten *et al.* (2015).

Gullickand Booth (2015) specifically focused in his study on the direct segment of arcuate fasciculus is that predictive of longitudinal reading change (Perera, Shiratuddin, Wong & Fullarton, 2017). Gullick & Booth's (2014) paid attention to the hybrid model of attentional control by looking into the new insights in hemispheric asymmetries inferred from TMS research. Likewise, Lu, Dapretto, O'Hare, Kan, and McCourtet *et al.* (2009) investigated the relationships between brain activation and brain structure in normally developing children. Dahaene, Cohen, Morais & Kolinsky (2015) studied the behavioral and cerebral changes induced by reading acquisition among the illiterate to literate. It has been widely researched that automaticity of some assignments is another problematic area that compels dyslexics to pay more attention and concentration as compared to non-dyslexic individuals. According to Nicolson, Fawcett, Brooks, & Needle (2010), lack of automaticity of the primary skills like literacy and numeracy implies that a person with learning difficulty feels hard to process the information and is unable to carry novel and intricate assignments due to processing overload. Therefore, they might need additional practice about any skills if they must attain automaticity which is linked directly to the structure of the cerebellum. Likewise, claim that working memory is used to grasp newfangled information in the individual's mind for a very limited duration before its rejection or transfer to long-term/ permanent memory. The researcher considered this difficulty as one of the significant causes of dyslexia among school children, this

argument was supported by Powell, Stainthorp, Stuart, Garwood & Quinlan (2007). A lot of research is going on in the developed world on the deficits associated with dyslexia, therefore, it is better to understand the cognitive differences.

### Social Interactive Theory

It is the additional level to describe dyslexia, researchers try to find an answer to the question that how society reacts toward dyslexia. Sociologists believe that every society has some unique social values that have a grave impact on dyslexia. These could involve considering some of the learning differences that reflect a deficiency in the learner specifically the literacy difficulty (Puolakanaho *et al.*, 2007). Moreover, it has been reported by Pennington (2006) that there are certain values that prefer some kinds of literacy as compared to other forms thus those have and those who have no access to these forms use some literacy skills as a proxy for intellect and educability, hence people who lack these skills are thought to be foolish and ignorant. Researchers have also found an interesting result while studying the relationship and impact of social values on dyslexia, they recorded that in many developed societies the lack of speedy processing of information is attributed to unintelligence (Shapiro Carroll & Solity, 2013). Though this view accepts the role of biological and cognitive differences and their significance for an individual experience, yet, they contend that perception and values of the society play a more effective role (Le Jan *et al.*, 2011). With this background, now it could be concluded that there is an agreement among theorists on dyslexia? The cognitive theorists assert that dyslexia is the outcome of brain differences that lead toward cognitive differences in information processing which is received by the brain through senses. Thus an individual with dyslexia may find it difficult to a greater or lesser extent to process the information, for example, it could happen during reading and writing, thus it is labeled as a disability. Furthermore, scientists with magnocellular system backgrounds also show consensus and argue that this cognitive deficiency of speed /timing may trigger dyslexia, which could affect the modalities of the brain i.e. visual, phonological, or motor. Similarly, there is also consensus on the physiological basis as manifestations of dyslexia have a physiological basis too (White *et al.*, 2006). They contend that in this regard, brain studies in the future will be fruitful. Other researchers associated with phonological processing difficulties claim that difficulties arising out of the phonological processing are key to dyslexia that exist to a

greater or lesser extent among all the dyslexic individuals.

### Dyslexia: The Pakistani Experience

The word dyslexia is used to understand the incapacity of an individual to learn, read or write (de Santana *et al.*, 2012) where a student faces problems in learning and reading during class lectures particularly poor recognition of words and their use (Bishop & League, 2006), deficiency to recall auditory order of words along with problem to speak, trouble in spellings, visual memory and pitiable perception. For a long, this issue was perceived as a reading disability among the children whose understanding and learning was slow as compared to those in chronological age and intelligence quotient (Shaywitz & Shaywitz, 2004). In Pakistani society in general and the province of Khyber Pakhtunkhwa in particular, it is the pathetic aspect that largely the management of the schools and teachers do not have awareness of their students with a learning disability. Further, they are also deficient in terms of resources for training their teachers to deal with dyslexic students. This can be a great loss to students and society because untreated and undiagnosed students become a great problem for society and affect all educational systems.

Pakistan is a developing country with meager resources to cater to the bread and butter needs of its rapidly growing population. Though Millennium Development Goals (MDG) 2001 states that education is the fundamental right of every person, yet it has been reported by several agencies that the education sector has been failed to show any promising sign of progress since its literacy graph is far behind than its neighboring countries where it's teaching staff is nonprofessional and nonproductive (Zingoni *et al.*, 2021). Elementary and Secondary Education is one of the biggest departments of all in Khyber Pakhtunkhwa. It has more than 168000 employees that constitute 55% of the total employees in the province. In this department 3.9 % of students are enrolled in 28000 schools and more than 1, 19,000 teachers are working in government schools. Though one could find studies to analyze and measure the issue of dyslexia in Pakistan, yet no study could be found for Khyber Pakhtunkhwa province specifically. This signifies the proposed study in hand.

A study conducted by Naeem *et al.* (2014) has tried to observe the existence of particular learning difficulties among the girls' students in

school ranging from grade 3<sup>rd</sup> to 5<sup>th</sup> class. They developed a local instrument to screen out the children. According to results, a total of 75 students out of 200 were found with learning difficulty inter alia emotional problems i.e. anxiety, poor self-image, aggression, and depression, etc. In another study, Ashraf & Majeed (2011) have conducted their research from grade 6 to 8 class in Lahore with a sample of 500 equally divided into two groups i.e. 250 boys and 250 girls in the schools. The ages of the students were ranging from 11 to 17 years. The results highlighted that 5.37% of students out of the total sample were found with dyslexia. However, it was more dominant in the class 6<sup>th</sup> and 7<sup>th</sup> especially in the grade 8 female students and the sad aspect of the findings was that neither teacher nor the parents were aware of how to find and treat the students with learning disabilities. These studies highlight the need to identify dyslexia and address it before its conversion into a problem. However, unluckily most of the teachers have no knowledge, skills, and training to identify it well in time. Though it will not be necessary to have a direct solution, however, in long run it will be essential for teachers that at least they must have command of the areas of learning development and knowledge of the English language especially for those who are working in special education (Soriano-Ferrer & Echegaray-Bengoa, 2014) that could be helpful to recognize a specific aspect of disability and to devise strategies for remedy since recognition, the diagnostic assessment, positive educational experiences, and emotional support are indispensable to help the students with dyslexia.

#### **Relationship between Dyslexia, Teachers Awareness, and the Academic Performance**

The word dyslexia is used to understand the incapacity of an individual to learn, read or write (de Santana *et al.*, 2012) where a student faces problems in learning and reading during class lectures particularly poor recognition of words and their use (Bishop & League, 2006), deficiency to recall auditory order of words along with problem to speak, trouble in spellings, visual memory and pitiable perception. For a long, this issue was perceived as a reading disability among the children whose understanding and learning was slow as compared to those in chronological age and intelligence quotient (Shaywitz & Shaywitz, 2004). In Pakistani society in general and the province of Khyber Pakhtunkhwa in particular, it is the pathetic aspect that largely the management of the schools and teachers do not have awareness of their students with a learning

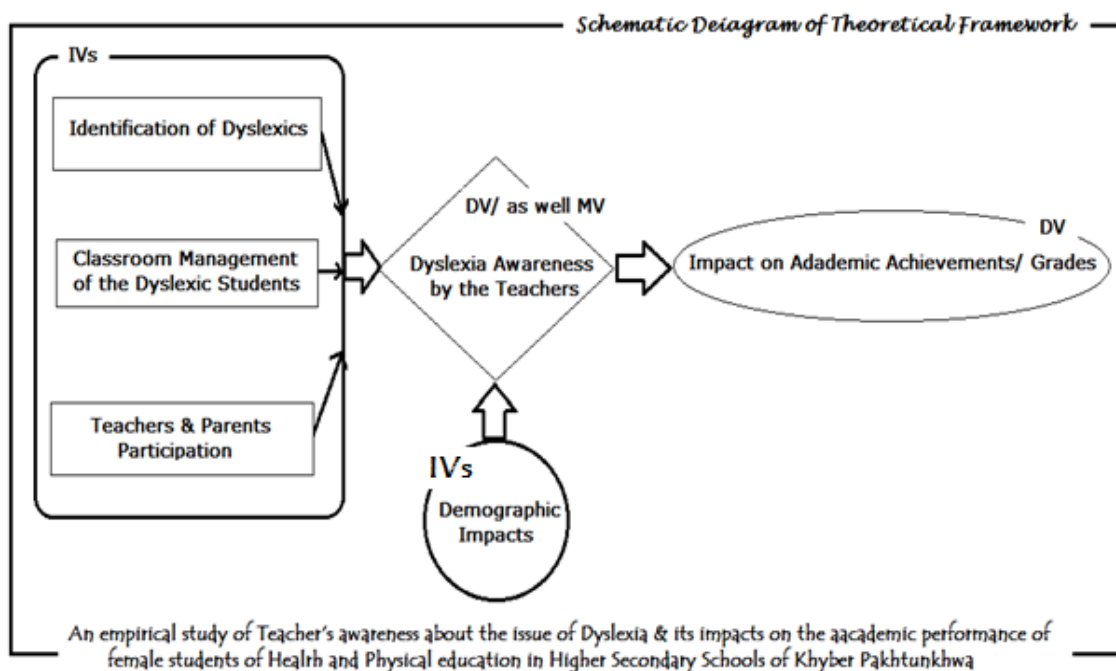
disability. Further, they are also deficient in terms of resources for training their teachers to deal with dyslexic students. This can be a great loss to students and society because untreated and undiagnosed students become a great problem for society and affect all educational systems.

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necessary to have a direct solution, however, in long run it will be essential for teachers that at least they must have command of the areas of learning development and knowledge of the English language especially for those who are working in special education (Soriano-Ferrer &

Echegaray-Bengoa, 2014) that could be helpful to recognize a specific aspect of disability and to devise strategies for remedy since recognition, the diagnostic assessment, positive educational experiences, and emotional support are indispensable to help the students with dyslexia.



**Figure 1:** *Schematic Diagram of Theoretical Framework*

**Source:** Developed by researcher from the review of the literature

H<sub>1</sub>: The predictors and criterion variables and positively significantly associated.

H<sub>2a</sub>: Predictors significantly predict the criterion variable.

H<sub>2b</sub>: Awareness mediates between predictors and criterion variables.

## Method

Since the survey is the most preferred tool for studies like in hand, therefore, this study collected data through structured questionnaires suggested by Cohen et al. (2005) and Sekaran et al. (2016). The main benefit of this technique is that it enables the researcher to collect and compare several variables in the study at the same time. Moreover, the collection of data is less expensive in terms of time and cost, likewise, the researcher can secure the cooperation of respondents since data is collected at one point in time; and finally, the analysis of the data could be done more quickly using statistical software.

## Population and Sampling

The population of this study includes the principals, headmistresses, and teachers from three districts i.e. Mardan, Charsadah, and Nowshera of the Girls Higher Secondary Schools in the Elementary and Secondary Education Department Khyber Pakhtunkhwa, Pakistan. Krejcie & Morgan's (1971) table was used to determine the sample size. Since more than one group was studied, therefore, systematic and stratified random sampling techniques were used. A 5-point Likert-scale questionnaire (ranging from Strongly Disagree to Disagree, Don't Know, Agree, and Strongly Agree) was distributed through the 'drop and pick' method recommended by Babbie (2004). The reliability of the items was examined using Cronbach alpha (Cronbach, 1951, 1970), the minimum threshold value suggested by Nunnally (1978) is .7, and however, .8 is generally considered better.

## Empirical Results and Findings

**Table 1.**  
*Measurement Model*

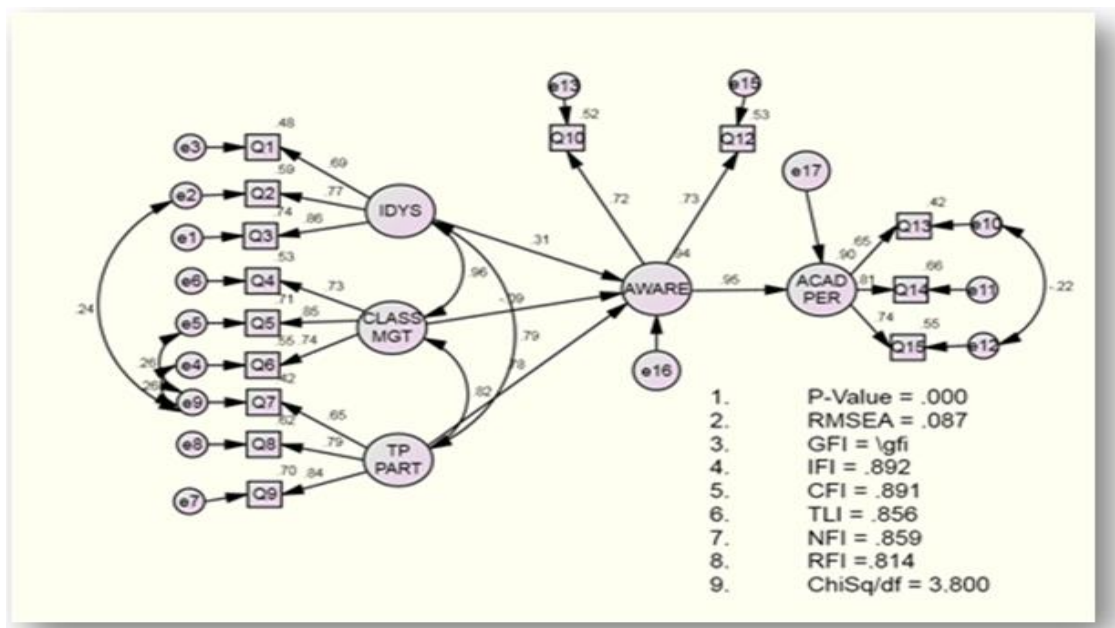
Variables	Items	Loadings	CR	AVE	$\alpha$
Identification of Dyslexics	Item 1	0.69	0.819	0.603	0.885
	Item 2	0.77			
	Item 3	0.86			
Classroom Management	Item 4	0.73	0.818	0.601	
	Item 5	0.85			
	Item 6	0.74			
Teacher	Item 7	0.65	0.806	0.584	
Parent Participation	Item 8	0.79			
Teacher Awareness	Item 9	0.84	0.70	0.526	
	Item 10	0.72			
Academic Achievement	Item 11	0.73	0.782	0.547	
	Item 12	0.73			
	Item 13	0.65			
	Item 14	0.81			
	Item 15	0.75			

CR> composite reliability; AVE> average variance extracted;  $\alpha$ > Cronbach Alpha

Source: Measurement Model based on Primary Data.

A measurement model was developed to check the convergent validity (AVE & CR) and reliability through Cronbach alpha. The criteria given by Sarstedt, Marko & Ringle, Christian & Hair (2017) for convergent validity states that AVE >0.5 and CR >0.70, furthermore the threshold value for Cronbach alpha is 0.70. Moreover, factor loadings must be > 0.50. From Table 1, it is evident that all the factor loadings are higher than 0.5, in addition, AVE and CR

values of all variables identify dyslexic students, class management, teacher-parent participation, awareness, and academic performance also met the threshold values. One item of awareness was excluded due to low factor loading i.e. item 11. Cronbach alpha of overall questionnaires is also high than 0.7 i.e. 0.885. It is assumed that scales used in the current study are found reliable and valid.



**Figure 2.** Measurement and Structural Model.

Source: AMOS-SEM Measurement Model based on Primary Data.

H<sub>2a</sub>: Predictors significantly predict the criterion variable.

**Table 2.**  
*Direct Effects.*

Direct Relationship	$\beta$	S.E	t	p	Support
Identify Dyslexic → Awareness	0.191	0.047	4.067	0.000	Yes
Class Mgt → Awareness	0.149	0.057	2.629	0.009	Yes
Teacher Parent Participation → Awareness	0.466	0.048	9.713	0.000	Yes
Awareness → Academic Performance	0.664	0.033	20.045	0.000	Yes
Identify Dyslexic → Academic Performance	0.127	0.032	3.908	0.000	Yes
Class Mgt → Academic Performance	0.099	0.038	2.636	0.009	Yes
Teacher Parent Participation → Academic P	0.309	0.039	7.894	0.000	Yes

**Source:** AMOS-SEM Structural Model based on Primary Data.

Hypotheses were tested using bootstrapping. Table 2 presents the results of the direct impact of predictors on criterion variables. It is revealed from the above table 2 that identification of dyslexic has a significant effect upon awareness  $\beta=0.191$ ,  $t=4.067$ ,  $p<0.05$ , and one percent change in predictor could bring a 19.1% change in the criterion. In addition, class management also has a significant influence on the teacher's awareness  $\beta=0.149$ ,  $t=2.629$ ,  $p<0.05$ , furthermore, teacher-parent participation also has a significant impact on awareness  $\beta=0.466$ ,  $t=9.713$ ,  $p<0.05$  moreover, awareness also has a positive and significant impact on academic achievement and performance  $\beta=0.664$ ,  $t=20.045$ ,  $p<0.05$ . There is a significant role of dyslexics identification in determining the academic performance of students,  $\beta=0.127$ ,  $t=3.908$ ,  $p<0.05$ , class management role upon

academic performance  $\beta=0.099$ ,  $t=2.636$ ,  $p<0.05$  while teacher-parent participation also has a significant impact on student academic performance  $\beta=0.309$ ,  $t=7.894$ ,  $p<0.05$  respectively. The most dominant factor is found awareness on basis of the highest beta value followed by teacher-parent participation. In the existing study, all predictor variables are held responsible for bringing positive change in the academic performance of dyslexic students. Moreover, awareness and teacher-parent participation can play the most important role in enhancing the academic performance of dyslexic students. Based on results in table 2 and discussion, thus H2 is substantiated.

H2b: Awareness mediates between predictors and criterion variables

**Table 3.**  
*Indirect Effects*

Indirect Relationship	$\beta$	S.E	t	p	Support
Identify Dyslexic → Awareness → Academic P	0.127	0.032	3.908	0.000	Yes
Class Mgt → Awareness → Academic P	0.099	0.038	2.636	0.009	Yes
Teacher Parent Participation → Awareness → Academic Achievement/ Performance	0.309	0.039	7.894	0.000	Yes

**Source:** AMOS-SEM Structural Model based on Primary Data.

Bootstrapping was run to test the indirect effects of awareness on the relationship between identifying the dyslexic students, class management, and teacher-parent participation and the academic performance of dyslexic students. Awareness significantly mediates between identify dyslexic student and academic performance  $\beta=0.127$ ,  $t=3.908$ ,  $p<0.01$ , 12.7% change is possible between identifying dyslexic students and academic performance due to awareness, also awareness mediates between class management and academic performance  $\beta=0.099$ ,  $t=2.636$ ,  $p<0.05$ , likewise awareness

mediates between teacher-parent participation and academic performance. 9.9% change is possible in the academic performance of dyslexic students due to awareness and awareness is also found responsible for bringing 30.9% change in teacher-parent participation and academic performance of dyslexic students. Therefore H2b is also accepted.

## Discussion

With this context i.e., origin, meaning, definition, and theories of dyslexia, its impact and role



concerning academic achievement and performance. The awareness and identification of the dyslexic by teacher/ school and management of the classroom with dyslexic students, and parent teacher's participation and meetings through parents and teachers' councils and responsiveness to intervention emerged as the main variables of the study.

### Dyslexia's Awareness & Identification

Lyytinen *et al.* (2006) suggested the establishment of precursors of dyslexia in the preschool years. Identification and intervention at an early stage are significant to help students with dyslexia. Yet, is difficult at the individual level to predict the nature, the impact of dyslexia among school-going children (Muter *et al.* 2004; Puolakanaho *et al.* 2007). The identification of a particular disability of the students in reading and learning is a critical factor. It has been observed that it is the foremost and significant step to address the problems of dyslexic students at the early stage (Thompson, 2013; Ajoku-Christopher, 2012). Since, majority of the teachers have either no professional training or the knowledge of the nature, types, and impact of dyslexia on the academic performance of the students, this ignorance of the teacher intensifies the issue. It has been recommended by researchers to focus on the students with learning disabilities teachers must be trained both for general education systems as well for special or inclusive education to identify and report the students with disabilities to the school management so that a special teaching strategy and environment could be designed to satisfy the learning need of the dyslexic. In addition to assessment and screening, response to intervention was proposed by Fletcher, Reid Lyon, Fuchs & Barnes (2007). It is based on continuous monitoring of the progress through well-developed program intervention instead of static assessment of the skills methods. Researchers have found several techniques to help the teachers how to respond to the problems of students with learning disabilities, however, recently, RTI (Responsiveness to Intervention) has been identified as one of the most helpful devices also named as problem-solving approach (Speece & Shekitka, 2002). It has captured the greater attention of academic researchers and is considered as one of the processes of remedial interventions. It has been found very helpful in generating information to guide the teacher to focus on the students with learning disabilities (LD). The main idea of this strategy is systematic that includes, use of scientific and research-based intervention in the teaching-learning process

inter alia measuring the comprehension of learning response of the students and, then use of the response data to introduce variation in the volume and intensity of the subsequent interventions.

The universally agreed upon model of RTI is based on three tires to resolve the issue of students with learning disabilities. The tire one is related to providing high-quality instructions as well as behavioral support during teaching and learning activities. The second tire is concerned with the provision of specialized instructions for those students whose performance falls low as compared to their classmates, and the third tire focuses on the evaluation mechanism by engaging a multidisciplinary team (Marston, 2001). Although there is no universally agreed-upon RTI model, generally it is considered that it might include multiple tiers that provide a sequence of programs and services for students showing academic difficulties. According to RTI provides high-quality instruction and behavioral supports in general education, and it provides more specialized instruction for students whose performance is less than their classmates, and finally, it provides comprehensive evaluation by engaging a multidisciplinary team to know and determine the student with a disability and to need for special education and related services. The benefits associated with RTI include timely identification of a student with LD by employing a problem-solving approach instead of using an ability-achievement discrepancy formula i.e. "wait to fail." Secondly, it helps in reducing several students that could be considered for special education. The third benefit of RTI is that it also reduces over-identification of minority students, Likewise, it is handy, its generated data is highly relevant to instruction, logical and focused outcome (4) data that are maximally relevant to instruction, (5) focus on student outcomes with improved accountability inter alia it helps to promote the concept of collaboration and shared responsibility (Grimes, 2002). Yet, experts believe that it is not so simple rather problems are faced at the time of implementation of RTI, therefore, researchers assert that before execution of any one of the RTI models at the school, district, or provincial level, there is a need to plan effectively and several decisions could be made ahead particularly about the selection of structure and components, and the decision on how the students will go through the process Thompson, 2013. Thus, three main issues need to be evaluated and addressed for successful implementation, which include selecting the structure and components, balancing rigidity and

flexibility, movement with and between tires, and intervention fidelity and instructional issues.

### Management of the Class-room with dyslexics

Classroom management for students with dyslexia is one of the critical factors that depend on school leadership and the managerial understanding of the teacher. The administration of the school is required to execute academic accommodation and alteration mechanisms to effectively help the students with disabilities, extra time and attention could be given to the student to complete their assignments, assistance in taking notes, and modification of the assignments properly (Kaluyu & Ooko, 2016). Teachers can change teaching strategies for dyslexic students by giving them taped tests. Likewise, the dyslexic could get benefit by just listening to the text on or through video besides word processing software on the computer (Griffiths, 2012). Since teaching to students with disabilities is not easy therefore teachers both in general education and special education must accommodate techniques to nurture the learning and classroom management for learning of the heterogeneous students i.e. dyslexic and non-dyslexic (Connor *et al.*, 2005). Thus, teachers must be equipped with the necessary knowledge and skills, keep them organized, and allow the accommodation through the use of materials, interactive instruction, and student performance. The strategies to be employed by schools and teachers to manage the classroom for dyslexic include clarification or simplification of written directions, giving them a small number of assignments, block out the external stimuli, highlighting the essential facts and figures, use of a placeholder for consumable supplies, provision of extra practice activities and glossary in contents areas along with developing reading guidelines and finally use of AV aids for recording purpose through assistive technologies. In Khyber Pakhtunkhwa due to the increasing enrolment of female students and limited infrastructural capacity, the size of the classroom is also increases and mostly every classroom has 50 students. Due to the large size of the classroom, it is difficult for a teacher to manage the classroom and maintain decorum and discipline. Likewise, the teacher fails to pay individual attention to the students, and thus identify and focus on the student with a learning disability becomes more difficult, further due to a lack of awareness about dyslexia and poor management potentials a dyslexic suffers more.

### Parents- Teachers Participation

Researchers assert that the involvement of all the stakeholders particularly parents and other academic and ministerial staff plays a significant role to address the issue of dyslexia in schools (Thompson, 2013). The parent's and teachers' council could be one of the recommended instruments to share the views regarding problems faced by students with disabilities (Norwich, Griffiths, & Burden, 2007; Croll, 2001). This will help the school to assess the level, volume, and frequency of intervention and the level of improvement achieved (Griffiths, Norwich & Burden, 2004). It has been suggested by numerous studies that there should be frequent interaction among the teachers and parents inter alia the supporting staff of the school so that a built-in mechanism could be put in place that could rightfully identify the changing nature of the problem faced by the students and to suggest the kind of intervention needed (Griffiths, 2012). There is an agreement among the scientific community that both parents and teachers essentially lend their support, encouragement, and consistent offer to dyslexic students, however, it has been found that this happens very rarely. The researcher believes that the encouragement should involve patient listening to the feeling of the children since, anger and anxiety are found among the dyslexic all the time (Ryan, 2004), yet due to language issues it becomes harder for them to express their thoughts, emotions, and feelings openly, therefore, it is the responsibility of the parents and teachers to help them in learning. It has been suggested by Michael Ryan (2004) that parents and teachers must reward the effort as for students with disabilities to learn that grades do not matter as compared to progress, so whenever the adult confronts an unacceptable attitude or behavior, they should abstain to unintentionally discourage the children with learning disability, for example, they should avoid words like lazy or incorrigible that could be extremely fatal to the self-image of the children.

### Conclusion

Dyslexia is widely studied in western perspective however, very limited studies could be found in the developing countries. The current study aims to investigate the indirect effects of awareness on the relationship between identifying dyslexic students, classroom management teacher-parent participation, and academic performance of students. The study finds that dyslexia needs special attention of the teachers as well as the parents. Since they are special, therefore,

teachers must be well aware of the problem and psyche of the dyslexics in order to find the dyslexia students in the class. Further separate strategies for classroom management, teacher-parent participation and awareness is instrumental to enhance the academic performance of dyslexic students. The study reported that all the direct and indirect relationships were also found positive and significant, yet, awareness and teacher-parent participation were found as the most dominant factors.

### Contributions

The elementary and secondary education department in Khyber Pakhtunkhwa Pakistan is progressing well, however, with expansion and growth the complexity of the system is also increasing, the new philosophy of teaching, methods, and techniques has brought dramatic changes in the organizational policies and its teacher's attitude, behavior, and the way today's smart institutions deliver and facilitate the students with learning disabilities to overcome their deficiency in learning through inclusive classroom systems throughout the developed world. The philosophical shift from classical to neoclassical and now technology-driven modern teaching also affected the way teachers were teaching in the early decades. Teachers work with people and through people therefore, besides technical, conceptual, and design skills, human skills emerged as a powerful skill to be present in successful teachers for effective and efficient teaching to the students with dyslexia issues. The findings of this study are expected to enhance the knowledge of government officials who are responsible for the formulation of educational policies and programs, curriculum development, and teachers training to focus on the inclusive education systems for students with learning disabilities especially female students. Simultaneously, understanding the relationships among different variables i.e. dyslexia, causes of dyslexia, teachers awareness, identification and demographics, their impacts on the academic learning and performance of females and findings of this study will help the administrative machinery to follow such human policies, programs, curriculum and practices that could improve the quality of learning and teaching for students with learning disabilities.

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## Perception of Meaningful Work and Job Satisfaction of Accounting Faculty Members

### Muhasebe Öğretim Üyelerinin Anlamlı İş ve İş Tatmini Algısı

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#### Abstract

Meaningful work is the values formed by the person's expectations about their workplace. Job satisfaction is the positive feelings one has for one's job. This study aims to measure whether accounting academicians find their jobs meaningful and their satisfaction levels in their careers. The sample size is 164 people who are accounting academics in Turkey. The study measured the relationship between the meaningful job and job satisfaction, and the subdimension of the meaningful job was examined. Significant relationships were found between some sub-dimensions of meaningful work and job satisfaction.

**Keywords:** Meaning, meaningful work, job satisfaction, accounting academics, university education.

**JEL Codes:** M40, M10

#### Introduction

A person's work depends on some material or intangible elements. What these elements are, how, and how they affect people in working life has been the subject of research in many social sciences. Education, psychology, sociology, business, and economics can be counted among these fields of science. While it is among the main subjects of management and organization research in business science, it is a field of study that has also influenced other sub-disciplines. Keeping the employee at work and ensuring its continuity both contribute to the continuity of the business and affect the costs of dismissal or dismissal. What should happen is that while the employee obtains the maximum benefit for himself, the workplace also provides the same benefit from the employee. For this reason, the

#### Öz

Anlamlı iş, kişinin çalıştığı yerle ilgili beklentilerinin kendinde oluşturduğu değerlerdir. İş tatmini, kişinin işine duyduğu pozitif hislerdir. Bu çalışmada, muhasebe akademisyenlerinin işlerini anlamlı bulup bulmadıkları ile işlerindeki tatmin durumlarının ölçülmesi amaçlanmaktadır. Türkiye'deki muhasebe akademisyenlerine anket iletilmiş, 164 kişilik örnek kütleden geri dönüş sağlanmıştır. Çalışmada, anlamlı iş ve iş tatmini arasındaki ilişki ölçülmüş ve anlamlı işin alt boyutları incelenmiştir. Anlamli işin bazı alt boyutları ile iş tatmini arasında anlamlı ilişkiler bulunmuştur.

**Anahtar Kelimeler:** Anlam, anlamlı iş, iş tatmini, muhasebe akademisyenleri, üniversite eğitimi.

**JEL Kodları:** M40, M10

intangible reflections of the employee's job on himself and the positive effects on his perception have been examined with concepts such as meaningful job and job satisfaction (Locke, 1969; Nord et al., 1990; Spector, 1997).

Accounting education has a certain standard (International Accounting Education Standards). Related standards emphasize the importance of accounting education. Suppose accounting education is given by accounting academics who are dissatisfied with their jobs and feel burnout. In that case, it is likely to impair their ability to serve students and the accounting profession (Vesty et al., 2018: 2). For this reason, it has been deemed necessary by us to investigate the

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meaning and satisfaction of accounting academicians in their work.

After addressing the concepts of meaning, a meaningful job, and job satisfaction conceptually, this study is based on the meaningful work scale of Göçen and Terzi (2019). Judge et al. (1998) consist of the analyses made due to applying the job satisfaction scale to accounting academicians and the results achieved.

### **Theoretical Framework for Meaningful Jobs and Job Satisfaction**

Based on the studies in the literature, the concepts related to a meaningful job, job satisfaction, and meaningful job sub-dimensions are explained below.

#### **Meaning and Sense-Making**

According to Frankl (2006: 76), one of the pioneers of meaning studies, meaning is unique and special for everyone because the person can conceptually fill it. Only then does the person achieve an acquisition that satisfies his own will to meaning?

Sense-making is the process of people constructing, interpreting, and recognizing the meaningful features of the world (Gephart et al., 2010: 275). A strong meaning contributes to one's ability to stay healthy (Barnes, 2005, cited by Kalkan and Batik, 2019: 1714).

According to Weick (1995: 15), sense-making (or signification) is a continuous process that takes shape when people relate the situations in which they find themselves to the past. There is a strong reflection towards this process. When people make sense of it, they see the world as they already believe. People make meaning by combining what they see with what they have in their minds.

Characteristics of sense-making are based on identity formation, backwardness, arranging the meaningful environment, sociability, continuity, focusing on the clues, being more reasonable than reality (Weick, 1995: 17). Thus, the identity formation process of the person who creates the meaning consists of the interactions between himself and his environment. People are also a producer of the order they are in. Meaning-making is continuous actions that do not have an endpoint and continue to be formed in the human mind by combining clues.

The organization's efforts to create meaning in the formation of meaningful work will be possible if it coincides with the meaning of the employee's inference about his job. Making meaning with the organizational dimension is a discontinuous social process rather than an effort (Gephart et al., 2010: 297).

#### **Meaningful Work**

As an interdisciplinary concept, meaningful work has led to complex and different perspectives on the subject (Rosso, Dekas, & Wrzesniewski, 2010: 92). The meaning of work can be defined as the value created by the individual's individual's expectations standards of the job (May, Gilson, & Harter, 2004: 14). Meaningful work occurs in an employee's perception, and this perception is based on employees' own experiences in their work (Clausen and Borg, 2010: 311). With a psychological approach, meaningful work refers to employees' thinking that they contribute to a worthwhile cause with their activities (Albrecht, 2013: 239).

People mostly prefer a job that is meaningful to them (Steger et al., 2012: 322). When people attribute value and importance to their work, work becomes meaningful (May et al., 2004: 4). On the other hand, the meaning of the job gains importance with the view that it also provides benefits for the institution (organization) (Steger et al., 2012: 323). In fact, in many types of occupations, depending on countries and income levels, there is a view that a meaningful job desire can be a substitute for financial goals (Hu and Hirsh, 2017: 8). It is debatable whether people can access the meaningful work they want. Thus, with the support of the definitions made in the literature, it can be said that meaningful work is related to the subjective perspective of the employee rather than an objective evaluation (Martela and Pessi, 2018: 3).

When individuals are given dignity and value as the owner of a role and their contribution to their work, they are likely to derive a sense of meaningfulness from their interactions with their institutions (May et al., 2004: 15).

The meaningfulness of work is explained according to two fundamental pillars, psychological and sociological. For this purpose, Rosso et al. (2010: 95) listed the sources of meaningfulness as self, other people, work environment, and spiritual life. These resources, in terms of self, values, motivation, beliefs; in terms of the business environment, design of

assignments, mission, financial terms, non-business environment, and culture; in terms of other people, it is divided into sub-elements as colleagues, leaders, groups, and family (Rosso et al., 2010: 95).

The sub-dimensions of experiencing the meaningfulness of work are listed in a study (Lips-Wiersma et al., 2020: 41); unity with others, service to others, expressing full potential, honesty with oneself, facing reality, inspiration, and balancing tensions.

The sense of meaningful work differs from the "self" to define himself. Values are what people hope and expect to achieve by working. Work values are interrelated with the meanings they attach to their work. (Nord et al., 1990: 21-22). Motivation means supporting an aspect of human behavior that is physiologically or psychologically deficient (Luthans, 1992: 147). Employees tend to experience experiences that make them more committed to their institutions than experiences that provide less satisfaction in their workplaces (Bozkurt and Yurt, 2013: 124). Beliefs or spirituality are expressed by employees' search for meaning and purpose (Cartwright & Holmes, 2006: 204).

The ability of the job to become meaningful is also associated with the dimension of being one with others (Lips-Wiersma et al., 2020: 35). Employees interact with their business stakeholders. Employees continue to learn and develop through their interactions with others in the workplace (Noe et al., 2014: 259). For example, the leader's relations with the employee, mutual trust and emotional support (Eren, 2001: 446), communication-oriented style, and the manager's strict management approach differ the employee's meaning to the job.

Depending on the employee's contribution to his work, the ability to experience the meaning of his work occurs (Chalofsky, 2003: 74). While the employee finds his job more meaningful when encountering more than one meaning dimension, his perception of job meaning decreases when there is less (Lips-Wiersma and Morris, 2020: 40).

The meaning sought at work is associated with the dimension of relations at work (Göçen and Terzi, 2019: 1502). As one of the characteristics Weicks (1995) specified in creating meaning, sociability can express the desire not to be alone in the society in which the person lives and the motivation to interact. The employee's inability

to participate in the social environment at work and not to see himself as a member of the social relations at the workplace will cause a feeling of loneliness (Demirbaş and Haşit, 2016: 139). Therefore, it will be a question of missing a branch of the positive meaning that it will perceptually attribute to the work.

The basis of academic life is a person's continuous self-education and willingness (Rosovsky, 2003: 166). It can be said that there are some features specific to higher education (Bentley et al., 2012:2). Authority relations are loosely interconnected (Weick, 1976), and the goals are multiple, often vague (Cohen and March, 1974); organizational subunits are fragmented (Clark, 1983), and core employees, i.e., "academic professional," "have a strong influence on goal setting, management and administration of institutions, and the daily routines of work" (Enders, 2007).

If their work does not make sense for academics, the essence of their profession, which is only seen as a job, will decrease, and work performance will decrease. In other words, if the aims of academics are not fulfilled (such as helping students find the way to their profession), the academic work becomes only a "job," and happiness and life purpose in life are likely to be disrupted (Hagedorn, 2012:487).

### Job Satisfaction

Job satisfaction is a pleasing emotional state that emerges from the person's evaluation that his job makes it easier to reach job values (Locke, 1969: 316). In other words, it is the positive feelings that a person has for the physical and non-physical whole of the working environment (Çelik, 2011: 8). Job satisfaction shows "employees' attitudes towards their jobs, their psychological background towards their jobs, and how they feel in the company" (Schultz and Schultz, 1990: 334).

Some of the factors affecting job satisfaction can be counted as the subject of activity, wage level, promotion opportunity, management attitude, people, and working conditions (Rajput et al., 2016: 2). From the point of view of the business, one of the factors in providing efficiency and productivity in activities is job satisfaction (Azırı, 2011: 78). In other words, job satisfaction as the employee's satisfaction from the job is the harmony between the employees' expectations from the business and the workplace and the spontaneous environment at work (Davis, 1984: 96). Thus, it can be said that job satisfaction is

the emotional whole of the job itself and the employee's attitudes towards the job.

Most individuals spend a large part of their working life at work, so understanding the factors associated with job satisfaction is relevant to improving many individuals' well-being is an essential aspect of their lives. Another important reason for researching job satisfaction is the belief that increased job satisfaction will increase productivity and thus the profitability of businesses (Gruneberg, 1979: 1).

### Theoretical Basis of Research Factors

Bendassolli et al. (2015: 3) pointed out "working relationships" as one of the meaningful work dimensions in their studies. The business relationship is more than amicable behavior between people in an organization; rather than just mutual acquaintances, there should be "trust, appreciation and shared interests or values" (Berman et al., 2002: 218).

In the case of meaningful work, "humility" can be described as a pillar of meaningful work within the framework of contributing to society due to the targeting of valuable and appreciated purposes (Göçen and Terzi, 2019: 1503). Humility, also called standing back, can be counted as one of the critical "organizational virtues" recommended to provide the moral foundation of workplaces (Owens et al., 2013: 1517).

Pfeffer (2003: 7) mentioned four basic dimensions to investigate the consistency of management practices and employee expectations: These are; 1) authentic activities that allow employees to learn, develop, and have a sense of competence and mastery, 2) meaningful work that provides a sense of purpose, 3) a sense of bond and positive social relationships with co-workers, 4) the ability to lead an integrated life so that one's job role and other roles are not inherently in conflict."

Calling, based on the common studies in the literature (Wrzesniewski et al., 1997: 21; Dik and Duffy, 2009: 427; Rosa et al., 2019: 45; Dik and Shimizu, 2019: 4), can be defined as sacrificing oneself to work, seeing work as a life purpose, finding work meaningful. In addition, Rosso et al. (2010: 112) used the following expression when explaining the concept of "transcendence"; "while other meaningfulness factors try to explain how work becomes meaningful as a result of its connection to valuable aspects of the self, its goals or motives, the transcendent factor

suggests almost the opposite. Accordingly, work is meaningful when individuals subordinate themselves to groups, to experiences."

Some studies examining meaningful job and job satisfaction together were reviewed. According to this, Wishner (1991) examined the effect of the meaning of the job on the job satisfaction of school psychologists. Blake et al. (2018) aimed to investigate the relationship between meaningful work and mental health and investigate job satisfaction as a moderator of this relationship. Thus, for anxiety and stress, they found that having a meaningful job was associated with better mental health for those with high job satisfaction (Blake et al., 2018: 42). Rothausen and Henderson (2019) found that meaning-based job well-being and job satisfaction are different from other job attitudes but are related to them. Again, they stated that meaning-based job well-being focused on aspects outside of job satisfaction research (such as work on family life, work role in self-expression, a transcendent sense of purpose at work). Ghislieri et al. (2019) investigated the relationship between work, narcissistic leadership, workload, and emotional demands with nurses' job satisfaction and the mediating role of meaningful work among them through a questionnaire administered to nurses. They confirmed their first hypothesis that they investigated the relationship between meaningful work and job satisfaction in nurses. Steger et al. (2012: 326) hypothesized positive relationships between meaningful work and work motivation, job satisfaction, life satisfaction, the meaning of life, and negative associations with psychological distress. They found that dimensions of meaningful work were associated with transcendence and work orientations in predictable ways.

A study on the job perceptions of accounting academics, Strawser et al. (2000) written by "Work Perceptions and Leaving Behaviors of Staff Accounting Educators." This research was conducted by comparing the academicians of 1994 with the academics of 1970. Accordingly, the hypotheses presented are as follows: "meeting the job-related needs of academics from both years is different from each other," "accounting academics with different personal characteristics differ in their job-related satisfaction levels," "a higher level of job incompatibility is associated with subsequent employee turnover behavior" (Strawser et al., 2000: 321). The findings indicated that academicians' general job satisfaction level

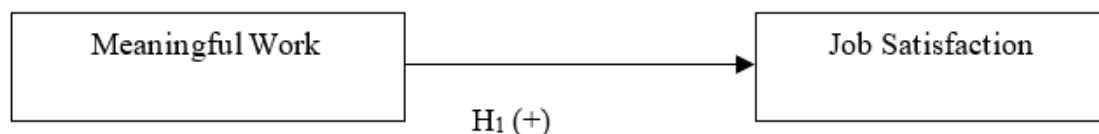
decreased from 1970 to 1994 (Strawser et al., 2000: 335).

### Research Methodology

The research aims to determine the effect of meaningful work on job satisfaction. The

research model prepared for this purpose is shown in Figure 1. The research hypothesis obtained from the research model is;

H<sub>1</sub>: Meaningful job has a significant and positive effect on job satisfaction.



**Figure 1.** Research Model (Source: Author)

The research population consists of accounting academicians working in state and foundation universities in Turkey. The main population is 1561. The sample size consists of 164 people. The convenience sampling method, one of the non-random sampling methods, was used to select the sample. The questionnaire prepared for data collection was sent to the academicians via e-mail. The questionnaire consists of 2 parts in total. The first part consists of questions ready for the demographic information of academicians.

In contrast, the second part consists of job satisfaction and a meaningful job scale, also

included in the research model. The job satisfaction scale is taken from Judge et al. (1998). The variables in the scale, consisting of 5 questions, were prepared in a 5-point Likert format. The meaningful work scale consists of 21 questions in total. This scale was also designed in a 5-point Likert form. The scale was taken from Göçen and Terzi (2019) and Keser and Bilir (2019). Ethics committee permission certificate dated 15/01/2022 and numbered 2022/78 was obtained from Istanbul Medeniyet University Social and Human Sciences Ethics Committee in terms of the convenience of collecting study data.

### Results and Discussion

**Table 1.**  
*Frequency Analysis (Source: Author)*

Gender	n	%	Age	n	%
Male	85	51.8	20-30	7	4.3
Female	79	48.2	31-40	66	40.2
			41-50	56	34.1
<b>University type</b>	<b>n</b>	<b>%</b>	51-60	33	20.1
State	144	87.8	60+	2	1.2
Foundation	20	12.2			
			<b>Experience</b>	<b>n</b>	<b>%</b>
<b>Working type</b>	<b>n</b>	<b>%</b>	1-10	54	32.9
Full-time	156	95.1	11-20	57	34.8
Part-time	8	4.9	21-30	39	23.8
			30+	14	8.5
<b>Managerial experience</b>	<b>n</b>	<b>%</b>	<b>Having other job</b>	<b>n</b>	<b>%</b>
Manager	28	17.1	No	150	91.5
Ex-manager	48	29.3	Yes	14	8.5
Not manager	88	53.7			

In Table 1, frequency analyzes of a total of 164 accounting academicians, who constitute the research sample population, are included. When the table is examined, it is seen that the participants show a balanced distribution in terms of gender. The majority of the participants, who primarily work at state universities and full-time, do not do jobs other than university. 17%

of academics are currently in managerial positions at their universities. About 30 percent of them have held managerial positions in the past. Half of them do not have any managerial experience. Approximately one-third of the participants have 1-10 years, one-third have 11-20 years of academic experience, and the rest have more than 20 years of educational

experience. As many as 80 percent of them are under the age of 50.

The reliability and factor analysis results of the "job satisfaction" scale, the dependent variable of the research, are shown in Table 2. In analyzes made in the field of social sciences, the internal consistency level of a scale should be 0.7 (Nunnally, 1994). The reliability level of the job satisfaction variable is 0.811. In this case, it is understood that the scale has sufficient internal consistency for factor analysis to be applied. Some prerequisites must be met before applying

factor analysis. The first of these conditions is that the number of samples should be sufficient to use factor analysis. This requirement is measured by the Keiser-Meyer-Olkin (KMO) test. A test result of 0.7 and above indicates that the sample size is sufficient. As shown in Table 2, the KMO test result for the job satisfaction variable is above the required level (0.766). The second prerequisite is that the variables that make up the factor must be suitable for factor analysis. The Bartlett sphericity test also measures this condition.

**Table 2.**  
*Job Satisfaction Scale Reliability and Factor Analysis (Source: Author)*

Factor	Variables	Mean	Factor Loading	Variance	Cronbach	KMO	Bartlett
Job Satisfaction	I am delighted with my current job	4,23	0.883	65,6	0.811	0.766	0.000
	Most days, I go to work eagerly	4,14	0.901				
	I find my job fun	3,90	0.818				
	I think my job is unpleasant	4,19	0.602				

A Bartlett test result of less than 0.05 is sufficient to meet the relevant requirement. Again, among the results in the table, the Bartlett test result (0.000) determined the suitability of the variables for factor analysis. After providing the necessary prerequisites, factor analysis was carried out. When the factor loads of each variable in the scale are examined, it is seen that these values

vary between 0.602 and 0.901. For the variables to be included in the factor analysis, the factor loads must have a value of 0.5 and above (Sipahi, Yurtkoru & Çinko, 2008). The job satisfaction scale was gathered under a single factor in the literature. The explained variance rate of this single factor is 65.6%.

**Table 3.**  
*Meaningful Business Scale Reliability and Factor Analysis (Source: Author)*

Factor	Variables	Mean	Factor Loading	Var.	Cronbach	KMO	Bartlett
Meaning at work	My job helps me to know myself better	4.10	0.660	21.34	0.846	0.806	0.00
	My work life contributes to my personal development	4.38	0.740				
	My job serves a great purpose.	4.23	0.636				
	I feel a spiritual power while doing my job	4.12	0.828				
	My work life gives me spiritual satisfaction	4.13	0.760				
	I feel a love of work that is hard to define in my work life.	3.69	0.616				
Sometimes, I feel a superior spiritual pleasure in my business life because of what I do.	4.03	0.739					

Searching for meaning at work	There are moments when I feel an inner peace independent of place and time in my business life.	3.97	0.776	
	I'm looking for the purpose of my work life	2.66	0.903	
	I wonder what the meaning of my work life is	2.54	0.921	14.79
	I am looking for something to add meaning to my work life.	2.93	0.839	
Work relationships	I feel a sense of family when I am with my co-workers.	3.45	0.789	
	I feel that my co-workers value me	3.74	0.878	12.23
	I like to spend time with my co-workers	3.75	0.871	
	My co-workers like me	3.91	0.783	
Humility at Work	I don't expect compliments from people around me for my actions.	3.63	0.794	
	I don't expect anything in return for the work I help others.	3.90	0.791	11.24
	There is no room for vanity in my life	4.04	0.656	
Meaning Leadership at work	I support my colleagues to achieve their life goals	4.04	0.794	
	I help my colleagues find meaning in their lives	3.77	0.849	9.41
	I want my co-workers to question their life purpose	3.62	0.681	

The factor analysis results performed with the variables in the meaningful work scale are shown in Table 3. When the Cronbach's alpha value was examined, a result of 0.846 was obtained, above the required value of 0.7, and it was seen that the scale had sufficient internal consistency. The adequacy of the sample mass was measured with the KMO test and a result above the required 0.7 value (0.806). The suitability of the variables in the scale for factor analysis was measured with the Bartlett sphericity test. The result obtained (0.00) shows that the necessary conditions for applying factor analysis are met. The original

scale has a total of 6 dimensions. However, five factors were obtained in this study due to factor analysis. All the variables belonging to the "transcendence at work" dimension in the original scale were under the "meaning at work" dimension in this analysis. The other factors obtained and the variables of these factors perfectly harmonized with the original scale. The factor loads of the variables are above the required 0.5 value. The explained rates of variance are also shown in Table 3. The variance rate explained for the meaningful business concept of the five factors is 69% in total.

**Table 4.**  
*Descriptive Statistics of Research Factors (Source: Author)*

Factors	Mean	Std. Dev.
Job Satisfaction	4.12	0.694
Meaning at work	4.08	0.616
Work relationships	3.71	0.819
Searching for meaning at work	2.71	1.108
Humility at Work	3.86	0.767
Meaning Leadership at work	3.81	0.735

Table 4 shows the descriptive statistics of the factors obtained. As a result, due to the factor analyses Considering that the values vary between 1 and 5, job satisfaction has a very high average value. Although the factor with the

lowest average is "searching for meaning at work," when the expressions in the content of the factor are examined, it is seen that the lower average means higher satisfaction. The average of all other factors is above the middle point of

the 5-point scale, which is 3. As a result of the factor analysis, the research model and research hypothesis were also renewed. Figure 2 shows

the revised research model and further research hypotheses.

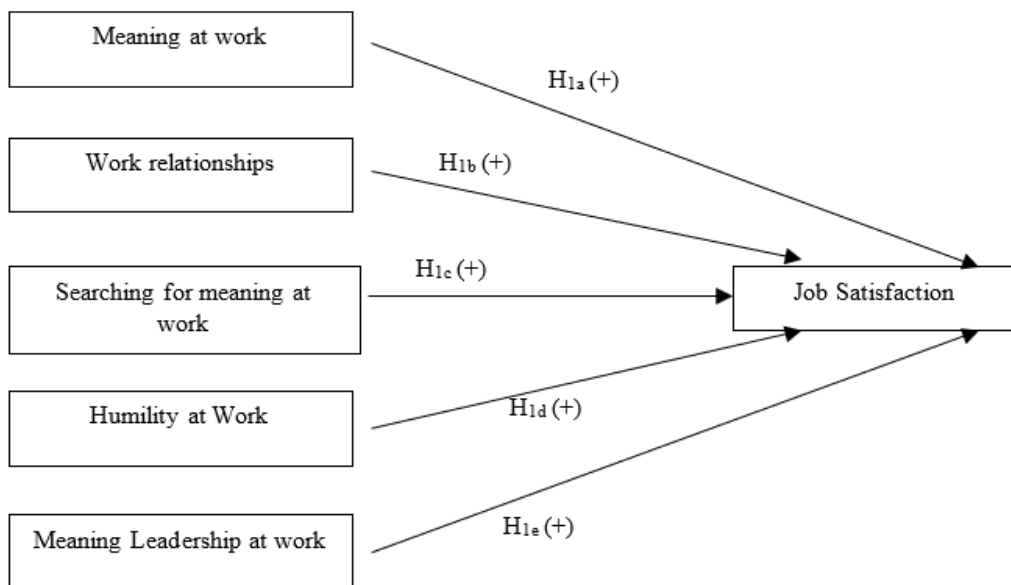


Figure 2. Revised Research Model (Source: Author)

H<sub>1a</sub>: Meaning at work has a significant and positive effect on job satisfaction.  
 H<sub>1b</sub>: Work relationships have a significant and positive effect on job satisfaction.  
 H<sub>1c</sub>: Seeking meaning at work has a significant and positive effect on job satisfaction.

H<sub>1d</sub>: Humility at work has a significant and positive effect on job satisfaction.  
 H<sub>1e</sub>: Meaning leadership at work has a significant and positive effect on job satisfaction.

Table 5. Correlation Analysis (Source: Author)

		JS	MaW	WR	SMW	HW	MLW
Job Satisfaction	Pearson's r	—					
	p-value	—					
Meaning at work	Pearson's r	0.556	—				
	p-value	<.001	—				
Work Relations	Pearson's r	0.422	0.397	—			
	p-value	<.001	<.001	—			
Search for Meaning at Work	Pearson's r	-0.328	<b>-0.112</b>	<b>-0.070</b>	—		
	p-value	<.001	<b>0.152</b>	<b>0.371</b>	—		
Humility in Work	Pearson's r	0.202	0.324	0.304	<b>0.039</b>	—	
	p-value	0.010	<.001	<.001	<b>0.617</b>	—	
Meaning leadership at Work	Pearson's r	<b>0.074</b>	0.375	0.272	0.226	0.468	—
	p-value	<b>0.345</b>	<.001	<.001	0.004	<.001	—

Table 5 shows the correlation between the dependent variable "job satisfaction" and the independent variable "meaningful work," which are the dimensions of meaning at work, work relations, meaning-seeking at work, humility at work, and leadership at work. It is seen that they have a statistically significant and positive relationship between job satisfaction and meaning at work, work relations, and humility at

work. It also has a negative association with the search for meaning. It is also the only negative relationship obtained in the analysis. There is a significant correlation between the meaning-seeking factor at work and superior job satisfaction and meaning leadership. The higher the search for meaning by accounting academics, the higher their job satisfaction is negatively affected.

**Table 6.**  
*Regression Analysis (Source: Author)*

<b>Dependent variable:</b>	Job satisfaction					
<b>Independent variables</b>	<b>Beta</b>	<b>p-value</b>	<b>VIF</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>ANOVA</b>
Meaning at work	0.531	< .001	1.37			
Work Relations	0.205	< .001	1.25			
Search for Meaning at work	-0.143	< .001	1.11	0.662	0.439	0.000
Humility in Work	0.045	0.471	1.36			
Meaning Leadership at work	-0.132	0.047	1.51			

Linear regression analysis was carried out to determine the effects of the dependent variables of the research, meaning at work, work relations, search for meaning at work, humility at work, and leadership at work meaning on job satisfaction. Table 6 shows the results of this analysis. The result of the ANOVA test applied for the variables should be examined for the regression analysis. Results less than 0.05 mean that regression analysis can be achieved with the relevant variables. The ANOVA test result (0.000) in Table 6 shows that this requirement is met. The R2 value, on the other hand, expresses the ratio of the independent variables used in the regression analysis to explain the dependent variable.

In this model, the R<sup>2</sup> value is at the level of 43.9%. Then, each independent variable's VIF (variance inflation factor) value should be examined. The correlation level between the independent variables used in the regression analysis should not exceed a certain level. Otherwise, a situation called multicollinearity arises. A VIF value higher than 10 indicates the presence of multicollinearity. Since all the VIF values in Table 6 are below this critical limit, there is no obstacle applying the regression

analysis. Whether the effect of the independent variables on the independent variable is statistically significant or not is interpreted by looking at the p-value. In the analyzes performed at the 95% confidence interval, a p-value of 0.05 or less indicates the existence of a significant effect.

When the p-values in Table 6 are examined, the effect of other factors is statistically significant, except for the "humility at work" factor (0.471). Therefore, the humility factor will not be evaluated in the regression model. Finally, beta values show the direction and severity of the effect of each independent variable on the dependent variable. Accordingly, a 1-unit increase in the meaning factor at work increases job satisfaction by 0.53 units. The work relations factor also affects job satisfaction positively (0,205). A 1-unit increase in the search for meanings at work and meaning leadership at work decreases by 0.143 and 0.132 units, respectively. According to these results, while the research hypotheses H<sub>1a</sub> and H<sub>1b</sub> were supported, H<sub>1c</sub> and H<sub>1e</sub> were rejected. H<sub>1d</sub> was not supported because it did not have a statistically significant result.

**Table 7.**  
*Difference Tests for Demographic Variables (Source: Author)*

	<b>Type of work</b>	<b>School type</b>	<b>Working outside</b>	<b>Management</b>	<b>Experience</b>
Job Satisfaction					
Meaning at work					
Work Relations					
Search for meaning at work					1-10 (2,88); 11-20 (2,81) 21-30 (2,50); 30+ (2,21)
Humility in work	Full-time (3,92)	Public (3,93)	No (3,92)	Former manager (4,06)	
	Part-time (2,67)	Foundation (3,30)	Yes (3,14)	Manager (3,98)	
Meaning leadership at work	Full-time (3,84)	Public (3,86)	No (3,85)	Manager (4,13)	
	Part-time (3,17)	Foundation (3,47)	Yes (3,43)	Former manager (4,01)	



Necessary tests were carried out to determine whether the dependent and independent variables in the research model were statistically different according to the demographic characteristics of the participants. These tests, performed by considering the group numbers of demographic variables, are independent sample t-test and ANOVA test. As a result of these tests, some of the research variables have statistically significant differences according to the demographic characteristics of accounting academicians. As a result of numerous analyzes performed in Table 7, the results in which significant differences were detected are shown collectively. The first point to be considered in interpreting the table is that effective results are obtained only from the variables located at the intersection points of the filled cells. For example, statistically significant results could not be obtained from the different tests applied using the variables of job satisfaction, meaning at work, and job relations. In addition, no variable has a significant difference according to demographic characteristics, gender, and age criteria. Therefore, the aforementioned demographic characteristics are not included in Table 7. In the interpretation of filled cells, the mean values of the groups are shown. For example, when it is examined whether humility at work differs according to the type of work, it is seen that full-time academics (3.92) have a higher value than part-time academics (2.67).

Moreover, the average score difference between the two groups is increased. When the variables included in the modesty factor are examined, there are general statements about people's expectations of a compliment and appreciation from their environment. Part-time accounting academics expect more appreciation and compliments than full-time academics and expect a reward for their work. In addition, a similar situation can be seen in the factor of meaning leadership at work. In this factor, which includes statements about supporting colleagues, it is seen that full-time accounting academics support their colleagues more than part-time employees.

For this reason, it is understandable that they lag behind full-time academics in socializing and supporting their colleagues. Most of the meaningful results obtained in the different tests are related to humility and meaning leadership at work. The type of university in terms of working conditions can have significant differences. It can be more challenging for academics to continue working in foundation universities than state universities. In this case, the expectation of

receiving compliments and appreciation for the activities carried out may be more critical in foundation universities. Supporting others in difficult working conditions may cease to be a priority for academics. Another meaningful result is related to whether academics have any other work outside. According to this variable, those who do not have a job outside have higher work humility and meaning leadership scores. When the managerial backgrounds of accounting academics are examined, the most modest ones are those who have been managers in the past, while those who are managers are in second place with a high score. When the search for meaning factor at work is examined, it is seen that as the work experience of accounting academicians increases, their search for meaning decreases. The result of this factor, which includes the expressions in which the meaning of business life is investigated, can be said that with the increase in experience, the search for academics has decreased. They have reached the meanings they seek about their work.

According to the results obtained, factors explored for "meaningful work" are meaningful work, the search for meaning, work relationships, transcendence, humility, and meaning leadership. Except for transcendence at work, which is one of the factors identified by Göçen and Terzi (2019), the existence of five other factors has been confirmed for the sample of "accounting academics in Turkey." As Rosso et al. (2010) stated in their study, the reason why the transcendence factor could not be verified at work, unlike other factors, is that transcendence at work (pleasure and high-emotional commitment to work) is a result of the meaning of work. Thus, in our study, all the variables belonging to the "transcendence at work" dimension were combined under the "meaning at work" dimension.

Hypotheses of the research model are; (H<sub>1a</sub>) Meaning at work has a significant and positive effect on job satisfaction. (H<sub>1b</sub>) Work relationships have a significant and positive impact on job satisfaction. (H<sub>1c</sub>) Seeking meaning at work has a significant and positive impact on job satisfaction. (H<sub>1d</sub>) Humility at work has a significant and positive effect on job satisfaction. (H<sub>1e</sub>) Meaning leadership at work has a significant and positive impact on job satisfaction. The relationship between "meaning at work" and "job satisfaction," two different concepts in the literature, has been examined through the dimensions of meaning at work.

The research results supported the hypotheses H<sub>1a</sub> and H<sub>1b</sub>, while H<sub>1c</sub> and H<sub>1e</sub> were rejected. H<sub>1d</sub> was not supported because it did not have a statistically significant impact. According to this, meaning at work has a significant and positive effect on job satisfaction. As an expected result, it can be said that people who find their job meaningful and have a positive perception about their job will have higher job satisfaction with the support of the literature explained above.

Work relationships, a sub-factor of meaningful work, have a significant and positive effect on job satisfaction. As work relationships increase positively, job satisfaction also increases. Thus, people form social connections, feeling emotionally closer to their work.

### Conclusions

The search for meaning at work does not have a significant and positive effect on job satisfaction. Therefore, it can be said that the participants whose perception of job satisfaction increases are less likely to seek meaning in their jobs. Accordingly, it can be said that those who have an increased perception of positive job satisfaction no longer seek the purpose of their business life, do not wonder what the meaning of business life is, and do not look for things that will add meaning to their work. The fact that the search for meaning at work decreases and job satisfaction increases as the duration of experience increases in demographic analyzes confirms this interpretation. Meaning leadership at work does not have a significant and positive effect on job satisfaction. Interpretatively, job satisfaction is negatively associated with contributing participants to meaningful work perceptions of their co-workers. Humility at work did not appear to have any effect on job satisfaction. In other words, whether or not the participants expect appreciation for their job success has nothing to do with satisfaction.

Part-time accounting academics expect more appreciation and compliments than full-time academics and expect a reward for their work. Understandably, full-time faculty members would not do it out of recognition, as their work is a part of their whole lives. There is also parallelism in the meaning leadership factor. Considering that full-time faculty members can socialize more with their colleagues, it is expected that their ability to guide their colleagues on meaningful work is more than part-time.

When the managerial backgrounds of accounting academics are examined, the most modest ones are those who have been managers in the past, while those who are managers are in second place with a high score. When the search for meaning factor at work is examined, it is seen that as the work experience of accounting academicians increases, their search for meaning decreases.

Accounting academics must be open to continuous improvement and development like other scholars. One of today's realities is that accounting academics should follow the current accounting legislation, accounting system innovations, and others. Work should be meaningful in the perception of the academician and internally satisfying materially and spiritually, as a way of life that covers the whole life, both for other academicians and accounting faculty members. With our study, the place of meaningful work and job satisfaction in the perception of accounting academicians has been determined in terms of sub-dimensions. In future studies, the effect of meaningful job and job satisfaction on a third situation can be measured by adding a third scale.

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## Análisis de la Satisfacción Ciudadana desde la perspectiva de los Servicios Públicos en Zonas Urbanas

### Analysis of Citizen Satisfaction from the Perspective of Public Services in Urban Areas

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#### Resumen

Esta investigación propone un análisis de la satisfacción ciudadana y el nivel de arraigo territorial de la población urbana a través de las relaciones causales de calidad esperada - calidad percibida - valor percibido - satisfacción - lealtad en las dimensiones de planificación territorial, provisión de servicios públicos y gestión medioambiental. Este trabajo constituye una herramienta científica para investigaciones futuras y sirve como base para la toma de decisiones en el ámbito de la política pública. Se utilizó el software Warp-PLS 7.0 para el diseño de un modelo de ecuaciones estructurales con base en un conjunto de encuestas aplicando el Índice de Satisfacción al Cliente Americano (ACSI) para evaluar 5 hipótesis propuestas. El cuestionario de preguntas fue dirigido a una muestra aleatoria simple de 550 ciudadanos, obteniendo respuestas de 521. Los resultados sugieren que existe una relación positiva y significativa entre el valor percibido, satisfacción y lealtad del ciudadano. Esta investigación agrega un efecto moderador de la calidad percibida en la planificación y territorial, provisión de servicios públicos y en la gestión medioambiental sobre la relación causal valor percibido - satisfacción. El estudio muestra

#### Abstract

This research proposes an analysis of citizen satisfaction and the level of territorial attachment of the urban population through the causal relationships of expected quality - perceived quality - perceived value - satisfaction - loyalty in the dimensions of territorial planning, provision of public services, and environmental management. This work constitutes a scientific tool for future research and serves as a basis for decision-making in public policy. Warp-PLS 7.0 software was used to design a structural equation model based on surveys applying the American Customer Satisfaction Index (ACSI) to evaluate the five proposed hypotheses. The questions questionnaire was addressed to a simple random sample of 550 citizens, obtaining answers from 521. The results suggest a positive and significant relationship between the perceived value, satisfaction, and loyalty of the citizen. This research adds a moderating effect of perceived quality in territorial and planning, provision of public services, and environmental management on the causal relationship perceived value - satisfaction. The study shows that the policies exercised by public managers have a significant influence on citizen satisfaction.

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que las políticas ejercidas por los gestores públicos constituyen una gran influencia en la satisfacción del ciudadano.

**Palabras clave:** Políticas Públicas, satisfacción, lealtad, ecuaciones estructurales, Mínimos Cuadrados Parciales.

## Introducción

Las políticas territoriales y ambientales, así como los servicios públicos en las zonas urbanas se han convertido en un factor decisivo a la hora de atraer a la población. La adecuada gestión de estas políticas es fundamental para lograr la satisfacción de los ciudadanos (Ouyang et al., 2017; Beeri et al., 2019). Es importante mejorar las expectativas de las personas que visitan una ciudad ya que puede ser determinante a la hora de tomar la decisión de establecer su residencia (Nghiêm-Phú, 2016; Berggren et al., 2020). La mejora continua de estos aspectos puede ser el factor diferenciador para la fidelización del ciudadano hacia la ciudad (Braun et al., 2013; Díaz-Díaz et al., 2017).

En la literatura científica podemos encontrar varias investigaciones sobre el impacto de la gestión pública en la satisfacción ciudadana (Bouranta et al., 2015; Chen et al., 2019; Drew et al., 2016; Han & Gao, 2020; Sumaedi et al., 2016). Los estudios abordan las diferencias en la provisión de servicios públicos y el nivel de satisfacción entre áreas rurales y urbanas (Zheng y An, 2015; Benjamin et al., 2017; Requena, 2016; Newburn y Berck, 2006; Pascanu et al., 2016; Sørensen, 2014; Vieira & Dutra, 2020).

Investigadores como Fornell et al. (1996), Fornell y Larcker (1981a, 1981b), proponen un estudio que utiliza el American Customer Satisfaction Index (ACSI) para analizar las relaciones causales entre calidad esperada, calidad percibida, valor percibido, satisfacción y lealtad.

Dado que la calidad de vida urbana está cada vez más vinculada a las decisiones políticas sobre los servicios públicos, el desempeño de los servicios municipales ha sido una de las principales preocupaciones de los administradores públicos y, por lo tanto, ha atraído una atención considerable por parte de la administración municipal. (Ma, 2017). En las últimas décadas, se observa un esfuerzo creciente por parte de los investigadores de las ciencias sociales para evaluar la calidad del buen gobierno en la ciudad y los servicios que brinda. Muchos institutos de

**Keywords:** Public Policies, satisfaction, loyalty, Structural Equations, Partial Least Squares.

investigación, como el Urban Institute & International City Management Association (1974) han trabajado en estrecha colaboración con los gobiernos metropolitanos para mejorar los sistemas de prestación de servicios municipales.

Este estudio aborda el GAP del análisis de la intensidad de las relaciones causales propuestas y la identificación de las variables que generan mayor y menor satisfacción ciudadana representadas en los constructos. En Guayaquil no existen investigaciones de relaciones causales que determinan el nivel de satisfacción en la provisión de servicios públicos. Tampoco existen estudios que propongan constructos moderadores de las relaciones causales entre el valor percibido de los ciudadanos sobre la satisfacción.

Esta investigación se configura de la siguiente manera: introducción, marco teórico, materiales y métodos, hipótesis de estudio, resultados obtenidos, y por último, se propone un apartado de discusión y conclusiones del estudio, seguido de las referencias bibliográficas utilizadas.

## Marco Teórico o Revisión de literatura

La correcta planificación de las políticas territoriales y viales en zonas urbanas, así como una adecuada gestión medioambiental y de provisión de servicios públicos favorece el turismo, las actividades deportivas y el desarrollo económico (Wang et al., 2020). La decisión de los ciudadanos al momento de elegir un lugar de residencia está determinada por las expectativas en la calidad de los servicios públicos provistos en el territorio, las oportunidades de empleo, la conservación de las áreas verdes y el medio ambiente (Pham et al., 2019; Kanwal et al., 2020).

Los servicios públicos incluyen: calidad del transporte, seguridad, alumbrado público, calidad del agua y alcantarillado, servicios de inhumación, servicio de extinción de incendios, etc.; que en conjunto generan expectativas por parte de los ciudadanos, así como calidad percibida, siendo esto un determinante para

establecer residencia y promocionar la ciudad como sitio turístico (Fongar et al., 2019).

La experiencia ambiental del ciudadano es otro factor importante a la hora de decidir establecer residencia y recomendar la ciudad. Las instituciones públicas gestionan los espacios verdes y las normas que regulan los niveles máximos de ruido (contaminación acústica), destinan fondos para limpieza y puntos verdes para la recogida selectiva de residuos urbanos. Estos definen qué es un espacio verde de calidad (Chiesura, 2004; Lo & Jim, 2012).

Esta investigación analiza el nivel de conformidad del ciudadano con respecto a los valores pagados en términos de impuestos locales versus calidad de servicios públicos recibidos. Ravald ad Grönro (1996) sugieren que el valor percibido es aplicable a los estudios de satisfacción de servicios públicos. El valor percibido es el resultado de las expectativas de los ciudadanos y de la calidad percibida. (Kim & Park, 2017; Ma et al., 2020).

Esta investigación estudia la satisfacción de los ciudadanos urbanos medida como el bienestar derivado de las decisiones tomadas por los gestores territoriales y municipales. También analiza la fidelidad de los ciudadanos residentes en áreas urbanas, medida como la recomendación de la calidad de los servicios públicos gestionados por las administraciones y sus gestores, así como la recomendación de los residentes a otros ciudadanos. De esta manera ciudadanos satisfechos y leales contribuyen a la lucha contra la despoblación, un problema que preocupa de sobremano a las administraciones públicas. Este estudio también es innovador porque utiliza un modelo de ecuaciones estructuradas con variables moderadoras (PQTPR, PQMS, PQCE).

Este estudio amplía la literatura existente sobre satisfacción y lealtad ciudadana en áreas urbanas, en tres dimensiones: Calidad esperada en planificación territorial, servicios municipales y gestión medioambiental Armis & Kanegae, (2020). Una vez que los ciudadanos han decidido establecer su residencia en el casco urbano, se estudia la calidad percibida con respecto a las mismas dimensiones. La diferencia entre la calidad esperada y la calidad percibida genera en los ciudadanos un valor percibido de la ciudad en la que residen Echaniz et al., (2018). Este estudio agrega el concepto de constructos moderadores a la teoría clásica del Modelo de Ecuación Estructural Authors, (2019). Se proponen tres hipótesis específicas para analizar el efecto

moderador de los constructos de calidad percibida sobre la relación causal valor percibido - satisfacción y dos hipótesis que analizan las relaciones causales que generan satisfacción y lealtad ciudadana como elemento de medición de bienestar (Hernandez et al., 2016).

Los gestores responsables de las políticas territoriales en las áreas urbanas deben disponer de información relevante sobre la opinión de los ciudadanos para poder planificar políticas que mejoren las expectativas de los potenciales nuevos ciudadanos y turistas (Chen, 2010; Song et al., 2013). Este estudio implementa un modelo de ecuaciones estructurales basado en el Índice de satisfacción del cliente estadounidense, que es un modelo que ha sido completamente probado para su uso en investigaciones sobre la calidad esperada, calidad percibida, valor percibido, satisfacción y lealtad. (Fornell et al., 1996; Awwad, 2012).

Existen pocos estudios que incluyen variables moderadoras en las relaciones causales entre constructos (Hagger et al., 2018; Parasuraman et al., 1985).

Con base en la literatura que respalda los constructos propuestos para el estudio, se formulan las siguientes hipótesis (Figura 1):

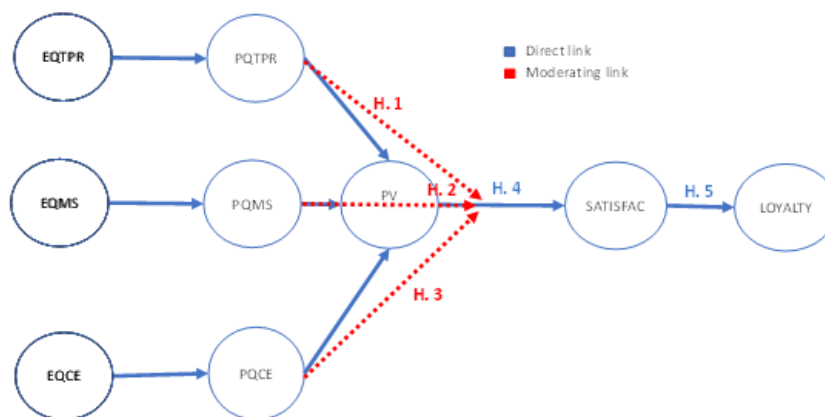
Hipótesis 1 (H1). La calidad percibida de la experiencia de planificación territorial en áreas urbanas (PQTPR) modera positiva y significativamente la relación directa entre el valor percibido (PV) y la satisfacción ciudadana (SATISFAC).

Hipótesis 2 (H2). La calidad percibida de la experiencia en la prestación de servicios públicos municipales en áreas urbanas (PQMS) modera positiva y significativamente la relación directa entre el valor percibido (PV) y la satisfacción ciudadana (SATISFAC).

Hipótesis 3 (H3). La calidad percibida de la gestión medioambiental del ciudadano en áreas urbanas (PQCE) modera positiva y significativamente la relación directa entre el valor percibido (PV) y la satisfacción del ciudadano. (SATISFACCIÓN).

Hipótesis 4 (H4). El valor percibido por el ciudadano en las zonas urbanas (PV) influye positiva y significativamente en la satisfacción general del ciudadano. (SATISFECHO).

Hipótesis 5 (H5). La satisfacción general del ciudadano en los servicios públicos (SATISFAC) influye positiva y significativamente en la lealtad general del ciudadano (LEALTAD).



**Figura 1.** Modelo teórico de investigación.

## Metodología

### Instrumentos

El cuestionario consta de cinco secciones:

Sección 1: Experiencia en planificación territorial y planificación vial. Cuestiones sobre Zonificación y urbanismo, Carreteras y aceras, Organización del tráfico y cruces, Servicio de Transporte Público, Servicios de aparcamiento, Información de direcciones, Servicios terminales de transporte, Satisfacción global en la experiencia de planificación territorial y viaria.

Sección 2: Experiencia en la prestación de servicios municipales. Consultas sobre Relación Calidad/Precio, Servicios de Alcantarillado y Alcantarillado, Servicio de Recogida de Basura y Limpieza Ambiental, Calidad del Agua Potable, Parques y Jardines, Servicios de Policía Municipal, Alumbrado Público y Vial, Conservación de Estructuras Históricas y Culturales, Actividades Culturales, Equipamientos Sociales y Culturales, Servicios de inhumación, Actividades Sociales, Servicios Bomberos, Servicios Deportivos, Servicios Veterinarios, Global Satisfacción en la experiencia de prestación del servicio municipal.

Sección 3: Gestión medioambiental. Preguntas sobre Contaminación acústica, Contaminación del Aire, Contaminación visual, Áreas Verdes, Puntos de Reciclaje, Satisfacción Global de la Gestión Ambiental del Ciudadano.

Sección 4: Lealtad ciudadana. ¿Recomendarían los servicios que brinda el Municipio de Guayaquil?, ¿Recomendarían a familiares o amigos que viven fuera de la ciudad mudarse a vivir a Guayaquil?, ¿Recomendarían a familiares o amigos que viven fuera de la ciudad hacer

turismo en Guayaquil?, ¿Recomendaría a amigos o familiares a votar por el alcalde de Guayaquil?, ¿Volvería a votar por el alcalde de Guayaquil?

Bloque 5: Perfil Sociodemográfico. Sexo, edad, nivel de estudios, categoría profesional, nivel de ingresos familiares.

Las variables utilizadas para medir la fidelidad de los ciudadanos que residen en Guayaquil, 1) la calidad esperada en el planeamiento territorial y vial (EQTPR) 2) la calidad esperada en la prestación de los servicios municipales (EQMS), 3) la calidad esperada en la experiencia del ciudadano ambiental (EQEEC) , 4) calidad percibida del planeamiento territorial y vial (PQTPR), 5) calidad percibida de la prestación de los servicios municipales (PQMS), 6) calidad percibida de la gestión medioambiental (PQEEC), 7) valor percibido (PV), 8) satisfacción (SATISFAC) y 9) lealtad (LOYALTY).

### Muestra

Para el estudio que incluye la zona urbana, la recolección de datos se realizó en la ciudad de Guayaquil en una zona urbana denominada Tarquí, considerada como el sector de mayor crecimiento urbano. La ciudad de Guayaquil es un territorio apropiado para realizar esta investigación: es una ciudad portuaria, que abre puertas a las playas del Pacífico y las Islas Galápagos; es la ciudad más grande y con mayor densidad poblacional de la República del Ecuador, con 2.698.077 habitantes, lo que corresponde al 15.6% de la población ecuatoriana. Es considerada como la capital económica del país por el dinamismo que genera en la actividad comercial, industrial, de servicios y agropecuaria, además cuenta con la infraestructura municipal más grande del país,



encargada de brindar los servicios públicos a los ciudadanos a través de 27 áreas administrativas y operativas y empresas públicas que realicen la labor de prestación de servicios de competencia municipal.

Se divide geográficamente en 16 áreas urbanas y 5 rurales. El universo de estudio es 1.050.826 habitantes que corresponde al 38.9% de la población total de Guayaquil. La parroquia urbana Tarqui, se caracteriza por ser un polo de desarrollo urbano y de mayor crecimiento económico, lo que lleva a una mayor demanda de calidad en servicios públicos.

Los datos fueron obtenidos de una encuesta de opinión basada en el American Customer Satisfaction Index (ACSI), que contiene 80 preguntas, clasificadas en 9 constructos, realizadas a nivel de hogar. Se calculó una muestra aleatoria simple representativa de 550 viviendas con un margen de error de 5 % y nivel de confianza del 95%, logrando respuestas favorables de 521 familias, encuestando a un representante de cada hogar.

**Tabla 1.**  
*Perfil Sociodemográfico de los visitantes.*

Variable	Categoría	Frecuencia	Porcentaje
<b>Sexo (n=521)</b>	Hombre	282	54.1
	Mujer	239	45.9
<b>Edad (n=521)</b>	>30	233	44.7
	[30-39]	165	31.7
	[40-49]	67	12.9
	[50-59]	40	7.7
	60 o más	16	3.1
<b>Estudios (n=521)</b>	Sin Estudios	1	0.2
	Escuela primaria	36	6.9
	Escuela secundaria	266	51.1
	Universidad	207	39.7
	Postgrado	11	2.2
<b>Ingreso familiar (n=521)</b>	Menos de 400 dólares	367	70.4
	Entre 400 y 2000 dólares	146	28
	Entre 2001 y 5000 dólares	4	0.8
	Entre 5001 y 10000 dólares	2	0.4
	Más de 10001 dólares	2	0.4

**Fuente:** Elaborado por Autores.

Los ciudadanos fueron informados de los propósitos académicos y el anonimato del estudio antes de completar el cuestionario. Se solicitó el consentimiento verbal antes de que los

Los datos fueron recolectados por un grupo de encuestadores capacitados previamente del 5 al 11 de octubre de 2020, obteniendo información sociodemográfica relevante, así como los niveles de calidad esperada (expectativa), percibida, satisfacción y lealtad de los encuestados en cada ítem contenido en el cuestionario. Se implementó una escala tipo Likert que va de uno a siete puntos para cada afirmación propuesta (Csapo, 2012).

La muestra cubre todos los segmentos de edad, nivel de estudios, categoría profesional y nivel de ingresos (Farooq et al., 2018). Los encuestados autorizaron el uso de la información obtenida para la presente investigación.

La tabla 1 muestra el perfil sociodemográfico de la muestra. El 46,9% de los entrevistados fueron mujeres, frente al 54,1% de hombres. Los cuestionarios fueron respondidos principalmente por jóvenes menores de 30 años (44,7%) que habían estudiado en la escuela secundaria (51,1%).

ciudadanos completaran el cuestionario. Las preguntas de las primeras cuatro partes del cuestionario utilizaron una escala de Likert de siete puntos, donde uno significó totalmente en

desacuerdo y siete totalmente de acuerdo. La participación en el estudio fue voluntaria.

Los datos de la investigación se tabularon y analizaron usando (PLS-SEM), usando el software Warp-PLS 7.0 (ScriptWarp Systems, PO Box 452428, Laredo, Texas, 78045 EE. UU.).

## Resultados

### Validación

El modelo propuesto se ha construido a partir de las variables latentes y observadas y de la revisión teórica. Una vez validado el cuestionario, se utilizó Warp-PLS para estimarlo.

Se ha validado la fiabilidad individual de las variables observadas, las variables latentes y la validez convergente, y se ha calculado la bondad de ajuste del modelo.

Para comprobar la validez y fiabilidad de los ítems (Carmines & Zeller, 1979), se analizó la Colinealidad. Se verificó que el valor de varianza del factor de inflación (VIF) es más significativo que cinco. Los resultados no mostraron colinealidad en las variables utilizadas para cada variable latente. A continuación, se confirma la fiabilidad individual de las cargas factoriales de los artículos. Con base en los resultados de estos cálculos, el modelo de medición se consideró válido y confiable, lo que significa que el modelo estructural puede ser analizado. Fornell y Larcker, (1981a) y Barclay et al., (1995).

Para saber si los ítems observados miden estricta y adecuadamente la variable latente o constructo del que forman parte, se estudian los valores de fiabilidad compuestos, así como el Alfa de

Cronbach, verificando si son mayor o igual a 0,7 (Tabla 3) (Nunnally & Bernstein, 1978).

Mantener los valores de 0.707 es necesario para que una variable sea aceptada como parte de un constructo. Una vez estudiada la fiabilidad individual, se procedió a analizar la validez y fiabilidad de los constructos.

El análisis consistió en evaluar la colinealidad y verificar que el valor de la varianza del factor de inflación (VIF) sea mayor a cinco. Los resultados no mostraron colinealidad en las variables utilizadas para el constructo lealtad.

Después de este análisis, podemos afirmar que los resultados indicaron una confiabilidad individual casi óptima, ya que todos los valores de carga estuvieron por encima del umbral mínimo requerido de 0.505 o 0.6 según (Fornell & Larcker, 1981b).

El análisis reveló que las cargas eran estadísticamente significativas al 99,99 %. Con base en los resultados de estos cálculos, el modelo de medición se consideró válido y confiable, lo que significó que luego se pudo analizar el modelo estructural.

Para comprobar si las variables observadas miden de forma rigurosa y adecuada la variable latente que representan, siguiendo el Alfa de Cronbach y se toman valores de fiabilidad compuesta, comprobando si son superiores o igual a 0,7 (tabla 2). Como todos los valores superan este límite inferior, se confirma la fiabilidad de los constructos de primer orden y su capacidad para medir la Lealtad. En nuestro análisis, todos los constructos superaron un valor de 0,7 lo que significa que no puede haber dudas sobre la capacidad de los constructos para medir la Lealtad.

**Tabla 2.**  
*Fiabilidad compuesta y Alfa de Cronbach.*

	Fiabilidad compuesta	Alfa de Cronbach
PV	0.939	0.930
SATISFECHO	0.910	0.851
LEALTAD	0.939	0.918
EQTRP	0.966	0.958
PQTRP	0.911	0.911
EQMS	0.973	0.973
PQMS	0.935	0.935
EQCE	0.954	0.954
PQCE	0.877	0.877

**Fuente:** Elaborado por Autores.

**Validez convergente**

Para evaluar la validez convergente de un conjunto de variables, es decir, si explica un constructo y no otro, se utiliza la varianza media extraída (AVE), que es el criterio de aceptación más utilizado en las investigaciones para evaluar este concepto (tabla 3). Fornell & Larcker,

(1981a) determinó que el valor mínimo del AVE debe ser mayor a 0.5, lo que significa que el constructo comparte más de la mitad de su varianza con sus indicadores, el resto de la varianza se explica por el error de medida. En base a los resultados obtenidos, podemos confirmar que las mediciones realizadas son válidas.

**Tabla 3.**  
*Varianza Media Extraída.*

Varianza media extraída (AVE)	
EQTRP	0.800
PQTRP	0.593
EQMS	0.769
PQMS	0.509
EQCE	0.840
PQCE	0.640
PV	0.479
SATISFACIÓN	0.771
LEALTAD	0.755

**Fuente:** Elaborado por Autores.

**Bondad de ajuste del modelo:** Para verificar la bondad de ajuste del modelo propuesto, en la

tabla 4 se calcularon diferentes parámetros que abordan dicha bondad.

**Tabla 4.**  
*Bondad de ajuste del modelo.*

Coefficiente de trayectoria promedio (APC)	0.427	
R-cuadrado promedio (ARS)	0.559	p<0,001
R-cuadrado medio ajustado (AARS)	0.558	
Bloque medio VIF (AVIF)	3.008	aceptable si <= 5, idealmente <= 3.3
Colinealidad completa promedio VIF (AFVIF)	4.807	
Tenenhaus GoF (GoF)	0.653	pequeño >= 0,1, mediano >= 0,25, grande >=
Relación de paradoja de Sympon (SPR)	0.909	
Relación de conteo de diferencia de umbral estandarizada (STDCR)	0.984	aceptable si >= 0.7, idealmente = 1
Relación de suma de diferencia de umbral estandarizada (STDSR)	0.922	
Ratio de contribución R-cuadrado (RSCR)	0.992	aceptable si >= 0.9, idealmente = 1
Relación de supresión estadística (SSR)	1.000	
Relación de dirección de causalidad bivariada no lineal (NLBCDR)	0.909	aceptable si >= 0.7
Residuo cuadrático medio estandarizado (SRMR)	0.081	
Residual absoluto medio estandarizado (SMAR)	0.061	aceptable si <= 0.1

**Fuente:** Elaborado por Autores

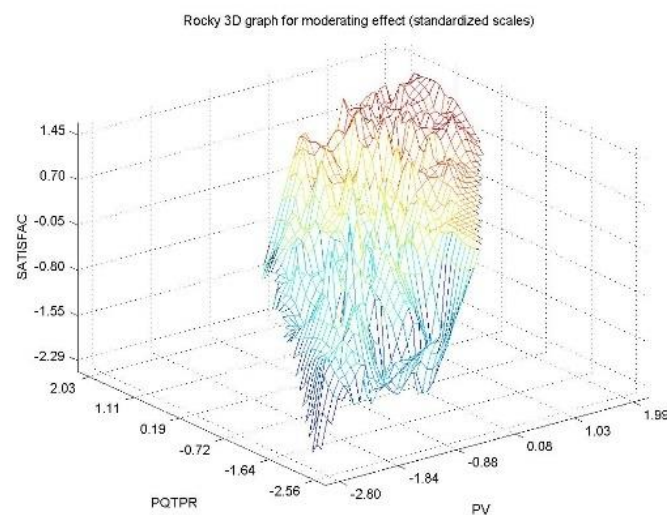
Una vez comprobados y validados todos los constructos, así como la bondad del ajuste del modelo, podemos afirmar que los resultados obtenidos son adecuados y justifican su validez y

aplicabilidad. Luego se calculó la significancia del Coeficiente de las relaciones causales (tabla 5).

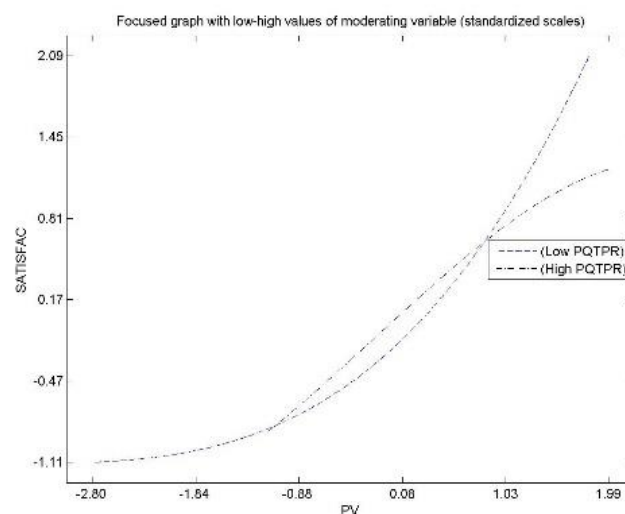
**Tabla 5.**  
Contraste de relaciones causales.

Relaciones causales	Efecto	Coefficiente causal	¿Soportado?
EQTRP-PQTRP	+	0.752***	-
EQMS-PQMS	+	0.771***	-
EQCE-PQCE	+	0.614***	-
PQTRP-PV	+	0.128**	-
PQMS-VP	+	0.755***	-
PQCE-PV	+	0.100**	-
H1: PQTRP->PV-SATISFAC	+	0.072*	SÍ
H2: PQMS-> PV- SATISFAC	+	-0.020	NO
H3: PQCE->PV-SATISFAC	+	0.121**	SÍ
H4: VP - SATISFAC	+	0.648***	SÍ
H5: SATISFACCIÓN - LEALTAD	+	0.719***	SÍ

Fuente: Elaborado por Autores



**Figura 2a.** Hipótesis 1 3D, PQTRP->PV-SATISFAC



**Figura 2b.** Hipótesis 1 2D, PQTRP->PV-SATISFAC

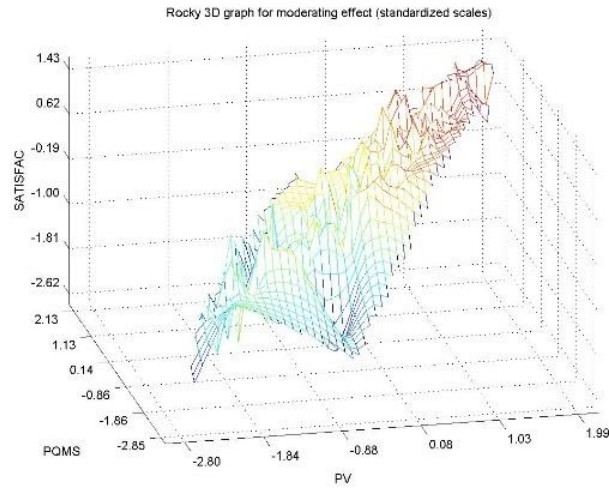


Figura 3a. Hipótesis 2 3D, PQMS-> PV- SATISFAC

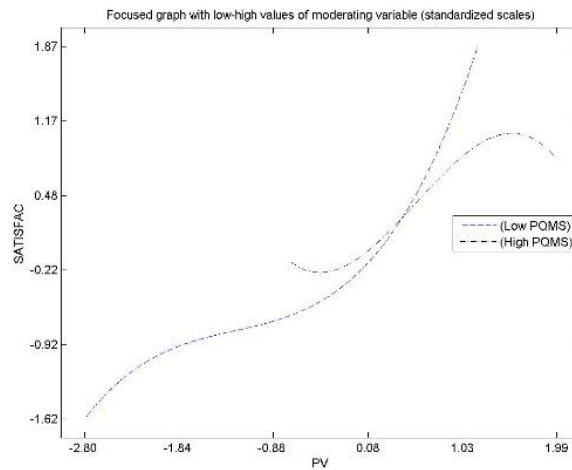


Figura 3b. Hipótesis 2 2D, PQMS-> PV- SATISFAC

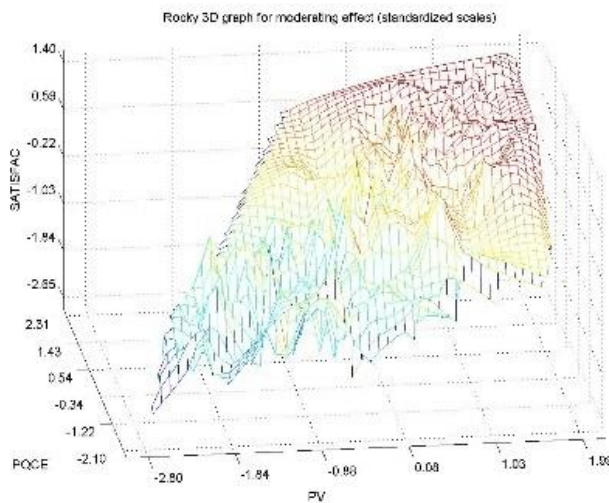


Figura 4a. Hipótesis 3 3D, PQCE-> PV-SATISFAC

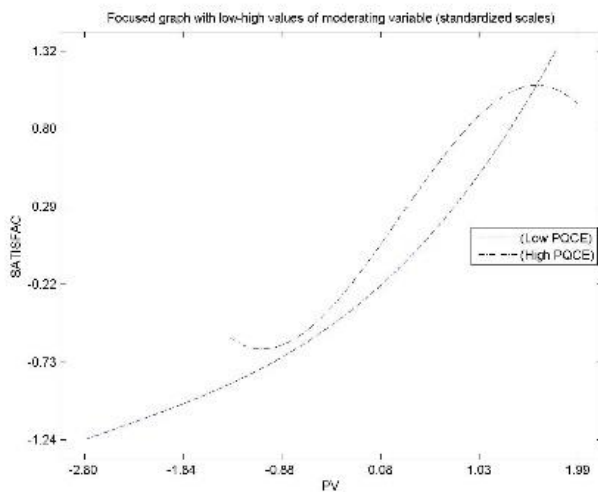


Figura 4b. Hipótesis 3 2D, PQCE-> PV-SATISFAC

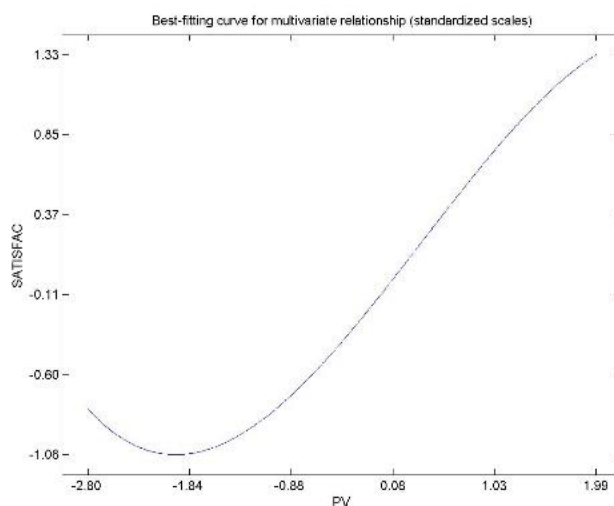


Figura 5. Hipótesis 4, PV – SATISFAC

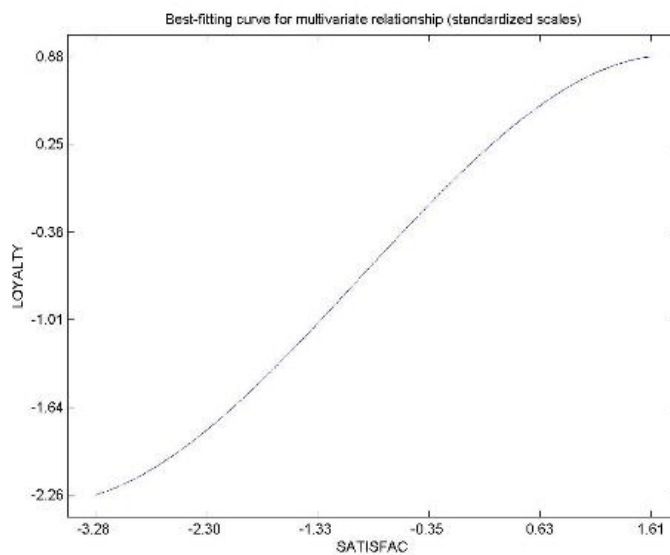


Figura 6. Hipótesis 5, SATISFAC - LEALTAD

Se soportaron las hipótesis H1, H3, H4 y la H5.

Los valores de los coeficientes estructurales de los constructos se muestran en la figura 7. La

probabilidad límite (p-Valor) de cada uno se utiliza para validar la importancia de las relaciones entre los constructos del modelo propuesto.

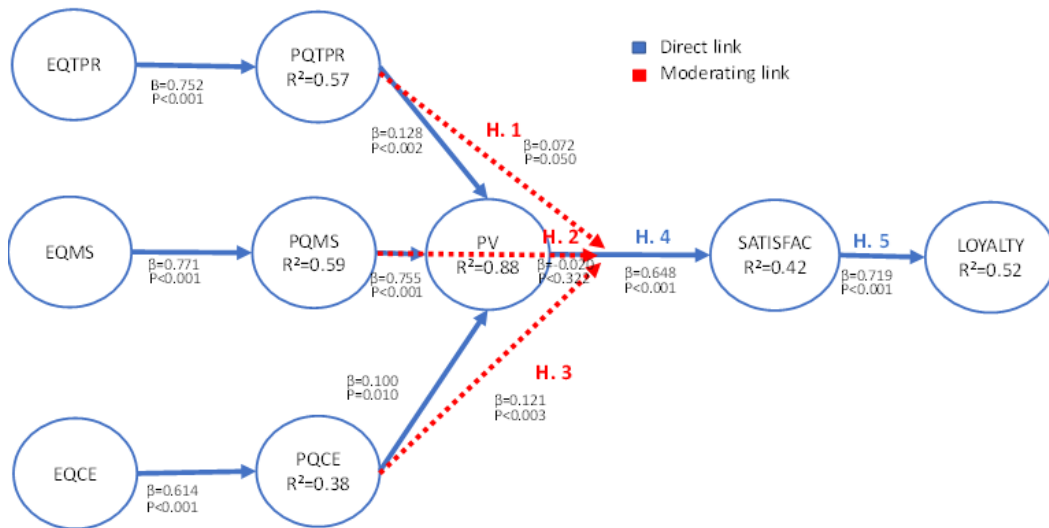


Figura 7. Coeficientes estructurales de las relaciones causales y p-valor.

### Discusión

Los territorios, cada uno con sus características propias y sus posibilidades presupuestarias, tratan de satisfacer a los ciudadanos que habitan en el mismo. Los ciudadanos satisfechos recomiendan con familiares, amigos las áreas provistas de servicios públicos adecuados y que cubran las necesidades de la población. La administración pública tiene, entre otros, el objetivo de preservar las áreas urbanas, manteniendo el valor sostenible de los territorios como destinos residenciales y turísticos (Alkrajji & Ameen, 2021).

Este estudio propone un modelo de ecuaciones estructurales con variables latentes moderadoras de las relaciones causales que configuran el grado de satisfacción ciudadana. Se analizó la lealtad de los residentes en el área urbana de Guayaquil. Los resultados obtenidos en el estudio confirman la mayoría de las hipótesis propuestas en el modelo teórico convirtiendo esta investigación en una herramienta para mejorar la competitividad de un destino para atraer turistas.

Los ciudadanos de las áreas urbanas tienen expectativas altas en la provisión de servicios públicos, en planificación y viabilidad territorial, así como en la gestión ambiental influyendo en la decisión de establecer la residencia. Una vez que los ciudadanos han decidido establecer la residencia en el territorio y han experimentado

los servicios públicos generan una percepción de la calidad. Los principales factores que generan satisfacción en los ciudadanos de las zonas urbanas son: los servicios de aparcamiento, servicio de extinción de incendios, calidad del agua potable, servicios de alcantarillado y alcantarillado, limpieza urbana y recogida de basuras, parques y jardines., conservación de monumentos históricos y culturales, actividades culturales, actividades sociales, servicios deportivos y calidad del aire (Delpla et al., 2020).

Hipótesis 1 (Figura 2a.) La calidad percibida de la planificación territorial en áreas urbanas modera positiva y significativamente la relación entre el valor percibido y la satisfacción medida como generador de bienestar (Özbil et al., 2015; Lercher, 2019). La Figura 2b muestra una forma sinusoidal en la relación entre valor percibido y satisfacción, tanto para valores altos como para valores bajos de la variable moderadora (calidad percibida en planificación territorial y viabilidad). Lo que significa que, al aumentar la calidad percibida de la planificación territorial y la viabilidad, no solo se influye en el valor percibido sino también en la relación causal entre el valor percibido y la satisfacción. Este resultado muestra que existe un aumento en la satisfacción general de los ciudadanos que residen en áreas urbanas.

Hipótesis 2 (Figura 3a.) Es una hipótesis no significativa, por lo tanto, no se cumple,

concluyendo que la calidad percibida de los servicios municipales no modera la relación directa entre el valor percibido de la ciudadanía y la satisfacción.

Hipótesis 3 (Figura 4a.) La calidad percibida de la gestión medioambiental en el territorio modera positiva y significativamente la relación entre el valor percibido y la satisfacción (Ren et al., 2021). La Figura 3b muestra que cuando los valores de la variable moderadora calidad percibida en la gestión medioambiental son bajos, la relación causal entre valor percibido y satisfacción tiene una influencia directa. Esto quiere decir que si la percepción de la calidad es media o baja la relación causal valor percibido y satisfacción es directamente proporcional. Cuando los valores de la variable moderadora son altos, la relación valor percibido - satisfacción tiene una forma sinusoidal, achatada en los extremos. La confirmación de esta hipótesis significa que, al aumentar la calidad percibida de la gestión medioambiental del territorio en áreas urbanas, influye en el valor percibido y también en la relación entre el valor percibido y la satisfacción.

Hipótesis 4 El valor percibido por el ciudadano residente en un área urbana influye en la satisfacción y bienestar (von Wirth et al., 2016). La Figura 5 empieza con un comportamiento negativo, volviéndose positivo y significativo generando una influencia directa en la satisfacción del ciudadano urbano. Este resultado también ha sido observado por otros autores concluyendo que las expectativas de los ciudadanos de las zonas urbanas pueden incrementar la satisfacción al proporcionarles un conjunto de experiencias y sensaciones derivadas de políticas territoriales de vialidad, mejoramiento en la provisión de servicios públicos y una adecuada gestión ambiental. por parte de los gestores públicos. Esto se puede lograr diseñando política pública encaminada a planificar de manera ordenada la ciudad y generando bienestar social con el fin de crear arraigo territorial por parte de la población.

Se confirma la hipótesis 5, que propone una influencia positiva y significativa entre la satisfacción de los ciudadanos urbanos y la lealtad lo cual genera que el territorio sea recomendado a familiares y amigos. La lealtad ciudadana no sólo fija la población, sino que actúa como polo de atracción de otros ciudadanos para incrementar el turismo. Los gestores públicos a través de la implementación de políticas territoriales pueden lograr maximizar la satisfacción y fidelización de los ciudadanos de

las zonas urbanas. La figura 6 muestra la relación directa de la relación causal satisfacción – lealtad. Los resultados mostraron que la calidad de los servicios públicos, la satisfacción, y la lealtad son factores positivos que influyen en la decisión de un ciudadano de establecer su residencia o escoger al territorio como destino turístico, así como recomendar dicho destino. Este resultado concuerda con investigaciones previas (Yu & Kim, 2020).

## Conclusiones

A manera de conclusión se destaca que los servicios peor calificados por los ciudadanos, generando una baja calidad percibida son los servicios de policía municipal. La seguridad ciudadana es un factor fundamental que puede atraer o provocar movimientos de población. Asimismo, la experiencia ambiental del ciudadano es claramente mejorable en cuanto a calidad del aire, contaminación acústica, zonas verdes y puntos de reciclaje, calidad de los parques y jardines, el adecuado alumbrado público y los servicios deportivos.

Los resultados de este estudio son consistentes con los encontrados en estudios previos que indican que la satisfacción influye positivamente en la lealtad de los ciudadanos que establecen su destino en una zona urbana. Este estudio plantea las fortalezas y deficiencias en la provisión de servicios públicos en las áreas urbanas como un medio para lograr arraigo al territorio.

Esta investigación identifica factores que los ciudadanos consideran importantes a la hora de determinar su residencia en un destino urbano. Los servicios de extinción de incendios fueron los mejores calificados. Las áreas urbanas deben poder combinar políticas públicas municipales que vinculen al ciudadano con el destino. Las limitaciones de este estudio se relacionan con la muestra debido a que los datos se obtuvieron en el área urbana de Guayaquil, lo que significa que los datos recolectados solo son válidos para un tipo de ciudadano. Se deja abierto un camino hacia futuras investigaciones dirigidas a otras zonas urbanas a fin de proponer comparaciones de resultados. Este estudio debe ser realizado de forma periódica a fin de analizar la evolución en el comportamiento de los ciudadanos.

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## Coordination of the fight against organized crime resulted from corruption

### Координація боротьби з організованою злочинністю, що формується на основі корупційних зв'язків

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#### Abstract

The aim of the article was to establish the features and trends of the legal regulation in the field of coordination of the fight against organized crime by the competent authorities. The chosen research topic identified comparative legal approach to scientific research as the leading one. A set of general scientific (dialectical, historical, systemic, statistical) and narrow scientific (legalistic, case method) methods of cognition was also used.

It was stated in this research that punitive measures can have only a limited impact on reducing the manifestations of organized crime with a corruption component. Such measures should be part of a sustainable, long-term comprehensive strategy to reduce the space for organized crime and corruption, coordinated by the state while legalizing clear powers and effective mechanisms for cooperation between the competent law enforcement agencies and the public in this area.

Further research should be based on national identity, criminological factors of organized crime, and drivers of corruption in government

#### Анотація

Метою статті було встановлення особливостей та тенденцій розвитку правового регулювання у сфері координації компетентними органами процесів боротьби з організованою злочинністю. Обрана тематика дослідження визначила в якості провідного порівняльно-правовий підхід до наукового пошуку. Також використано комплекс загальнонаукових (діалектичний, історичний, системний, статистичний) й приватно-наукових (формально-юридичний, конкретно-соціологічний) методів пізнання.

У рамках наукового пошуку констатовано, що безпосередньо каральні заходи можуть мати лише обмежений вплив на зменшення проявів організованої злочинності із корупційною складовою. Такі заходи повинні бути частиною стійкої, довгострокової та всебічної стратегії зменшення простору для організованої злочинності та корупції, скоординованої державою із одночасною легалізацією чітких повноважень та ефективних механізмів співпраці компетентних правоохоронних органів та громадськості у цій сфері.

Подальші дослідження повинні базуватися на національній ідентичності, кримінологічних

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institutions. Future reform of the current legislation should reasonably take into account foreign experience, as well as the innovative components of the development of national criminal groups.

**Keywords:** organized crime, corruption, criminal groups, anti-corruption strategy, law enforcement.

## Introducción

In the modern context, it is impossible to talk about significant achievements in the field of overcoming corruption, as it has become systemic. Moreover, the list of subjects of corrupt relations is constantly expanding, creating a foundation for further criminal manifestations. In some definitions, corruption is interpreted as a complex of three groups of criminally punishable acts: a) theft and misappropriation of state property by officials; b) abuse of office for unjustified personal gain; c) conflict of interest between public duty and personal gain (Johnston, 2014).

The world community has been actively fighting for many years to minimize corruption. It is widely acknowledged that the fight against corruption affects the interests of almost all states. In today's globalized society, the fight against corruption creates a range of problems that affect all spheres of society. Without denying the frequent cases of corruption for government purposes, it can be stated that the need for international efforts to successfully solve these problems is recognized by scholars and experts in various fields, as well as public and state figures in different countries (Torcello & Venard, 2016).

Currently, most countries cannot fight cross-border organized crime without cooperation. In turn, the achievement of effective law enforcement is possible in the presence and active testing of the strategy for fighting against organized crime, national coordination of compliance with the strategy and international cooperation.

Organized crime is changing qualitatively despite the effective implementation of mechanisms for prevention and investigation of crimes by law enforcement agencies (Polianska, 2018). Global transformations show that the spheres of activity of organized criminal groups are also being modernized. Most illegal activities

чинниках прояву організованої злочинності, рушійних факторах зростання корупційних зв'язків у владних інституціях. Майбутнє реформування чинного законодавства має враховувати закордонний досвід виражено та з урахуванням інноваційних складових розвитку національних злочинних угруповань.

**Ключові слова:** організована злочинність, корупційні зв'язки, злочинні угруповання, антикорупційна стратегія, правоохоронна діяльність.

are manifested in drug and human trafficking; smuggling of historical artifacts; trade in tobacco products and alcohol; in money laundering and other areas.

According to the Corruption Perceptions Index (2020) published by Transparency International, all countries in the modern geopolitical space are more or less affected by corruption. The least corrupt countries are New Zealand and Denmark. Over the last year, Ukraine's Corruption Perceptions Index have increased by 3 points, and today this country ranks 117th out of 180 countries in this list (Transparency International Ukraine, 2020). During the first twenty years of Ukraine's independence, corruption increased in the state machinery, private enterprises and acquired the features of an independent social institution. The activity of state institutions in Ukraine is characterized by the corruption schemes, which have become one of the most serious problems.

Thus, corruption is inherent, albeit to varying degrees, in all countries, regardless of their political system or economic level of development. The subject of the article is especially urgent because of the severity of the existing problem, its huge scale, the affection of all spheres of society and all levels of government. Such manifestations of corruption contribute to the construction of a complex and multilevel system of organized crime.

In recent years, Ukraine has made many efforts to fight against corruption and crime, the main recommendations of relevant international organizations have been implemented, including: the National Anti-Corruption Bureau of Ukraine (NABU), the National Agency on Corruption Prevention (NAPC), the Specialized Anti-Corruption Prosecutor's Office and others. Unfortunately, these measures have proved ineffective in corruption courts. Anti-corruption bodies have entered the fight against each other,

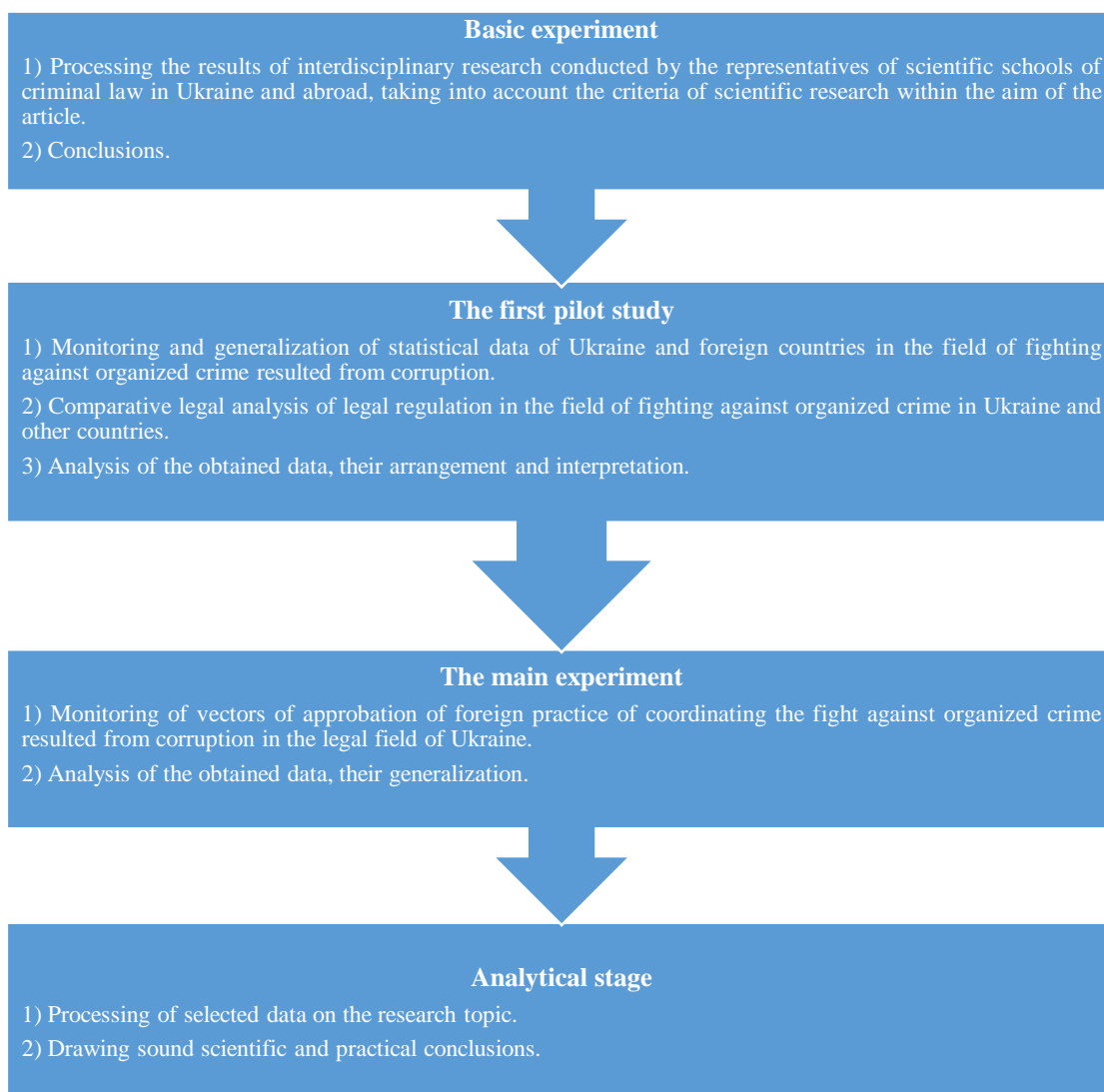
initiating relevant cases. The inability to overcome corruption and organized crime is explained by the penetration of business and criminal representatives into the government agencies of Ukraine. Such agencies, in turn, ensure participation in the formation of executive, law enforcement and judicial bodies, control the majority of Ukrainian media. Oligarchic clans have been characterised by the use of public authorities for their own enrichment through the adoption of laws on lobbying for public procurement, assistance in the form of subsidies and other preferences.

All of the above urges the subject of the article and justifies the topicality of the study. Therefore, the aim of the article is to establish the features and trends of legal regulation in the field of coordination of the fight against organized

crime by the competent authorities, which is directly related to the corruption component. The aim of the article involved the following objectives: 1) establish the features of the legal regulation of coordination of the fight against organized crime in Ukraine; 2) identify the world's leading models for fighting against organized crime resulting from corruption, and their features; 3) outline the vector of adaptation of foreign coordination measures to fight against organized crime in the legal field of Ukraine.

### Methods and materials

This research was conducted using a system of methods and techniques that allowed to cover the maximum number of significant parameters of the topic within the research procedure, which is outlined in Figure 1.



**Figure 1.** Abstract research design

The research involved the provisions of dialectics, as well as a set of general theoretical and private law methods of cognition based on it. The leading practical method that was used during the study was the method of observation. In particular, this method allowed to reflect the author's perception of the coordination of the fight against organized crime resulted from corruption, both in general and in the dynamics of the transformation of legal regulation in Ukraine and foreign countries.

The following methods were also used: legal modelling (modelling of public relations in the field of fight against organized crime and corruption and the ideal system of law enforcement as prevention), observation (study of current trends in current legislation of Ukraine and the activities of law enforcement agencies in the course of law enforcement), formal logic (different types of law enforcement agencies, stages of development of legal framework of their activity), formal legal (generalized legal framework of the activity of law enforcement bodies), hypothetical deductive (is used throughout the article and in the proposed conclusion), rather-legal analysis (allowed to conduct a comparative analysis of domestic and foreign legal regulation in the study area), structurally functional (structural analysis of law enforcement functions) and system-structural (study of the role of competent authorities in the law enforcement system as regards the coordination of the fight against organized crime and corruption offenses), statistical and mathematical (processing the results of statistical reports and surveys), historical and legal (the legal background of law enforcement is considered in retrospect).

The study also used a civilizational approach — as a basis for studying the interpersonal interaction of the subjects involved in legal relations in the field of coordination of the fight against organized crime. The system-activity approach was useful in the process of analysing the mechanisms of transformation of social relations in society as a whole organism. The socio-cultural approach was aimed at identifying the transformation of social relations on the basis of changes in the values of society, attitudes to corruption in various government agencies.

The theoretical and methodological background of the study also included: conflict theory of power, which allowed analysing the process of politicization of organized crime and the use of corruption; capital theory, which expands the research field of public administration by

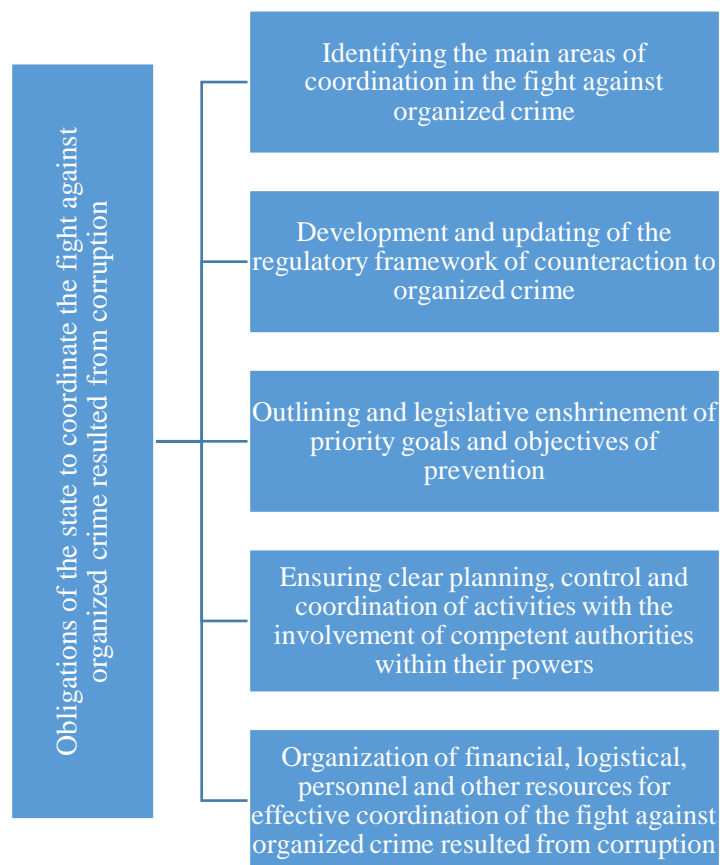
identifying different types and forms of resources, capital, opportunities for their conversion and use in coordinating the fight against organized crime and public administration at the macro and micro levels.

The works of domestic and foreign scientists were used in the research. Forty sources were reviewed, in which special attention was paid to scientific research on the subject of the article. Special attention should be paid to the research of Movchan (2017), in particular the author's conclusions on the essence and content of corruption prevention, their connection with organized crime are tested. The article also includes the conclusions proposed by Momotenko (2014) in the work entitled *Organized Crime in the Modern World: Features and Trends*. In particular, the author expressed the position on the cross-border scope of the fight against organized crime and updated the proposals on further prospects for overcoming it, taking into account the globalization of society. The results of the scientific research of Habuda and Repetskyi (2020) presented in the work *Criminalization of Corruption Offenses in the Criminal Code of Ukraine and International Law: a Comparative Analysis* also contributed to the substantiation of this author's position taking into account modern realities.

Regulatory acts in the field of combating organized crime both on the territory of Ukraine and other states become the central empirical material within the architectonics of the research. It is a comparative analysis of legal regulation in this area that allowed to draw comprehensive conclusions and outline further vectors of research on this issue.

## Results and Discussion

Organized criminal groups, which take advantage of innovative technologies in the context of intensive development of the globalized world, are involved in extremely wide cross-border activities. In general, the guarantee of successful counteraction to the socially dangerous phenomenon under study is the organization of a well-functioning law enforcement system, strict financial, banking, currency, tax control, effective preventive mechanisms to overcome corruption and effective coordination of organized crime. The state and modern society must be aware of the real danger of organized crime resulted from corruption, and express a reasonable position on the way to fight against it. The study outlined the state's priority commitments to coordinate the fight against organized crime, as shown below (Figure 2).



**Figure 2.** The state's priority commitments to coordinate the fight against organized crime  
\*Developed by the author based on the results of the author's own research

It should be noted in this context that the United Nations Office on Drugs and Crime has developed Model Legislative Provisions against Organized Crime as part of an international legislative initiative in this area (United Nations, 2012). It was a response to the General Assembly's request submitted to the Secretary General on assisting Member States in their efforts to accede to the UN Convention against Transnational Organized Crime and the Protocols Thereto (United Nations Office on Drugs and Crime, 2000). This document contributes to the systematization of the procedure for providing legal assistance to the UN Office on Drugs and Crime, as well as the revision and amendment of existing legislation and the adoption of new acts by member states.

Typical legislative provisions are developed with a view to the needs of each state, regardless of its legal traditions, as well as social, economic, cultural and geographical conditions; they already exist for some UN commitments. The Convention against Transnational Organized Crime applies in particular to extradition, mutual assistance in criminal matters, witness protection and money laundering. In turn, the fight against

organized crime in Ukraine is regulated by Law of Ukraine "On Organizational Legal Principles of Struggle against the Organized Crime" dated June 30, 1993 (Law of Ukraine No. 3341-XII, 1993). This legal act seems rather archaic, even in spite of the intensification of renewal processes, and needs to be comprehensively reformed taking into account current realities.

At the same time, strengthening the capacity of law enforcement agencies - actors in the fight against organized crime is impossible without the introduction of a system of criminal analysis and risk analysis of organized crime, which is compatible with EU standards and provides for the development and implementation of standardized Serious and Organized Crime Threat Assessment (SOCTA), its use to assess the real situation in this area, identify gaps in the system of obtaining relevant operational information, successful coordination of the fight against organized crime.

While traditional types of crime, such as corruption offenses, remain a major concern, the effects of globalization in society and business have led to the emergence of new types of crime.



Criminal networks use gaps in legislation, the Internet and conditions related to the economic crisis, for example, to make illicit profits with a low level of risk. One of Europol's main reports, the Serious and Organized Crime Threat Assessment (SOCTA), informs the European law enforcement community and decision-makers of such developments in the field of serious and organized crime and the threat it poses to the EU. Based on the analysis of the prevailing threats, SOCTA identifies a number of high-priority areas of crime on which the EU's operational response should focus. Europol's current SOCTA report, published in 2021, states that the use of corruption and abuse of legal business networks are key features of organized crime in Europe. Two-thirds of criminals regularly use corruption. Besides, the following eight priority threats to crime have been identified: cybercrime; production, circulation and distribution of drugs; illegal import of migrants; organized crime against property; human trafficking; money laundering; forgery of documents; online trade in illegal goods and services (Europol, 2021).

In this context, it is advisable to refer to the positive foreign practice of coordinating the fight against organized crime resulted from corruption. There are 3 models of combating corruption among the states that have succeeded in combating corruption and organized crime. The first model is presented in the countries of Northern and Western Europe (especially well expressed in the Scandinavian countries). State institutions in Norway, Sweden, Finland, Denmark are among the best in the world, they often combine the principles of social and legal state. The focus of their coordination in the fight against organized crime is free competition in the economy, a developed civil society, and the high role of the media in covering corruption crimes and crimes committed by organized groups. The experience of one of the most non-corrupt states, the Netherlands, is also worth attention. The manifestations of organized crime in this country are minimized through a successful national policy. According to The Netherlands 2020 Crime & Safety Report (Overseas Security Advisory Council, 2020), the state carries out operational control over the system of coordination of the fight against crime, operational detection of money laundering, which also reduces the growth of drug trafficking — a manifestation of crime, which currently resists total eradication in this country.

Another anti-corruption model is presented in the countries of Southeast Asia, first of all, in

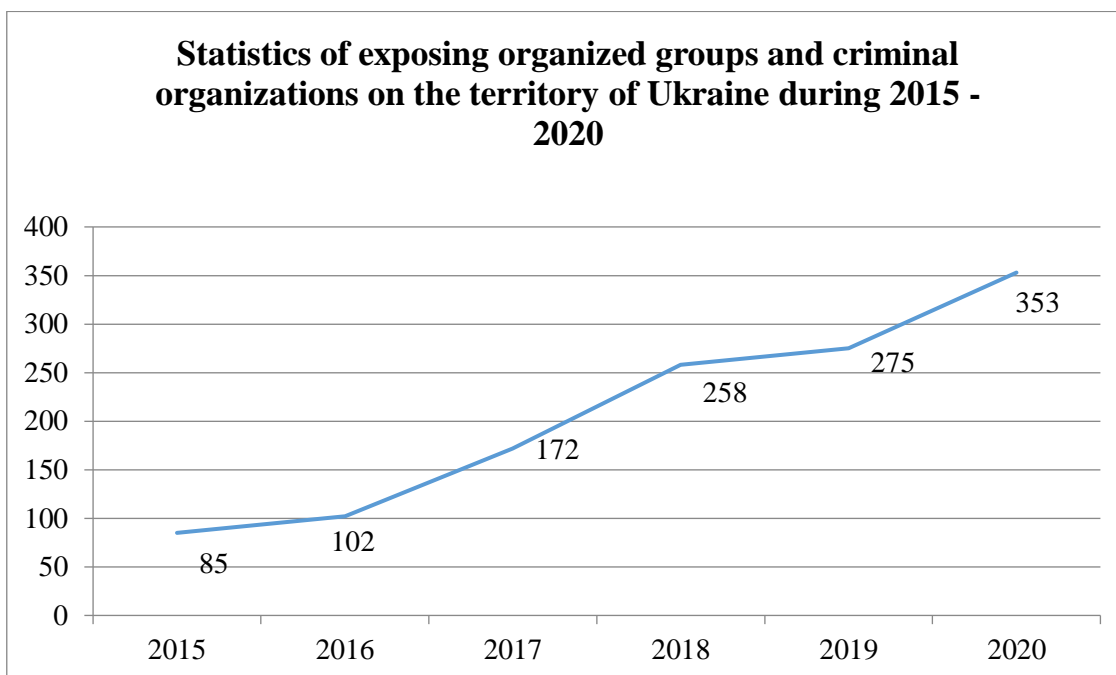
Singapore, Hong Kong, Taiwan, Malaysia. This model also includes South Korea and Japan. Its specifics is a comprehensive personnel policy, the maximum possible distance of the state from economic regulation, the creation of special anti-corruption bodies, equality before the law and the legalization of severe punishment for corruption crimes. The third model — the “American anti-corruption model” (USA, Canada, Australia) — is characterized by a combination of strict restrictive laws with a system of incentives and incentives to prevent corruption and organized crime. “US anti-corruption legislation is systemic. It also consists of legal acts regulating lobbying, banking, exchange and other activities. Although this is not a guarantee of the complete eradication of corruption, it is much lower in the United States than in other countries.

Not all countries are able to pursue successful anti-corruption policies and coordinate the fight against organized crime. Some countries (such as China) focus on repressive measures to combat political corruption, which are currently yielding very low results and promoting the activities of organized groups. Others (including Georgia) defeat corruption at the domestic level, while political corruption remains virtually intact and creates the ground for further criminal action. No state can be a model, so taking the experience of coordinating the fight against organized crime resulted from corruption from foreign countries requires a very careful adaptation of the positive experience to the conditions, traditions, cultural features, level of development and other indicators.

Immediately after Ukraine's gained independence, there was a need for cooperation in the fight against organized crime and its corruption component. The adoption of the new Criminal Code of Ukraine (Law of Ukraine No. 2341-III, 2001) in 2001 provided additional opportunities to influence the further development of organized crime, its individual forms. In particular, new legal grounds for prosecuting persons participating in such criminal organizations have been legalized. It should be noted that the basic provisions of the institution of complicity in organized criminal activity are enshrined in Articles 28, 29 and 30 of the Criminal Code of Ukraine (Law of Ukraine No. 2341-III, 2001). This legal act enshrines the definitions of the terms “organized group” and “criminal organization”, as well as the legal norm on criminal liability for the establishment of a criminal organization (Article 255 of the Criminal Code of Ukraine).

When analyzing the state of the fight against organized crime in Ukraine, it is advisable to refer to statistics. The Report of the National Police of Ukraine on the Results of 2020 (Cabinet of Ministers of Ukraine, 2020b) shows that 353 organized groups and criminal organizations were identified and neutralized in

Ukraine during 2020, which is 78 more criminal groups than last year. The increase in the effectiveness of the National Police of Ukraine in the field of exposing organized groups and criminal organizations on the territory of Ukraine from 2015 to 2020 is shown in Figure 3.



**Figure 3.** The increase in the effectiveness of the National Police of Ukraine in the field of exposing organized groups and criminal organizations on the territory of Ukraine from 2015 to 2020

\*Summarized by the author according to the reports of the National Police of Ukraine on the Results of 2015-2020.

There were 160 cases which had a corruption component among 3,500 established facts of crimes committed by these groups in 2020. Thus, we can conclude that in Ukraine corruption exists inseparably with organized crime, which makes corruption profitable and unpunished. However, transformations of the legal field of Ukraine in the study area are currently underway, and the range of coordination measures is expanding. It should be noted in this regard that, the Cabinet of Ministers of Ukraine approved the Strategy for Combating Organized Crime on September 16, 2020 (Order of the Cabinet of Ministers of Ukraine No. 1126-p, 2020b), which will operate

in accordance with international requirements with the introduction of international standards — Serious and Organized Crime Threat Assessment (SOCTA). The need to implement the Strategy is confirmed by the above statistics on the results of the fight against organized crime by the police in Ukraine (Cabinet of Ministers of Ukraine, 2020a). At the same time, the guiding principles of this document include focusing on the detection, liquidation of criminal networks, tracking of cash flows and return of assets obtained from corruption crimes. This Strategy will be implemented in three stages, which are shown in Table 1.

**Table 1.**  
*Stages of implementation of the Strategy for Combating Organized Crime (Ukraine)*

Stage 1	Stage 2	Stage 3
-Serious and Organized Crime Threat Assessment (SOCTA Ukraine) -Drawing analytical conclusions and transformation of strategic goals of fight against organized crime, identification of the directions of process coordination -Development of comprehensive plans based on approved strategic goals	-Defining a limited number of strategic goals in accordance with the SOCTA Ukraine assessment and developing comprehensive action plans -The identified priorities are approved by the interdepartmental commission - the National Coordinator -The coordinating body develops comprehensive action plans	-Implementation of comprehensive action plans -Each plan is implemented by a body that fights against organized crime with the involvement, if necessary, of the representatives of civil society. The National Coordinator shall be informed of the progress of implementation, completion, or grounds for the failure to implement the action plans

\* Prepared by the author based on the analysis of the Strategy for Combating Organized Crime

Besides, the Cabinet of Ministers of Ukraine agreed on the National Anti-Corruption Strategy for 2020-2024, which will be a special document for Ukraine to coordinate all branches of government in order to effectively combat and prevent corruption (Analytical portal, 2020). At the same time, levelling the progress, the Constitutional Court of Ukraine made an ambiguous decision in October 2020 on the constitutionality of the electronic declaration system, unmaking most of the anti-corruption infrastructure of Ukraine. This decision of the court is completely legitimate and must be enforced. However, this decision not only complicated, but at some point made it impossible to fight corruption and jeopardized the visa-free regime and further cooperation between Ukraine and the EU (Decision No. 13-r/2020, 2020). The court decision also halted mechanisms for exposing conflicts of interest among officials, detecting corruption in state-owned enterprises and the work of whistle-blowers, thus affecting the coordination of the fight against organized crime resulting from corruption.

Despite the above negative event in the legal field, public authorities are actively continuing coordination measures to combat organized crime, adopting and implementing the relevant coordination documents. The Security Service of Ukraine (2020) adopted the Anti-Corruption Programme of the Security Service of Ukraine for 2021-2024. The assessment of corruption risks in the activities of the Security Service of Ukraine is quite positive in this document, as overcoming corruption risks will increase the level of prevention in the field of organized crime and bring the leaders of this hierarchical group to justice.

Besides, the Draft Law on the Principles of State Anti-Corruption Policy for 2020-2024 No. 4135 dated September 21, 2020 should be considered a positive initiative, which was submitted to the Verkhovna Rada of Ukraine, adopted as a basis and being prepared for second reading (Law No. 4135, 2020a). The text of the Draft Law, updated for the second reading, proposes the Anti-Corruption Strategy for 2021-2025 for approval, which, in turn, gives the National Agency for Prevention of Corruption the authority to coordinate the implementation of the Anti-Corruption Strategy and the state anti-corruption programme. The adoption of this legal act will be a positive step towards the introduction of mechanisms to fight against corruption and coordination measures to combat organized crime.

Based on the above, we can conclude that the leaders of Ukraine understand the seriousness of corruption and organized crime — “threats of the 21<sup>st</sup> century”. Internal destructive factors associated with the progressive level of crime and corruption are very powerful in modern conditions in this state. According to Shvets (2019), such factors cause significant damage to the potential of Ukrainian statehood on the path to self-preservation and progressive development of the state. Ukrainian lawmakers are taking decisive steps in the legislative reform based on international experience, and aimed at strengthening control over the activities of civil servants at all levels of government.

Corruption in public authorities remains particularly dangerous. Tuli (2015) supports the author’s position that the law enforcement agencies of Ukraine are affected by corruption, do not have sufficient opportunities and independence to fight institutional corruption.

The legal framework for law enforcement in the field of combating organized crime and corruption is an important and correct step to build a rule of law in Ukraine, where the legislation meets all European standards. At the same time, the purposeful fight against corruption and organized crime cannot be carried out through one-time and short-term actions of any degree of activity and severity at any level, but requires long-term socio-economic, political and legal transformations.

The comparative analysis of the legal acts and positive foreign practice allowed singling out the main tasks of Ukraine regarding coordination of the fight against organized crime resulting from corruption. The first task is to form a specialized data bank and provide initiative information to the relevant competent authorities (depending on the statutory competence). A scientifically sound strategy was developed by Holmes (2020) in his work on corruption among police officers regarding the development of the data bank. At the same time, the repression proposed by Ukrainian scholars through criminalization (Habuda & Repetskyi, 2020) is insufficient to effectively curb organized crime and corruption. Therefore, they are not supported by the author because of the need to supplement them with preventive and coordinating means. Besides, a study published by Transparency International (2017) and the World Wide Web Foundation in 2017, covering five G20 countries, shows that open data policies and coordination measures to combat organized crime and corruption are developed independently of each other — in a fragmentary connection with criminalization (Verbenskyi, 2010).

The second task of the state should include the introduction of preventive measures to reduce the manifestations of organized crime in the context of the level of corruption in Ukraine. The opinion of Hvozdet'skyi (2019) is very right in this regard; he offers the most obvious mechanisms: the introduction of measures to ensure the freedom of business, which in themselves reduce the dependence of businessmen on officials. According to the lawyer, the formation of anti-corruption strategies of the business itself is no less important task. At the same time, modern realities dictate a situation where a large number of big businessmen begin to realize the fact that solving any issues with European business is simply impossible without following the civilized rules of the market economy. According to Kelshaw (2020), reducing the preconditions for corruption and organized crime, increasing the social cost of the civil service (prestige, social

security) and increasing the risk of corruption are the fundamental components of anti-corruption policy. Those areas of combating organized crime and corruption have been decisive in a number of foreign countries (Singapore, Poland), which, according to the international community, have achieved significant success in this area. In particular, Gonzalez et al. (2019) proposed a list of universal measures to prevent organized crime for many jurisdictions and 34 social conditions.

The third task is to coordinate the search for members of criminal groups, persons who have committed the most dangerous crimes and are hiding from criminal prosecution by strengthening cooperation between different authorities. Darakhan et al. (2021) stressed the need to develop and adopt interdepartmental documents on cooperation in the fight against corruption and organized crime.

The fourth task of Ukraine is to enshrine in the legislation clearly structured and meaningful recommendations for combating organized crime resulting from corruption, taking into account the positive national and foreign practices of coordination and law enforcement. Scholars support the author's position that the state should play a crucial role in combating transnational organized crime. It is state institutions that are able to identify and implement the anti-criminogenic potential of society, organize a system of general and special countermeasures in cooperation with it, which should be built taking into account socio-economic, historical and cultural conditions of a particular society, patterns of this development (Dorokhina & Moroz, 2019).

Scholars also argue that the ineffectiveness of legal policies in the fight against organized crime is due, among other things, to weak state control over the fight against corruption (Jackson, 2020). In this regard, a comprehensive approach to the fight against organized crime requires further development with a view to the necessary improvement of cooperation between all law enforcement and regulatory agencies. According to Jancsics (2019), this approach should ensure effective coordination of the competencies of government institutions and their enforcement.

The priority areas proposed in the article for coordinating the state's fight against organized crime resulting from corruption have already received their support at the General Assembly's meeting (United Nations, 2021). Elanas Jablonskas, Deputy Minister of Justice of Lithuania, stressed that in extreme cases

corruption can completely destroy trust in the state. Special measures should be taken to prevent, detect, prosecute and sanction these crimes, applying a preventive policy when a real need arises. In turn, Oleksandr Novikov, Head of the National Agency for the Prevention of Corruption of Ukraine, stressed the need for total digitalization of the public sector as part of the architecture of the fight against corruption, which will help avoid the development of corruption relations. At the same time, the head of the Anti-Corruption Bureau of Argentina, Feliz Cru, pointed out that corruption weakens both public and private institutions and contributes to organized crime, drawing attention to the need to strengthen accountability for corruption-related offenses (United Nations, 2021).

### Conclusions

The study revealed that the states that have chosen the Scandinavian model of combating corruption and organized crime, including Ukraine, identify one of the driving factors in the development of organized crime — permanent corruption ties. Such ties help to build a criminal hierarchy of groups through the prism of the powers of the competent authorities, so overcoming them remains the main responsibility of the competent public authorities.

The analysis of legal regulation has shown that the adaptation of coordination measures in the legal field of Ukraine should be balanced and take into account the peculiarities of national manifestations of organized crime and corruption components of this state. Statistics on overcoming organized crime on the territory of Ukraine are constantly growing, which confirms the increase in the number of such groups. New ways of committing crimes, their innovative component and the sophistication of corrupt ties require the renewal of legal regulation and a new sustainable system for combating these phenomena. The practice of reforming the current legislation of Ukraine shows the branched institutionality and variable powers of public authorities, which currently remain uncoordinated by the legislator. Scholars have supported the need for the state to exert a decisive influence on such coordination.

Further research on the subject of the article will be carried out taking into account the latest legislative innovations and the state of implementation of Ukraine's obligations in the fight against organized crime and corruption in government institutions. It is also planned to

analyse the state of adaptation of the EU provisions to the legal field of Ukraine in the study area.

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## Determining impact of digitalization on the potential-forming space of regions in the context of sustainable development

### Детермінуючий вплив цифровізації на потенціалоформуючий простір регіонів у контексті сталого розвитку

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#### Abstract

The economic essence of digitalization of economic systems is investigated in the article. The challenges of digitalization of the economy of the regions include: the need for consistency of the dynamics of digitalization with economic and legal principles and institutional transformations; digital infrastructure development; intellectualization and digital literacy of the population; access to information and communication innovations. Guidelines for digitalization of the economy of the regions allow to ensure the following results: acceleration of economic business processes and innovative development; increasing the openness and accessibility of knowledge, information, communications; reduction of time and cost in production processes, sales and product promotion; formation of information databases for managing large data sets and accelerating the exchange of information; transformation of economic relations and adaptability to the demands of society. The implementation of the described goals and projects of digitalization of

#### Анотація

У статті досліджено економічну сутність цифровізації економічних систем. До викликів цифровізації економіки регіонів віднесено: потреби узгодженості динамічності цифровізації з економічно-правовими засадами та інституційними трансформаціями; розвиток цифрової інфраструктури; інтелектуалізації та цифрові грамотність населення; доступ до інформаційних та комунікаційних інновацій. Орієнтири цифровізації економіки регіонів дозволяють забезпечити наступні результати: прискорення економічних бізнес-процесів та інноваційного розвитку; нарощування відкритості та доступності знань, інформації, комунікацій; скорочення часу та вартості у виробничих процесах, реалізації та просуванні продукції; формування інформаційних баз для управління великими масивами даних і прискорення обміну інформацією; трансформація економічних відносин та адаптивність до запитів суспільства. Реалізація описаних цілей та

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the regions requires the activation of economic potential, as well as the transformation of the institutional environment of the region. Economic factors and tendencies of digital activity of the population of the region are described. Promising areas have been identified to further stimulate the implementation of programs and projects to digitize regions and increase their investment attractiveness to attract financial support.

**Keywords:** digitalization of the region, digitalization potential, sustainable development, land relations, digitalization programs, digital infrastructure.

### Introducción

Economic transformation, innovative progress in highly competitive markets and in conditions of heterogeneous distribution of resources and technologies in the regions require sustainable development incentives. The current dynamics of digitalization of the regional economy creates a strong potential for sustainable and coordinated global and national development.

Despite the activity of scientific research in economic research on the impact of digitalization on the development of its subjects, a significant number of problems for the further development of the digital economy on a regional scale remain insufficiently studied.

The aim of the study. The aim of the study is to establish the role of digitalization of regional institutions and enhance their economic potential to ensure sustainable development goals.

### Literature Review

In the current conditions of rapid development of digitalization processes, research on the role and impact of these processes on the development of the region is becoming extremely important. Among the scientists who dedicate their research to this area of research should be noted: Arefieva O. et al., (2021), da Rocha Teixeira F. et al., (2022); Derhaliuk M. et al., (2021); Ermakova A. (2021); Giraev V. et al., (2021); Ivanova N. et al., (2021); Kholiavko N. et al., (2021); Kovaleva I. et al., (2021); Kozlov A. et al., (2021); Kozonogova E. & Dubrovskaya J. (2022); Popelo O. et al., (2022); Pyankova S. et al., (2021); Roos G. et al., (2021); Samoilych A. et al., (2021); Shabanova M. et al., (2021); Tashtamirov M. et al., (2021); Tulchynska S. et al., (2021); Vlasov M. & Yan, K (2021) and others.

проектів цифровізації регіонів потребує активізації економічного потенціалу, а також трансформації інституційного середовища регіону. Описано економічні фактори та тенденції цифрової активності населення регіону. Визначено перспективні території для подальшого стимулювання імплементації програм і проєктів з цифровізації регіонів та підвищення їх інвестиційної привабливості для залучення фінансової підтримки.

**Ключові слова:** цифровізація регіону, потенціал цифровізації, сталий розвиток, земельні відносини, програми цифровізації, цифрова інфраструктура.

In the article (Kozonogova & Dubrovskaya, 2022), scientists study the convergence of regions in terms of digital development, taking into account the spatial location. Scientists have established regional unconditional  $\beta$ -convergence and positive global spatial autocorrelation according to the level of development of digital infrastructure of regions.

Scholars (Tashtamirov et al., 2021) argue that digital transformations of regional socio-economic systems have a significant impact on economic growth and financial stability of individual territorial entities. The authors investigated that global trends of "digitalization" of economic and financial relations affect the peculiarities of regional development. The article examines the features and problems in the processes of digitalization of the regional banking system and the market of banking services in terms of digitalization and affordability of depressed regions of the country.

In the articles of scientists (Kholiavko et al., 2022; Popelo, 2022) the main attention is paid to the peculiarities of the functioning of higher education in the conditions of rapid development of digitalization processes. Researchers have identified that enhancing the positive impact of higher education on the development of the digital economy is facilitated by: improving dual education, implementing lifelong learning programs, forming an information and innovation culture in society; generation of innovative ideas and their commercialization, support of youth innovative projects; improving English language proficiency.

The aim of the article (Popelo et al., 2022) is to develop a methodological approach to the qualimetric assessment of innovation activities of

regional economic systems, taking into account the processes of digitalization. As a result of the research, the authors present a cartographic analysis of the regions of Ukraine.

The authors (da Rocha Teixeira et al., 2022) prove that digital transformation increases the competitiveness of companies, improves the economic positioning of organizations and is responsible for the globalization of business. The study is based on an analysis of the impact of higher education institutions on the digital development of the Portugal's regions. The study revealed a positive impact of universities on the digital development of regions.

The article (Derhaliuk et al., 2021) substantiates the direction of providing institutional prerequisites for the transformation of the potential-creating space in the conditions of intensification of regional development. Scientists have analyzed the existing shortcomings of the state policy of transformation of the potential-creating space in the context of intensifying regional development.

According to the study (Kozlov et al., 2021), the impact of the level of digital infrastructure development on the formation of Industry 4.0 in the Arctic regions was analyzed. The authors of the article assessed the level of regional digital infrastructure by analyzing individual indicators and calculating the integrated indicator. The results of the study revealed a slight positive trend in the development of integrated digital infrastructure.

According to the research (Samoilovych et al., 2021), the article identifies key differences, substantiates the need for systematic action at both regional and national levels for the effective implementation of digitalization. The authors analyze the components of digital transformation of the regions of Ukraine, among which the emphasis is on creating an effective digital infrastructure; introduction of "Industry 4.0" technologies in the industry; e-government and training of the workforce in accordance with the requirements of the digital economy.

The author of the paper (Ermakova, 2021) analyzes the role and importance of digitalization in the modern world. As a result of the study, the scientist proves that the transition to digital subsoil use will open new opportunities for regional development of the fuel and energy complex. According to the author, this will avoid some existing environmental problems and bring the region's economy to a more favorable level.

Studying the results of scientific research (Pyankova et al., 2021), the features of the impact of digital development on the competitiveness of countries and regions are analyzed. The authors use a structured methodology adapted to solve the problem of nonlinear optimization by choosing the optimal scenario of public management of digital development of regions. Researchers consider the study important and useful, as it highlights the components of the digital economy that affect both the digital and the competitiveness of regions as a whole.

The authors of the article (Tulchynska et al., 2021) claim that in the process of activating the modernization potential, resources are transformed into the results of the implementation of innovation and investment strategies of modernization both at the micro level and at the regional level. Scientists argue that the key vectors of activation determine the nature and properties of investment resources and the necessary innovations to enhance the modernization potential.

The authors (Kovaleva et al., 2021) argue that elements of the digital economy are being actively implemented in various sectors of the economy. Scientists point to the need to use innovative technologies, including the digitalization of the industry in the field of agriculture. The study claims that industry digitalization will increase the level of competitiveness of the region.

The basis of the study (Vlasov & Yan, 2021) is the assessment of digital technologies for human capital, identifying correlations between the factors of digital economic and human capital in different regions. Scientists have proven the significant impact of digital economic development on the development of human capital. In the article, the authors identified the impact of digital economy factors on human capital development in the regions.

The article (Arefieva et al., 2021) defines that the system of economic security of regions, which acts as a system, has its subsystems, which include: production, financial, environmental, innovation, investment and social subsystems. The authors identified possible threats due to the transformation of power. The authors performed a PEST analysis of the impact of various factors on economic security and development of regional economic systems in modern conditions.

The authors (Roos et al., 2021) analyze the possibilities of sustainable economic development of coastal areas in the Baltic Sea region in the context of digital transformation. Scientists argue that the use of digital technologies in the process of commercialization of territorial resources will have a positive impact on sustainable economic development of regions. As a result of the study, the authors note that increasing the competitiveness of coastal areas requires investment in digital solutions in the blue economy and the development of communication infrastructure.

The aim of the article (Ivanova et al., 2021) is to study the problems of e-commerce development, which are becoming increasingly important in the context of mass quarantine restrictions. The authors substantiate the importance of digitalization as a driver of economic development and investigate the main business models of e-commerce and their modifications.

Scientists of the article (Girayev et al., 2021) have developed a method of indicative assessment of the effectiveness of public administration of the region in the digital economy. The authors note that indicators of the effectiveness of regional development management in the digital economy are the use of digital economy to maximize revenues and minimize expenditures of the regional state budget. The article proves the expediency of stimulating digital modernization of the economy of the regions in order to increase the efficiency of public administration.

The purpose of the article (Shabanova et al., 2021) is to study the new challenges of public and corporate governance in the context of digital development of the modern region, identify scenarios and the optimal model for managing this development. The authors prove that the digital development of the regional economy is based on measures of state financial support for digital modernization of the economic system of the region. As a result of the study, the authors proposed a model of state and corporate governance of digital development in the region, which, according to scientists, will help optimize and ensure greater management efficiency.

### Methodology

The methodological basis of the study is the fundamental provisions of the theory of development of productive forces and regional economy, as well as the theory of post-industrial development of society, including digitalization. This made it possible to apply general scientific

techniques and specific methods of scientific research in relation to the justification of the role of digitalization in the development of regions and the use of their potential in terms of sustainable development.

The study used a set of methods of scientific knowledge to ensure the disclosure of the topic and achieve the goal, including: logical method - to identify the genesis of digitalization as a progress of social development, which allows to more effectively achieve sustainable development goals using the potential of regions; analysis, synthesis and generalizations - to highlight the challenges of digitalization and its benchmarks, the results for the development of regions as a result of the introduction of digitalization, justification of the role of digitalization in ensuring sustainable development of regions; formalizations and generalizations - to determine the impact of digitalization on sustainable development of regions, highlighting the legal principles of digitalization of the economy and their implementation in order to ensure sustainable development of regions; graphic and cartographic - to visualize the results of the study.

### Results and Discussion

The processes of digitalization of the economy in the regional manifestation are aimed at the formation of new competitive opportunities created by information and communication innovations. In economics, the concept of digital economy was first substantiated at the end of the last century, with emphasis on research in the field of digitalization on the use of information and channels of its dissemination to describe the transformation of the economy.

This is due to the fact that the theory of the digital economy is seen as digitalization, and most importantly as a potential factor in ensuring the competitiveness and efficiency of innovation. The digital economy can be considered as a kind of traditional economy, but from the standpoint of constant and mass implementation of information and communication technologies digitalization of the economy is aimed at implementing the principles of openness and global markets and information. This stimulates the search for innovative tools for the formation of new competitive advantages, is a factor in stimulating productivity and competencies of individual workers, as well as territorial economic heterogeneity.

It is necessary to emphasize the role of intellectual capital and the impact of expanding digitalization in education, aimed at improving the quality of education and communications. In turn, the newly created digital capital as a result of digital technologies and logistics information infrastructure can accelerate economic business processes, promote the availability and openness of information about markets and resources, which increases the competitiveness of individual regions.

The digital economy is innovation-oriented and directs the introduction of digital technologies to the socio-economic development not only of the national economy, but also of individual industries, territories or markets. According to scientists, the digital economy can accelerate the allocation of resources and the creation of goods or services, which ultimately reduces economic costs and increases profitability.

The same results of the introduction of digital technologies in the economy of the digital economy allows:

- firstly, to change business processes and mechanisms of profit generation;
- secondly, reduces the role of mediation in economic processes of resource supply and sales;
- thirdly, ensure customer focus and rapid adaptation to changes in market demand;
- fourthly, allow to increase the quality of products by individualizing its characteristics.

However, in our opinion, the globalization and universality of information and communication technologies require not only the acceleration of innovation and technological renewal, but also the transformation of all relevant areas. Because the availability of new technologies requires their compliance with economic and legal principles

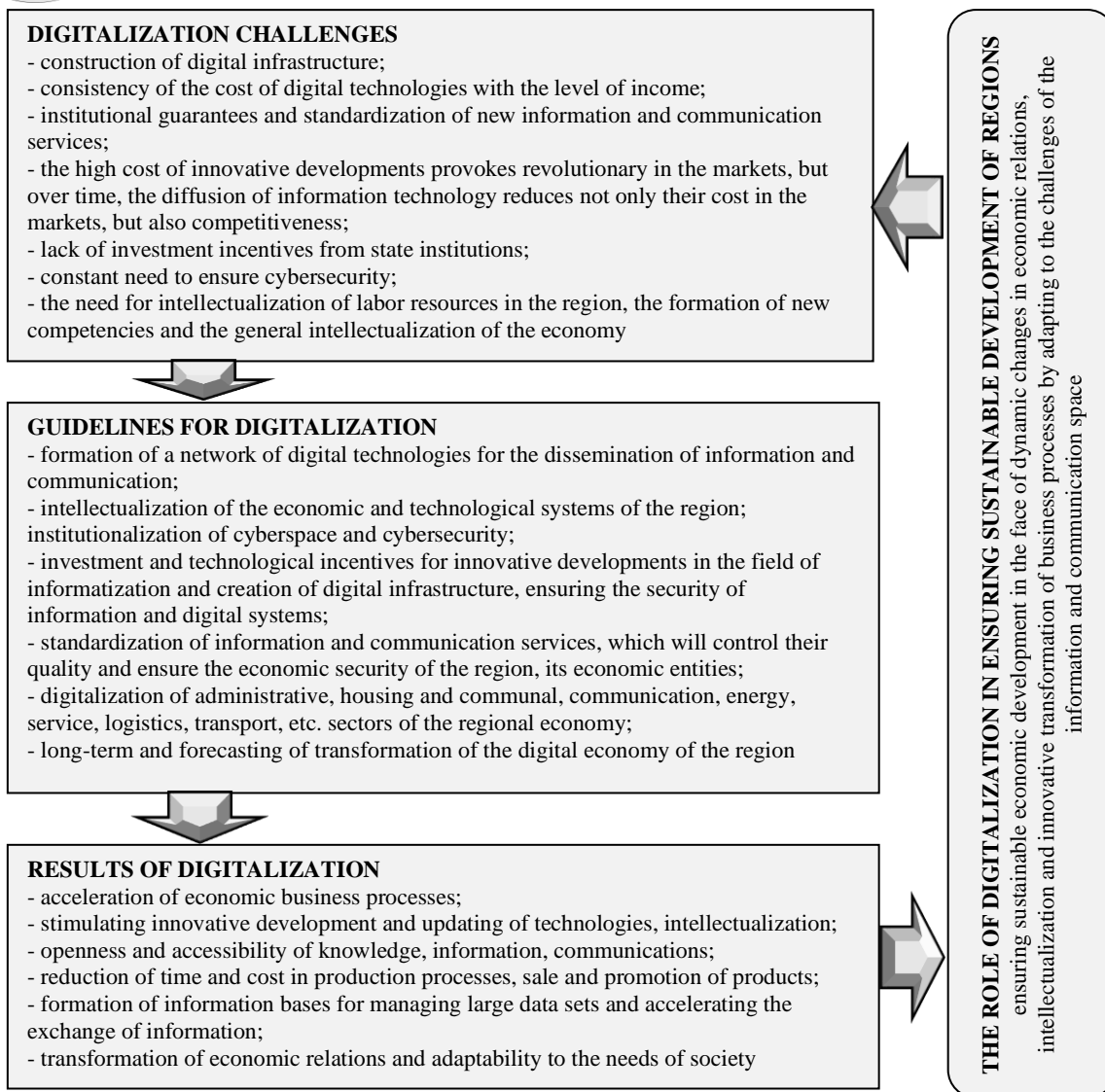
and norms. In addition, the uneven distribution of information due to the inconsistency of digital infrastructure to the needs of the regional economy provokes disparities in competitiveness and adaptability to the challenges and pace of digitalization. Therefore, noting the stimulating role of digitalization of the economy, we must note the negative manifestations:

firstly, the heterogeneity of digital infrastructure provokes the dominance of individual regions in the national or global economy, their monopoly in certain markets;

secondly, the availability of information and communication tools for the population is dictated by the general level of well-being in certain areas, age and socio-cultural characteristics, which affects the disparities in innovation development;

thirdly, the dynamics of digital services development exceeds the pace of institutional adaptation of the regional system and provokes economic threats to cybersecurity of information; fourthly, for the uniform spread of digital technologies and, accordingly, the homogeneity of the economic system of the region, it is necessary to ensure the formation of digital literacy, intellectualization of labor resources.

These challenges require consistent solutions and adaptability of the regional economy to the pace of digitalization. The effectiveness of the digital economy in the regional dimension depends on the pace of implementation of information and communication innovations, as well as institutional support and stimulation of these processes. Therefore, we propose to consider the processes of digitalization of the regional economy as the interaction of challenges, benchmarks and expected results. Collectively, this will determine the functional role of digitalization in the economic development of regions and the accumulation of their potential to ensure further sustainable development (Fig. 1).



**Figure 1.** The impact of digitalization on the sustainable development of the regions' economy.  
Source: suggested by the authors

Summarizing the impact of digitalization and its role in the development of regional economies, it is necessary to note the following characteristics that are formed by the need for further structural changes:

- firstly, digital technologies, as an element of the regional economy, are characterized by a network structure that allows for synergistic and rapid results;
- secondly, digitalization is primarily aimed at information and communication processes, availability of knowledge and information, and therefore its effectiveness directly depends on the speed of diffusion of innovative technologies, their openness and dissemination;
- thirdly, the relevance of digital infrastructure and tools for working with information requires constant capital investment in

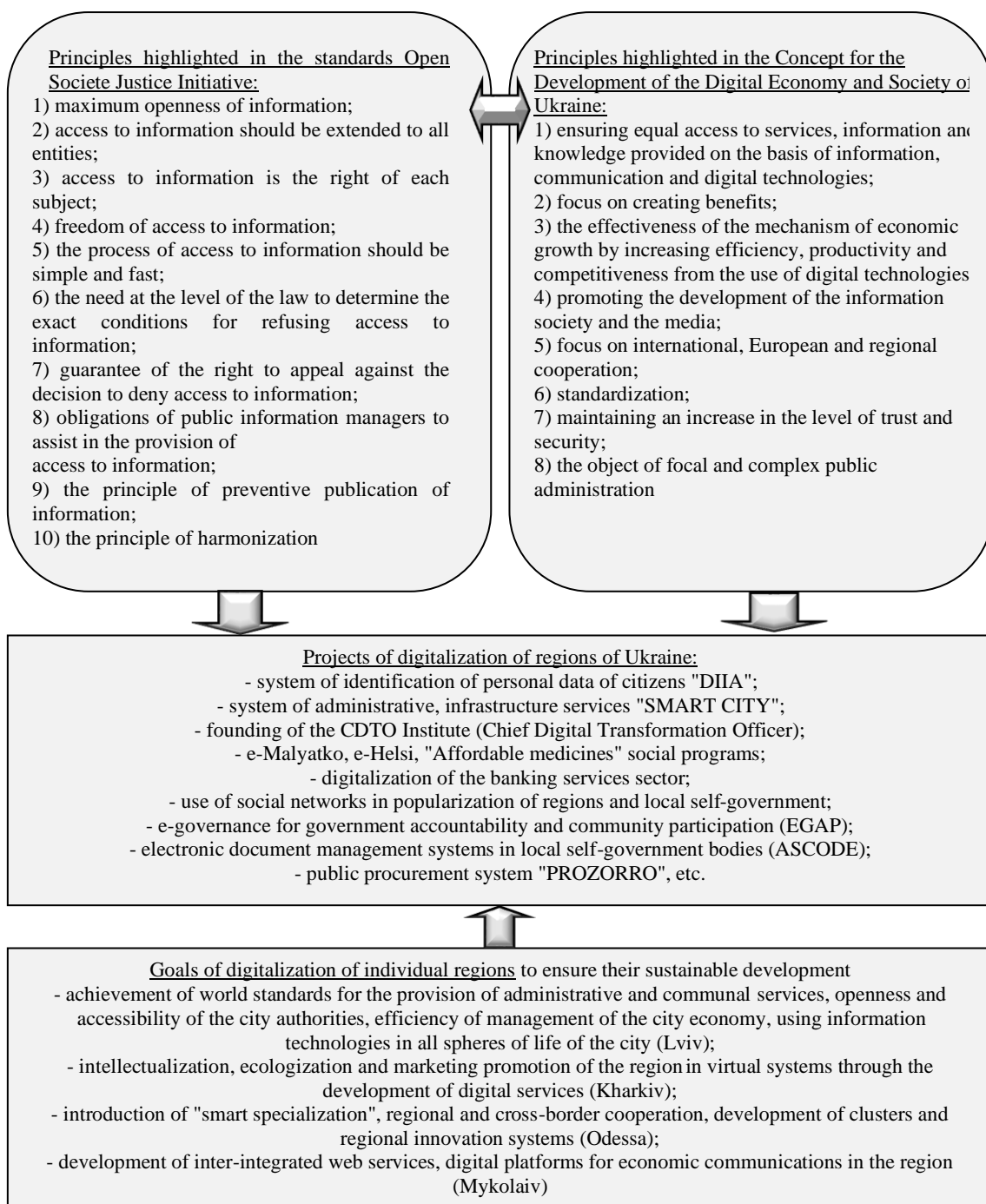
modernization, which provokes demands for building the potential of digital development of the regional economy;

- fourthly, the potential of digital development of the region is dynamic and stochastic, depends on the cost of investment in virtualization of capital, distribution and capitalization of intellectual, innovative, industrial, financial, etc. capital;
- fifthly, the development of digital technologies affects the even distribution of resources and income, the likelihood and characteristics of economic risks, as they are the result of innovative progress, as well as difficult to predict and depend on public and business perceptions of the region;
- sixthly, the development of digital technologies and their spread in the regional economy provokes an overall increase in

digital literacy, as well as the digitalization of services and distribution channels.

Stimulation and motivation of digitalization of regions in the described conditions and taking into account the specified characteristics of the process by international and national institutions is carried out in accordance with the already

adopted regulations. At the same time, the established scientific principles of digitalization of the economy of regions or individual territories allow to reveal the prospects of ensuring adaptability to the emergence of innovative technologies and sustainable development of the entire economic system (Fig. 2).



**Figure 2.** Regulatory principles of digitalization of the economy and their implementation in order to ensure sustainable development of regions.

Source: formed on the basis of:

Open Societe Justice Initiative. Article19: Website. 2019. <https://www.article19.org>.

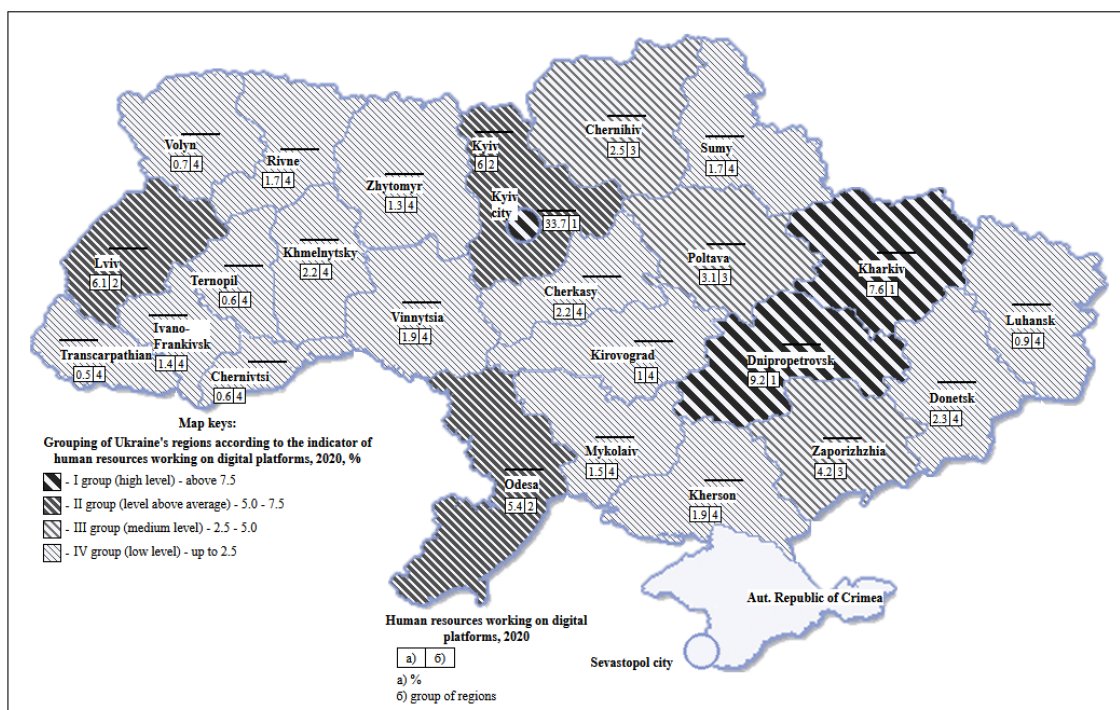
Official portal of the Verkhovna Rada of Ukraine. <https://rada.gov.ua/>.

Ministry and Committee for Digital Transformation of Ukraine. <https://thedigital.gov.ua/ministry>.

Key regulations governing digital technology management, information exchange, and the development of artificial intelligence include the UN Resolution on the Promotion, Protection and Exercise of Human Rights on the Internet, the norms of the World Open Society Justice Initiative, the National Concept for the Digital Economy and Society of Ukraine 2018-2020, as well as regional digitization programs in some regions of Ukraine.

The implementation of the described goals and projects of digitalization of the regions requires

the activation of economic potential. The need for intellectualization and digital literacy of the population is especially relevant, in particular, the regional distribution of human resources needs more detailed research, which reflects not only the level of digital infrastructure development, but also economic guidelines for innovation in digitalization of regions. The dominance of individual regions in the territorial distribution of economic activity of the population on electronic platforms is presented in Fig. 3.



**Figure 3.** Regional distribution of human resources working on digital platforms, %  
 Source: formed on the basis of Ministry and Committee for Digital Transformation of Ukraine.  
<https://thedigital.gov.ua/ministry>

It should be noted that in the Central and Southern regions of Ukraine there is a higher level of activity of IT workers (20 and 22% respectively). Also, interesting for strategic planning of priorities of digitalization of regional economies is the factor of dominance of IT in the structure of employment and concentration of its employees in cities with a population of more than 100 thousand people: Kyiv, Lviv, Kharkiv, Odessa account for 52% of freelancers digital platforms.

Thus, the realization of the potential of digital transformation of regions is aimed at ensuring sustainable development in the context of activating the population and meeting its needs for access to services, communication between people and regional authorities. Thus, 94 projects

of digital transformation of the administrative sector in local self-government bodies are currently being implemented in Ukraine.

These national projects (see Fig. 2) in the regional economy are developing through targeted financial support, as well as the implementation of national programs for digital infrastructure development. However, the effectiveness of digitalization of regions primarily depends on the motivation of the population and the political will of local authorities.

**Conclusions**

The study reveals the directions and conditions of digitalization of economic systems of regions

in the context of the implementation of international principles and programs. The described landmarks and challenges allow to formulate landmarks for sustainable development of regions. Ensuring the sustainable development of the regional economy in the context of dynamic changes in economic relations, intellectualization and innovative transformation of business processes should be carried out by adapting to the challenges of the information and communication space. The principles of digitalization defined by normative legal acts are implemented for regional purposes, as well as currently represented by regional programs. National programs, as well as the implementation of projects for the development of digital infrastructure have an important impact on the digitalization of regions.

Further research should focus on analyzing the effectiveness of the economic potential of digitalization of regions and its impact on sustainable development in the future.

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## Competences development within L2 PR undergraduates education in the Digital Age

### Формирование компетенций в обучении английскому языку специальности студентов отделения по «связям с общественностью» в цифровую эпоху

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#### Abstract

The paper deals with the competences development within L2 learning and teaching undergraduates majoring in public relations (PR) in the Digital Age. The purpose of the current investigation is to demonstrate the transition from hard skills to soft skills education, applied within the frames of learner-oriented approach. Individual educational trajectories (IET) are being promoted to be implemented at universities worldwide. Teachers' role has been changed significantly, since the education of the Industrial Epoch with its teaching aims and methods as well as practices does not correspond to the needs of the Digital Age education. The lecturer's recital of the information contained in textbooks is no longer relevant. Instead of the master of the class, educators have become undergraduates' assistants. PR undergraduates' L2 learning-teaching process is concentrated on the usage of digital technologies for autonomous work, as well as for creating self-standing projects in the form of mind mapping, audio, video podcasts and others. The aim of the investigation is to demonstrate the necessity and relevant practice to develop within PR undergraduates not only six competences (6Cs) acknowledged by CEFR, but eight competences (8Cs) to secure successful L2 language acquisition in the globalizing world of the Digital Age. In conclusion, it has been shown that competency-based education is the most relevant at present.

#### Аннотация

В статье рассматривается процесс формирования новых компетенций и лингводидактические методы обучения иностранному языку студентов направления "Связи с общественностью" (PR) в цифровую эпоху. Цель данного исследования состоит в рассмотрении перехода от жестких навыков (hard skills), фундаментальных знаний к обучению мягким навыкам (soft skills), которые доминируют в рамках современного подхода, ориентированного на удовлетворение потребностей общества. Индивидуальные образовательные траектории (ИОТ) в настоящее время внедряются в учебный процесс университетов мира. Роль преподавателей значительно изменилась в виду того, что образование индустриальной эпохи с его целями, методами и практиками более не отвечает потребностям образования цифровой эпохи. Информация, содержащаяся в учебниках и изложенная в лекции в аудитории, больше не является единственным источником знаний, а преподаватель вуза стал помощником, или ассистентом студентов на пути формирования профессиональных компетенций. Учебный процесс студентов отделения PR при обучении иностранному языку направлен на использование цифровых технологий для самостоятельной работы, а также на создание индивидуальных и командных проектов в цифровой среде при использовании технологий ментальных карт, аудио и видео приложений. В задачи статьи входит демонстрация необходимости внедрения в соответствующий учебный процесс студентов PR не только шести компетенций (6Cs), признанных Еврокомиссией (CEFR), но и восьми компетенций (8Cs) для

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**Keywords:** competences, PR undergraduates, L2, Digital Age.

## Introducción

In the VUCA world of volatility, uncertainty, complexity and ambiguity undergraduates should acquire the competencies preparing them for the professional life in the new emerging circumstances. 'New normal' (Schwab, & Malleret, 2020: 8) in which humanity is destined to live after the outbreak of the Covid-19 pandemic, has established a new mode of life, work and studies, including all the spheres of professional activities and education in particular. The imposed lockdown and physical isolation have challenged the learners and educators to look for new ways of spreading and getting information and knowledge necessary to continue the education process.

Having faced the challenges of lockdown, the people realized that all the education process can be carried out by means of digital technologies that have their advantages and disadvantages. Competence-based approach gained momentum in education, when it became clear that every profession needs lifelong learning to support the sustainable development and sustainable education (Sergienko et al., 2021) of humanity. Linguodidactics combining professional knowledge alongside linguistic command, is aimed at implementation of this idea into life.

The present day competency-based approach transformed the vision of competence-based approach, theoretically suggested in the 1960s (Chomsky, 1969), and placed special emphasis on private initiative and self-education, as contemporary society needs well-educated, highly moral, industrious, critically thinking and socially responsible professionals ready to make important decisions and prognosticate their possible consequences. They are noted for social and technical mobility, dynamism, critical vision, constructability and the feeling of the elevated responsibility. Within this approach, competence is understood as the ability of a person to cope with a variety of tasks at the professional workplace.

обеспечения успешного овладения английским языком специальности в глобализирующемся мире цифровой эпохи. В заключение авторы приходят к выводу, что образование, основанное на формировании компетенций, является наиболее актуальным в настоящее время.

**Ключевые слова:** компетенции, студенты по связям с общественностью», английский язык, цифровизация.

The system of education has been drastically changing in the world since the middle of the 20<sup>th</sup> century, when a new paradigm forced a transition from knowledge-oriented to competence-based approach, which marked the transition from information society to the Digital Age. These ideas remained latent until the dawn of the new millennium. Otherwise stated, a new epoch was started in education, when J. Delors commences an initiative to introduce competence-based approach to education (Delors, 1996) when UNESCO in 2004 suggested and acknowledged the development of four competences (Official Journal of the European Union, 2006), necessary for higher education: creativity, critical thinking, communication and collaboration, later to be extended to six competences (6Cs), complemented by citizenship and character in 2016 (Fullen et al., 2017).

This brings about the expansion of competencies dominating education to meet the requirements of the new educational paradigm. The constant increase of knowledge and the improvement of skills and abilities are fixed and turned into competencies. The educational environment should form an integral system of competencies necessary for the acquisition of universal knowledge, experience of independent activity and personal responsibility, which are necessary for solving problematic issues and justifying their decisions.

The modern education system should be able to offer creative tasks that contribute to the development of 6Cs (6 competencies) necessary for the future work of the undergraduates in the new conditions of the 21st century. The professionally oriented English classes for PR specialists should encourage the students to pay more attention to learning English matching their professional needs, because the sphere of PR is a newcomer to the family of academic disciplines with university education. It is due time to implement multidisciplinary achievements to the

development of L2 curriculum for professional PR education.

### Theoretical Framework or Literature Review

Linguodidactics started to develop alongside the new technologies, giving rise to digital textbooks and multimodal approach to education. As an academic discipline, linguodidactics combines two entities: linguistics and didactics. It means that all the theoretical achievements concerning the study of language proper is implemented into the process of teaching professionally-oriented language. Teaching L2 within professional undergraduate PR education can be considered a multidisciplinary process (Minyar-Beloroucheva, & Sergienko, 2021a), which includes linguistic knowledge and methods of L2 teaching. In other words, linguodidactics combines those essential achievements in the field of the professionally oriented language of the chosen discourse (Law et al., 2016; Weare, 2019; Vishnyakova et al., 2020), PR discourse in the view of this work, and development of certain competences.

Turning to the historical retrospective of the development of competence/competency based approach to education, we can state that it took almost 40 years for the idea to be implemented into life. It should be noted, that it was N. Chomsky in the 1960s, who was the pioneer to put forward the thought concerning competency based education. Scholars single out several development phases in the history of competencies.

The first phase lasted in the 1960s and 1970s when the main methodological and terminological apparatus was worked out. It was the time with the terms competence and competency were singled out. Competence-based education was shaping in the USA in the 1970s, founded on the theoretical works suggested by R.W. White and N. Chomsky. American psychologist W.R. White in his work "Motivation reconsidered: the concept of competence" (1959) introduced the concept of competence filled with psychological vision of personality including motivation (White, 1959). In 1965 Noam Chomsky, professor of Massachusetts university, by reinterpreting Saussure's language and speech theory distinguished the concepts of competence and competency. According to N. Chomsky, competence is understood as a mental system underlying actual behavior, ability to analyze a language, ignoring mistakes, understanding new sentences, while competency is defined as the

actual use of the language in real-life situations – that is the production of new sentences. Competence is a set of principles which a speaker masters, competency is what a speaker does. As competence is a kind of code, competency is an act of encoding or decoding (Chomsky, 1969). Competence concerns the structures which the undergraduates have succeeded in mastering, whether or not they utilize them in practice, without interference from the many of the factors that play a role in actual behavior. N. Chomsky describes 'competence' as an idealized capacity that is located as a psychological or mental property or function that involves "knowing" the language (Chomsky, 2010).

In the course of transformational grammar and theory of language education Dell Hymes studying different types of language competences introduces the concept of communicative competence (Hymes, 1972). The scholar takes competence as the 'most general term for the capabilities of a person' <...> 'Competence is dependent upon both (tacit) *knowledge* and (ability for) *use*. Knowledge is distinct, then, both from competence (as its part) and from systematic possibility (to which its relation is an empirical matter). Thus, it already in the 1960 that scholars started to distinguish competence as a systematic possibility from what persons can do, which is explained by personal and professional experience of a person.

The second phase of competencies development embraces two decades that lasted from 1970 up to 1990. It is noted for the implementation of competence-based education in the USA. It was founded on Noam Chomsky's works. In his book "Competence in modern society: Its Identification, Development and Release", published in 1984, John Raven gave his own early definition of the term 'competence' (Ravens, 1984). Years later the scholar referred to competence "as a value-based and internally heterogeneous quality – a fact which was implicitly, but not explicitly acknowledged <...>" (Raven, 2001, p. 253). John Raven in his works outlined how the competence-oriented education movement reformed education by replacing the qualities previously known as knowledge, skills, aptitudes, abilities, attitudes and personality (Raven, 2001, p. 259). It should be underlined that competency-based education arose an interest in competence/competency per se.

The third phase of competency-based education that started in 1990 and lasts till present is marked by its official recognition. The

competencies necessary for meeting the education needs of the populace were verbalized by Jacques Lucien Jean Delors, who chaired the UNESCO Bureau of Education (IBE) in 1996. In his *Fundamentals of the Report of the International Commission on Education for the 21st Century* entitled "Education: A Hidden Treasure", Jacques Delors communicated the basis of "four pillars" of education: learning how to know, learning how to do, and learning how to live together, learn how to live (Delors, 1996). Essentially, J. L. J. Delors singled out the key competencies to be acquired by the undergraduates.

In his Report of the Symposium in Berne Walo Hutmacher defined key competencies so that 'they can actually be taught in an education process (Hutmacher, 1997, p. 16). The formulation of competencies always expresses the expectations and aims of the education, which in turn depend on the interests, risks and opportunities of the protagonists (Hutmacher, 1997, p. 16). The author sees only a marginal difference between the following: skill, competence, competency, ability, mastery and craftsmanship.

The Council of Europe defined five sets of key competencies, that could have been applied for PR undergraduates' professional education, as viewed seen by the authors of the present work:

- Political and social competencies such as the capacity to accept responsibilities, to participate in group decisions, to resolve conflicts in a non-violent manner, and to play a part in running and improving democratic institutions.
- Competencies relating to life in a multicultural society. In order to check the resurgence of racism and xenophobia and the development of a climate of intolerance, education must "equip" young people with intercultural competencies such as accepting differences, respecting others and the capacity to live with people of other cultures, languages and religions.
- Competencies relating to the mastery of oral and written communication, which are essential for work and social life to the point that those who lack them are henceforward threatened with social exclusion. In this same register of communication, the mastery of more than one language is taking on growing importance.
- Competencies associated with the emergence of the information society. The mastery of these technologies, the

understanding of their applications, strengths and weaknesses, and the capacity for critical judgment with regard to information disseminated by the mass media and advertisers.

- The capacity to learn throughout life as the basis of lifelong learning in both occupational contexts and individual and social life. (Hutmacher, 1997, p. 16-17).

This was the way to the four competencies (4 Cs) reigning in education for more than two decades pressurizing with a very varied agenda schools, which were traditionally expected to promote the moral, intellectual, aesthetic, vocational and physical development (Hutmacher, 1997, p. 32) of the undergraduates.

### Methodology

The concepts of competence and competency reveal the methodological essence of competency-based learning at present. New competencies are not only aimed at obtaining theoretical knowledge, but also practical skills that use knowledge to solve specific tasks and apply the acquired knowledge in the professional activities of PR undergraduates. The development of new competencies is one of the trends of education reformation, which is typified by a competency-based approach. To be aware of the current methodology, it is important to note, that in education we understand professional competency as a number of different competences, necessary for high level professional performance. At present PR undergraduates face constantly arising challenges in the VUCA world of present society. The methods applied in the article embrace analysis, synthesis and classification to facilitate the research of the existing theoretical investigations and practical recommendations. The suggested set of recommendations given in the article helps the development of highly profiled future PR specialists in terms of professionally oriented language acquisition as well as the ability to fulfill the professional goal.

### Results and Discussion

It is generally established that the interest in competence/ competency theory usually arises during the periods of crisis in the economy, education and culture. This period marks the transition of all aspects of human life into the digital environment. It has become most relevant to trace the etymology of the generally accepted of the terminological units 'competence' and 'competency'.

It should be said that despite the fact that the word *competence* came into English in the 1590s, meaning ‘rivalry’ (based on *compete*), and ‘adequate supply’, both senses became obsolete, as in the 1630s it acquired the meaning ‘sufficiency of means for living at ease’, coming from French *compétence*, from Latin *competentia* denoting ‘meeting together, agreement, symmetry’, from *competens*, present participle of *competere*, especially in its earlier sense of ‘fall together, come together, be convenient or fitting’. From 1790 the noun *competence* started to denote ‘adequate range of capacity or ability, sufficiency to deal with what is at hand’ and is notionally connected with other words (OED, n/d).

Some scholars believe that competency-based education conceptually dates back to Ancient Greek philosopher Aristotle, who correlated it with the Greek word “*atere*”, in Latin “*virtu*”, which meant a force that was developed and improved to such an extent that it became a characteristic feature of the personality.

The concept of ‘competency’ is used to describe the achievement of the final result of education. Competence is an integrative personal resource that ensures successful activity due to the learned effective strategies. Competencies are specific strategies for successful activities that ensure the solution of tasks, overcoming obstacles and achieving goals. For PR undergraduates it means the development of those skills and competencies, necessary for the successful activities connected with shaping public opinion and controlling behaviour, like for example the axiological aspect of professional PR discipline (Minyar-Beloroucheva et al., 2021a) or the environmental issue (Minyar-Beloroucheva, & Sergienko, 2021b).

The key competencies of the present day competency-based education are the six competencies (6Cs): collaboration, character, citizenship, communication, creativity, critical thinking (Fullen et al, 2017), that can be applied to L2 teaching/learning with the PR education.

It is necessary to proceed to the practical application of the theoretical knowledge, regarding the application of the existing competencies to the professional L2 PR undergraduate education. It should be stressed that the process of PR education needs further theoretical methodology, ideology and intellectual heritage. The deeper understanding of competencies applied contribute to this process:

- Collaboration means working with other people as a team or partners to use small tasks to complete larger tasks of creating a positive image of the company. It also involves everyone in making the decision, adequately responding to societal needs and the goals, set by the business company. Gamification as an L2 teaching method can be used for the development of collaboration and instilling in PR undergraduates professional ethics and rules of behaviour. Joint work of students within the academic environment can also presuppose the assignment of certain roles to each member of the team. One of them can be responsible for studying the target audience, another one should write a press-release in English serving the lingua franca of the present day professional communication, both in the traditional and digital forms, another one can think of the visual and video support of the issue.
- The character competence implies the knowledge of the next steps to accomplish the tasks. An important skill is also the collection of the feedback from the audience to make improvements to the company’s performance. Character also includes the knowledge of the learning intention and success evaluation to improve the work and overcome challenges in it. For the professional PR activity most relevant is the issue of compassion. Empathy and understanding lead to trust and mutual success of the company and its audience, making the emotional intelligence an essential part of the character competence.
- The citizenship competence implies helping someone with work to promote awareness in the world. This competency is generally used to solve the problem connected to the real world. PR specialists are always at the forefront to manage societal demands. In the education environment this competency can be developed by means of video conferences, quizzes and real life professional situations. L2 acquisition is achieved effortlessly during the fulfillment of the tasks. It is also useful for future PR experts, as their products will be presented on the international level to the people from different countries, whose lingua franca is English.
- The communication competence means to speak to other people at work using specific vocabulary, which is not only important for effective communication with a group of experts but also the audience. Communication is also used to show their

learning to others to know who their audience is. This competency can be developed by means of role-play games used in class or by digital instruments when applied online. It is also convenient to seek assistance at the work place from highly specialized sphere, like graphic design, economy, law and management. PR undergraduates are recommended to work in teams to ease the transition to the professional environment.

- Creativity deals with knowledge that a particular problem requires special attention. Additional knowledge of the problem and the right questions facilitate the process of problem solving. For achieving this, the exploration of multiple ways to solve the problem is needed in order to create an unusual idea to fit the task. In the academic environment PR undergraduates can practise team-work, brainstorming techniques and pools of ideas for finding unique solutions to given problems.
- The critical thinking competence is achieved through revealing the true information to give up mistaken or false opinion. Information can be classified into several groups to give original answers to the posed questions. For PR experts it is essential to classify and keep information and connect it to the real world and the areas of learning. During their academic classes PR undergraduates can be divided into several groups to work in groups of 3-4 students for creating their own projected with certain assigned roles on the basis of the digital tools.
- In the Digital Age one of the most important competences is the digital one, as it is succeeding the information society, which in its turn substituted the Age of the Industrial Revolution. The spread of the Internet, the development of the computer technologies and the advent of social networks, which have spread around the world having turned into a global network, giving rise to the concept of Metaverse. With the idea gaining momentum, it becomes highly essential for PR specialists to master new technologies and apply novel strategies bearing in mind the digital competence.
- The digital competence, as proposed by the Council of Europe's Reference Framework of Competences for Democratic Culture (Recommendation Council, 2018), establishes a set of principle, universal values, skills and attitude required for the professional practice of PR specialists. This competence also marks the professional

behaviour and appropriate participation in the democracy oriented society. Together with the full transition of all spheres of human activity PR practice has also been shifted to the digital space, which helps them communicate with the audience and circulate information throughout the globe instantaneously. PR undergraduates should practice the use of social networks, websites and other digital tools for professional purposes.

- The development of the digital competence needs constant perfection and sustainable learning. Thus comes the learning to learn competence, which also provided in the European Reference Framework of Competences.
- For PR undergraduates it is essential to develop the learning to learn competence (Recommendation Council, 2018), which includes the ability to reflect upon one's professional performance, effectively manage the information flow, work in the multimodal environment, remain resilient and manage one's own professional development and career. The competence also includes the ability to cope with uncertainty and complexity in the world of volatility and ambiguity. Future PR experts should learn to maintain their physical and emotional state, physical health and lead a future-oriented life, as well as manage conflicts in the supportive context.

As seen from the provided vision of necessary competences of the professional L2 PR education it becomes relevant to harness both, hard and soft skills. With the rapidly changing world and the working environment, PR specialists should not lag behind. Soft skills here presuppose not only social interaction of the participants of the communication process, but also a high level of cognitive abilities development and personal qualities that contribute to the efficient personal performance. The success in the professional sphere of public relations very much depends on the developed competencies during the process of education and at the workplace. The L2 is trained in all of its aspects by means of practice and joint projects of the PR undergraduates to prepare them for international communication in their professional life.

The afore described competences ensure successful education of L2 within professional PR education to help instilling all the necessary qualities and attitudes of the future experts of the field. The competences of communication, collaboration, critical thinking, creativity,

character, citizenship competence alongside the digital one are among most required qualifications among employers. In addition, during specially conducted L2 classes PR undergraduates develop the skills of business communication and teamwork, learn proper communication through socialization and motivation. And finally, future PR experts develop the skills of independent research, taking responsibility for the result of work. It is also worth noting, that the competences development has become possible with the introduction of interdisciplinary approach to education of PR undergraduates.

### Conclusions

The research that has been carried out testified that competence-based education in the development of public relations undergraduates in the 21<sup>st</sup> century is the present day framework for teaching and assessment of learning. Competence-based professional education relies highly on the developed competencies focusing on results and real-life professional activities, contrasted usually to traditional methods of assessment in education.

Competency consists of competences, provided by professional PR performance, the basis of which is acquired during higher professional education with the application of digitalization and gamification. Educational competence is a requirement for educational training, expressed by a set of interrelated semantic orientations, knowledge, skills and experience of the undergraduates' activities in relation to a certain range of objects, necessary for the implementation of personally and socially significant actions. In the globalizing VUCA-world a future PR expert needs to be specially prepared to answer the societal needs and take flexible decision. The emotions and empathy are keys to knowing the audience and the professional development. Moreover, the digital transformation of education presupposed the development of soft skills connected with the application of professional expertise within the digital environment.

The novel digital competence is comprehensive, as it involves all the previously developed competences, such as critical thinking, creativity, communication, collaboration, global citizenship and character. Digital competence demands constant learning and honing of skills. Future PR experts should understand not only how digital technologies work, but should be able to support communication, support the general principles

and share ethical concerns underlying the relevance of digital technologies and the professional activity they perform. The achievement of the public relations goal in establishing harmonious existence between the company and its public is facilitated by the modern technologies having no borders to embrace the whole world. The advantages for PR undergraduates of the development of the described competences include practice-orientation, aims at mastering tools for self-development in the chosen field of professional activity.

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## Distance education: A ruin of health

### Educación a distancia: Una ruina de salud

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#### Abstract

This review essay addresses the problem of interaction between humans and technologies within the educational context. To what extent are the problems and consequences of the measures taken with regard to the introduction of distance learning realized today? The issue of integral combination of many elements of the educational environment is being investigated. On the basis of a variety of literature on educational, social, psychological, and brain sciences, using the methodology of reasoning, the conditions of quality life of the educational process are determined, including first of all the problems of formation of morality, responsibility and initiative of the student, as well as mental and physical health. The actual end result was the establishment of fact that it is fundamentally impossible to replace direct or personal education (upbringing) by its distant, irresponsible, remote form. Transformation of the educational environment through the separation of individuals from each other does not only lead to the exhaustion of opportunities to obtain quality knowledge, but also to chamber loneliness with disastrous consequences for moral, mental and physical health.

**Keywords:** distance education, personality, upbringing, care.

#### Introducción

Education and upbringing are often discussed in the context of student assessments, retention of control over the learning process, and satisfaction with the goals and outcomes achieved. Accordingly, there is sufficient evidence of inappropriate, confusing, or superficial

#### Resumen

Este ensayo de revisión aborda el problema de la interacción entre humanos y tecnologías dentro del contexto educativo. ¿En qué medida los problemas y las consecuencias de las medidas tomadas con respecto a la introducción de la educación a distancia se hacen realidad hoy? Se está investigando el tema de la combinación integral de muchos elementos del entorno educativo. Sobre la base de una variedad de literatura sobre ciencias educativas, sociales, psicológicas y del cerebro, utilizando la metodología del razonamiento, se determinan las condiciones de calidad de vida del proceso educativo, incluidos en primer lugar los problemas de formación de la moralidad, responsabilidad y iniciativa del alumno, así como la salud mental y física. El resultado final real fue el establecimiento del hecho de que es fundamentalmente imposible reemplazar la educación (educación) directa o personal por su forma distante, irresponsable y remota. La transformación del entorno educativo a través de la separación de los individuos entre sí, no solo conduce al agotamiento de las oportunidades de obtener conocimientos de calidad, sino también a la soledad recámara con nefastas consecuencias para la salud moral, mental y física.

**Palabras clave:** educación a distancia, personalidad, crianza, cuidado.

assessments of particular educational procedures, methods, and trends contained in the literature. For example, it often happens that solely the students' best academic performance leads to the conclusion that teaching technology is of high quality. Sometimes such significant

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characteristics of an educated person as personal value of knowledge, satisfaction with knowledge acquisition, charismatic roles of knowledge stimuli, knowledge leading to leadership, emotional enrichment, relaxation in understanding, increased sensitivity to new things, change in the influence of knowledge, knowledge affecting personality change, and distancing oneself from knowledge are overlooked. In addition, the phenomena of mood change, empathy, enthusiasm, apathy, insecurity, fears, growing misunderstanding are poorly studied. The world of educational texts, unfortunately, almost does not contain materials about teaching care, the role of moral guidance, responsibility for the act and the decision made. Education and science began to approach the current state of affairs long ago. Already in the 60s of the last centuries the question of mechanistic approach to a person occupied minds of psychologists, sociologists and teachers. For example, A. Maslow wrote about a fierce tendency to technologize human problems, to free them from values and to turn them into a matter of technology in the sphere of education, education, social service and other professions (Maslow, 1966).

The knowledge about an object is not completely defined and verified. It is always ambiguous, or better said - multi-faceted, diverse. This versatility is often located in the irrational area of possible knowledge (Wood & BackWell, 2012; García, 2008; Madsen, Riis, et al., 2008), indirect knowledge (Fershtman, & Gandal, 2011; Toivonen, Lenzini & Uusitalo, 2006; Eraut, 2000) and reflected (lost its own light) knowledge (Mortensen & Neeley, 2012), including knowledge related to the variability of behavior (Wright & Mischel, 1988). Acquiring knowledge and transferring it correctly is also a complex, multilayered task. Such a task - as a ball of threads - weaves together social, personal, methodological, technological, moral, and ethical links, each of which cannot be ignored when developing an educational solution. Otherwise, the result will be harmful, which can cause unexpected harm to mental, physical and moral health.

### **Education of the image. Involvement in knowledge by trust**

Communications, including educational ones, which have received a powerful impulse of IT opportunities in the last decade, are looking for proofs of improving and raising the quality of human interaction and knowledge acquisition. Since human interaction is based on the

foundation of trust, one can observe how trust is under increasing pressure from remote communications researchers. Here is what they sometimes write: "the trust factors offer clues for how to better social media communication and improve platform functionalities. For example, convenience is found to be a salient factor with respect to group communication, through calculative considerations. Convenience suggests the tool is cheap, easy to use, and quick in action" (Cheng, & de Vreede, 2017). In other words, the cheapness, simplicity and speed of use of some IT functionality leads to convenience and trust. From the point of view of human activity, it causes serious doubts. But there are more and more such texts today, especially when only conditional satisfaction is a measure of interaction quality: "the lower satisfaction for members located at headquarters emanates from their frustrations in communicating with others at remote sites" (Henderson, Stackman & Lindekilde, 2016).

Trust is still essential as a channel not so much for knowledge transfer as for close ethical, personal communication: "It concludes that a community of inquiry shifts the ethical learning relation in significantly different ways because for educational growth, it values ethical trust more highly than a strategic trust in logical principle, duty, Truth, or cost/benefit analysis" (Haynes, 2018).

The next step towards the educational goal through trust and learning is awareness, which makes knowledge effective, alive and responsible, especially in an uncertain environment (Sacha, Senaratne, et al., 2015). Knowledge is like vision, which sees the world as holistic and beautiful, rather than fragmented and fragile. Knowledge is considered the "dominant concern" (Endsley, 1995). And we return to the context of awareness and trust in that context. The understanding of the goals and intentions of those around us depends on the content of the learning context. Some researchers point out that incoming understanding is based on modeling the behavior of others in our own nervous system, pointing to the theory of embodied knowledge, that is, body knowledge and how it interacts with the world (Grafton, 2009; Shapiro, 2019). The activity is directly related to thought and bodily incarnate knowledge (Koziol, Budding & Chidekel, 2012). In (Kirsh, 2013) it is stated that "we think with our body, not only with our brain" and "we know more by doing than by seeing". The actions of bodies in the classroom and our thoughts associated with them fill the context and fertilize

the trust of learning. The valuable thought that we think with our bodies and know more - doing rather than seeing - speaks to the diverse richness of context. Consequently, educational methods and tools cannot be approached by simplification and other reductionist policies. This inevitably entails the cost of quality knowledge. But we talk about trust, and this is much more than just the quality of students' knowledge. It is about cultivating an image, forming and nurturing a versatile personality.

It can be argued that trust in the teacher attracts knowledge, creating a special environment, an atmosphere of thirst for knowledge and vital interests. Trust is required at all levels and in all aspects of student interaction with the teacher and among themselves, which means that it is necessary to have access to the details and nuances of the educational process, not only to see the naked, plucked result. This is even more important if we consider the introduction of a performative approach based on quantitative lifeless effectiveness into the educational process. S. Ball (2003) wrote: «the ethics of competition and performance are very different from the older ethics of professional judgement and co-operation». In other words, replacing care and trust with efficiency and productivity can change the very essence of education by creating "measurable" relationships, assuming that they are more manageable and, accordingly, less alive. S. Ball goes on to exclaim: «effectivity rather than honesty is most valued in a performative regime!» (2003). This mode looks very attractive because of its measurable controllability: the fewer incalculable elements in the education management system, the easier it is to make "effective" decisions and draw up winning reports.

Quantitative efficiency, calculation, numerical report - blind antagonists of trust, ethics and care. Does this mean that relying on efficiency and calculation should be avoided in every possible way. Yes! If it directly opposes trust and filling the context of interaction with embodied knowledge.

Another aspect of trust is the manifestation of emotions and their effectiveness, especially since emotion is closely related to the context of activity, which is consistent with the theory of embodied cognition (Winkielman, Coulson & Niedenthal, 2018). Emotion, as a manifestation of empathy, empathy, and a lively response resulting from the collaborative actions of teachers and students, can be seen as the trust base of a holistic educational context.

Some researchers point out interaction risks directly related to trust: the problem of knowledge sharing; problems of coordination of common activities; communication personal barriers (Nicolás, & De Gea, 2018). However, a positive correlation between trust and the success of cooperation, between trust and knowledge transfer is definitely in place (Humayun, & Jhanjhi, 2019; Levin, & Cross, 2004; Li, 2005).

There is also the problem of authenticity of trust associated with selective attention and rationality of choice. The paper (Lindenberg, 2000) states that "people can be trusted if they do not think about doing something that violates trust. In addition, the authors point out that the costs of complying with the rules will be ignored by behavioral reasoning, that is, by common sense. Focusing on knowledge transfer and perception, researchers forget about changing behavior that is not only consistent with common sense, but also due to irrational reasons.

The conceptual apparatus and results developed in the individual and general contexts of training, as well as well-established and tested strategies and tactics of specific behavior in a situation dictates that we need to observe the thought of the person being brought up also in the context of psychological processes and problems. First of all, we point out the theory of cognitive load (Sweller, van Merriënboer, & Paas, 2019; Sweller, van Merriënboer & Paas, 1998), as well as its expansion into the surrounding community of collaborative learning (Kirschner, Sweller, et al., 2018).

Today, perhaps, the only thing left to dream about is the creativity of the teacher, who builds a holistic image of the student. However, some researchers still insist on the central role of creativity in education and upbringing (Chappell & Craft, 2011). And group creative activity is certainly connected with support for each other. Creativity and finding people shoulder to shoulder provides the connecting threads of invisible interaction between students and teachers. This fusion of creativity, emotions, empathy, doubts and mutual interests establishes a unique (but not universal) environment of cognitive, interactive, sympathetic actions and responses that will predetermine the fabric of a unique personality.

Details, components, structure of the educational environment are well studied and known. Assuming their fragmentation, we will add to them for completeness some additional elements, which, in our opinion, can not be left out of

attention, otherwise the picture of the educational context will be distorted. It should also be understood that the educational context itself is dynamic and changeable. It is appropriate to compare it with a passing life, in which there are both controlled components and vague, implicit, woven by life itself. The dynamics of the educational context also relate to the perception and experience of the individual as a response to life's variability. But, of course, the dynamics of the context can also be influenced from the outside by introducing technological (e.g., clickers) and human (e.g., games) means of interaction and participation in a single learning process.

There is a concept of general emotion that enhances the perception of the material. The authors of the work (Metiu & Rothbard, 2013) base their conclusion on the R. Collins' theory of interaction ritual (2014): "We define how the mutual focus of attention develops through the presence of a volume of tasks that focuses attention, creating barriers to outsiders and effectively using artifacts related to solutions. A shared emotion is the result of mutual focus and enhances it. They also define the mutual focus that students develop and maintain, which is necessary to achieve collective progress in solving a problem. Work (Krueger, 2013) argues that this enhancer effect of shared emotion is based on natural interactions between children from an early age, and positive emotions are based on shared experiences. In the context of shared emotions, there is talk of group emotions of joy and group effectiveness (Rhee, 2006), as well as predictability of behavior (Salmela & Nagatsu, 2017). Thus, mutual focus, shared emotions and shared experiences form a collective amplifying impulse of knowledge. And the emerging group emotion of joy seems to confirm a positive educational effect.

The emerging emotion is inextricably linked to the sphere of feelings and personality behavior. Predictability of behavior makes it possible to get a stable feedback and, as a result, to increase the manageability of the educational process. There is a significant body of texts exploring positive organizational behavior, which, F. Luthans (2002) states, will reveal unique psychological abilities that can be reliably measured, and are open to the development and management of personal effectiveness. By understanding organizational behaviors as joint, shared activities dedicated to achieving a common goal, we discover positive group cognitive effects.

In work (Rogoff, Paradise, et al. 2003) we met a wonderful term - "to listen to current activities". It means perfect integration not only within a certain group with limited (educational) tasks. Such cultural integration allows us to develop participation in mature social activities (Rogoff, Paradise, et al., 2003), which represents one of the highest values of education. Moreover, researchers insist that "learning happens when people participate in common efforts with others" (Rogoff, 1994). It is no longer just a matter of common space, common thinking, common emotion, but a common effort. In other words, the context of learning needs to become a single, holistic living organism in which the power of reflection and the power of knowledge are linked. They have to act organically, and the destruction of such an organism is not safe. The result of such a cultural organic context is an enterprising person (Paradise, Mejía-Arauz, et al., 2014) who creates an active space around him or herself, capable of solving any task assigned to him or her.

We have already briefly mentioned the existing theory of embodied bodily knowledge (Koziol, Budding & Chidekel, 2012; Kirsh, 2013), which affirms the positive participation of the body in the processes of cognition. As far as the acquisition of a bodily manifestation is concerned, it is easily imaginable, since it can be a training or a joint music-making (Walton, Washburn, et al., 2018). However, in today's science, integral phenomena, such as the links between the body, mind and society, are increasingly being investigated (Brugger & Lengenhager, 2014). Such research can give a serious impetus to the emergence of new progressive methods in education, based primarily on collected social, psychological, neurotic and even extreme psychiatric data about the human brain, thought, body and society.

### **Transforming contexts, relationships and health**

Any change in the established educational context, especially outwardly obsessive and categorical, entails a transformation not only of the process of acquiring skills and knowledge, but also changes the deepest structure of relationships between people, their social saturation, creative activity and purposefulness. Satisfaction decreases, and with it the perception, understanding and assimilation of the information presented.

Let's assume that by inviting the reader to a constructive presentation, we will be able to

depict the details in such a way as to make evident the transformation costs of the learning contexts. We will describe several imaginary situations in which relevant features can be separated from those that are unimportant for the subject in question.

The first transformation will be spatial. Let's imagine such a picture: the pupils are gathered in an audience that suddenly loses its walls. They find themselves on the bank of a narrow but rapid and deep river. The teacher is moved to the other side of the river and from there tries to reach his students. He manages to do it with effort, and, let's say, information is perceived and even understood by pupils. However, the quality of assimilation of this knowledge will probably not be higher than in the classroom. In addition, in such a situation, there is neither the classroom atmosphere nor a common fire of initiative, and the general emotion and bodily knowledge is reduced because of the effort wasted on extra effort to hear the teacher from the other side of the river.

Now we will aggravate the spatial situation. Now the teacher is not just on the other bank of the river, but there is also a barrier in front of him, and he does not see the students at all. What is his comfort level now? We can confidently assume that there is no teacher who wants to communicate with students through the wall, without seeing them, hardly hearing them, without feeling their presence, without a variety of smells and emotions. Equally, students are unlikely to be satisfied with such a turn of events, although they can still communicate with each other, discuss the subject and have the opportunity of collective learning.

Then we will make a little indulgence: cut out the separating wall window. In this window the teacher can again transmit information to the other side and see from afar the reaction of listeners.

However, after simplifications, we will again exacerbate the transformation of the learning context. Let each student now be enclosed in a box office of individual space, so that joint body rituals, emotions, initiatives and scents would be impossible. Yet a window is still left to see the teacher through it. For the completeness of the picture, let the teacher himself be in the same box- room. So, all students have now cut out windows, through which they can hear the teacher, and a little bit of their neighbors. It is a surprisingly joyless painting. Even if we assume that the office boxes have food, a comfortable

chair or a sofa that promotes rest for a tired person. Students and teachers find themselves in an autonomous position, separated and alone in their cells.

At the end of the script, we will replace the box-room window with a computer with the ability to interact with the student and the teacher through the display, microphone and camera. After that the picture seems to be quite friendly and comfortable. We received the remote technology. Often, the implementation of some technology is conditioned by its effectiveness. For example: «The effectiveness of e-learning is enhanced by building efficient e-learning infrastructure, and making continuous standardization efforts, while social legitimacy is gained by establishing a sound regulatory system, applying a socially appropriate online pedagogy, raising public awareness, and building e-learning communities» (Teo, Kim & Jiang, 2020).

In addition, the quality of the implemented technology is described in terms of positive/negative relationship of its objects. The general positive attitude of students and faculty to the use of remote methods is noted, for example, in (Gerasimova, Melamud et al., 2018). Higher grades of students in distance learning are mentioned in (Guo, White & Zanelatto, 2015), but more dissatisfaction is mentioned.

In general, the benefits of distance learning methods include technological and technical advantages. Some researchers are still getting results on the preferability of face-to-face learning, but they also appeal to the technological side of learning, the best grades and the overall satisfaction index (Callister & Love, 2016; Weidlich & Bastiaens, 2018).

All satisfaction is based on internal, implicit feelings, difficult in their qualification, for which scales are usually used (Diener, Emmons, et al., 1985). In other words, references to satisfaction are often irrelevant to objective reality and can be manipulated. On the other hand, there is a real factor of fidelity or distinct doubtfulness of this or that approach. We are talking about health, the quality of which can be adequately evaluated and unambiguously related to context characteristics. In other words, any modification of the educational context must be under the close scrutiny of health and environmental professionals, psychologists, therapists and psychiatrists.

Let us now return to the last episode of the educational context transformation scenario

described above. Let's take a close look at the health risk factors of a student enclosed in a separate box office or camera, where any interaction with the outside world is limited to a display with a camera and a microphone.

Obviously, the first factor is the lack of social relations. Here is how experts write about the results of such a deficit: «Outcomes include depression, poor sleep quality, impaired executive function, accelerated cognitive decline, unfavorable cardiovascular function, impaired immunity, altered hypothalamic pituitary–adrenocortical activity, a pro-inflammatory gene expression profile and earlier mortality» (Hawkey & Capitano, 2015).

The same authors specify that the regulation and function of the hypothalamo-pituitary-adrenocortical axis: «influence a wide range of physiological functions that include glucose regulation, metabolism, inflammatory control, as well as cardiovascular, reproductive, and neuronal effects» (Hawkey, Cole et al., 2012).

Perception of social isolation, increases alertness and anxiety about implicit threats and increases the feeling of vulnerability, while increasing the desire to be in a team. These psychological processes affect physiological functioning, reduce sleep quality and increase morbidity and mortality (Hawkey & Cacioppo, 2010). N. I. Eisenberger and co-authors points out: «It is a basic feature of human experience to feel soothed in the presence of close others and to feel distressed when left behind» (Eisenberger, Lieberman & Williams, 2003).

There is evidence that increased perception of loneliness is accompanied by depressive symptoms (Bedard et al., 2017; Mwilambwe-Tshilobo, Ge et al., 2019). But the risks continue to spread. In (Holt-Lunstad, Smith, et al., 2015) it is indicated: «substantial evidence now indicates that individuals lacking social connections (both objective and subjective social isolation) are at risk for premature mortality». And in (Rico-Urbe, Caballero, et al., 2018) we can read: «Loneliness is a risk factor for all-cause mortality». Mortality from the creation of a distance learning context? Isn't the price of such a transformation great!? But that is not all. In his book (Churchland, 2018) the author writes: «separation and exclusion cause pain, and the company of loved ones causes pleasure; responding to feelings of social pain and pleasure, brains adjust their circuitry to local customs. In this way, caring is apportioned,

conscience molded, and moral intuitions instilled».

The author further stresses: "A key part of history is oxytocin - an ancient molecule of body and brain, which, reducing stress reactions, allows a person to develop confidence in each other, necessary for the development of close relationships, social institutions and morality. This is an important new evidence of what really makes us moral. Oxytocin, which binds brain activity, social participation and morality, is mentioned in many works, for example: (Kosfeld, Heinrichs, et al., 2005; Heinrichs, Baumgartner, et al., 2003; Riedl & Javor, 2012).

Thus, participation, care, trust and morality, about which much was mentioned in the beginning of the article, are antagonists of remote learning. Are we ready to sacrifice morality to distance education?

But educational isolation also leads to serious psychiatric problems. These include generalizable psychiatric syndrome (Grassian, 1983), attention deficit syndrome (Kim, Park et al., 2019), depression and neurosis (Mengin, Allé, et al., 2020).

Even in healthy people serious mental and physical disorders are provoked (Bennion, 2015). Some authors associate social isolation with incarceration and point out that solitary confinement is itself a cruel punishment (Coppola, 2019), the consequences of which are significant (Smith, 2006) and call it social death (Guenther, 2013).

Finally, we have received extensive literature on the problems of psychology and psychiatry in social isolation due to COVID-19 (Guessoum et al., 2020; Li & Wang, 2020; Banerjee & Rai, 2020; Killgore, Cloonen et al., 2020). According to these studies, not a single positive result for mental and physical health in creating artificial loneliness for a person has been identified.

So, what can be achieved by transforming the context - the context of being, the context of communication, the context of education? Numerous research results in completely different fields show clearly negative consequences of students' health, psyche, morals in the conditions of deprivation of their vitality, pulling out of each other's arms, making them nervous and worried about the lack of full-blooded communication, depriving them of care about each other and the opportunity to help.

## Conclusions

Many of the works studied in this essay are trying to solve the problems of physical, mental and moral health: depression, meaning, emotion, trust, knowledge, care, communication. But they almost do not ask the question of causality of these manifestations of personality. It is this disinterestedness, in our opinion, which leads to the appearance of harmful practices of treatment of a person in education, upbringing, treatment, care. This indifference, along with the callousness of calculation and the desire for numerical estimates, leads and has already led to monstrous practices of distance education. In this detachment, distance from the person there is a sign of complete indifference and irresponsibility, expressed in the form of lack of attention, care, denial of sensitivity and personal empathy. This position is worse than the cynicism of performativity that S. Ball has written about (Ball 2003). It is a multiplier effect of moral mortification and complete human degeneration. What is terrifying is that such a ruin to personality is surrounded by increasingly thickening pink clouds of illusions of happy e-learning, surrounded by the smiles of happy parents, happy teachers, and successful students.

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## Implementing SexEd programs for persons with disabilities: A Survey of Teachers' Views

تطبيق برامج التربية الجنسية للأشخاص ذوي الإعاقة: مسح آراء المعلمين

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### Abstract

The aim was to investigate teachers' views regarding implementing SexEd programs for persons with IDs. Teachers' views regarding implementing SexEd programs for persons with IDs was studied. Teachers must be teaching in special education, both sexes (males and females). Participants were 180 teachers (females, n= 30, 16.6%, and males 150, 83.4%). No differences were found between the two sexes in their responses towards implementing SexEd programs for persons with IDs. Teacher's age had significant effect on respondents' responses towards implementing SexEd programs for persons with IDs. Old teachers had positive responses towards implementing SexEd programs for persons with IDs.

**Key words:** SexEd programs. persons with IDs. Teacher's age. Years of experience.

### Introducción

Sex instinct is important for the preservation of offspring and the continuation of life, and instinct means the vital motive for the activity of the organism to maintain its survival and satisfy its needs (Schmidt et al., 2021). The libido is defined as the human sexual drive to maintain its survival and continuity. In the event that this impulse is not satisfied in a proper manner that is consistent with instinct and religious and social controls, sexual problems occur. In order to confront and limit these problems, Western reformers and educators ended up with what is

### المستخلص

هدفت الدراسة الى مسح آراء المعلمين فيما يتعلق بتنفيذ برامج التربية الجنسية للأشخاص ذوي الإعاقة العقلية. تمت دراسة آراء المعلمين فيما يتعلق بتنفيذ برامج التربية الجنسية للأشخاص ذوي الإعاقة العقلية. ينبغي أن يكون المعلمون ممن يعملون بالتدريس في التربية الخاصة من الجنسين (ذكور وإناث). كان المشاركون 180 معلمًا (إناث، n = 30 ، 16.6% ، ذكور 150 ، 83.4%). أشارت النتائج إلى عدم وجود فروق بين الجنسين في استجاباتهم تجاه تنفيذ برامج التربية الجنسية للأشخاص ذوي الإعاقة العقلية. كان لسن المعلم تأثير كبير على استجابات المستجيبين تجاه تنفيذ برامج التربية الجنسية للأشخاص ذوي الإعاقة العقلية. كان للمدرسين القدامى ردود فعل إيجابية تجاه تنفيذ برامج التربية الجنسية للأشخاص ذوي الإعاقة العقلية.

الكلمات الدالة: برامج التربية الجنسية للأشخاص ذوي الإعاقة العقلية. الأشخاص ذوو الإعاقة العقلية. عمر المعلم. سنوات من الخبرة

known recently as sex education (Kammes et al., 2020)

Sexual education is a comprehensive psychological process that aims to bring about the greatest change and discipline in misconceptions and inherited ideas related to sexual concepts, in order for society to understand social relations on a sound scientific basis (Kürtüncü & Kurt, 2020). Or it is the kind of education that provides the individual with scientific information, good experiences, and

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sound attitudes towards sexual issues (Quesado et al., 2022).

Parents play a major role in deciding the amount of information that needs to be provided to children at any stage of their development, and their role undoubtedly comes supported by the role of the school or educational institution (Kürtüncü & Kurt, 2020), which would teach their children the anatomical structure of the reproductive system, which helps them understand its vital and physiological functions, and this in turn it helps them realize the extent of the privacy of their bodies, and the school or educational institution must clarify the physical changes that occur to the individual during the various stages of his development and the attendant transitional, psychological, and social changes before these changes start to occur. The school also works to strengthen moral values and social standards, clarify ways of free time and explain various sexual diseases and their expected dangers (Sala et al., 2019).

#### **Aim of the study**

The aim was to investigate teachers' views regarding Implementing SexEd programs for persons with ID.

#### **Problem statement**

The literature indicates that the role of the family and school in providing information on sex education is weak, because there is a belief that talking about sex and sexual issues is dangerous to avoid. It stimulates sexual desire in children and adolescents, and may push them to satisfy their needs in immoral ways (Frank & Sandman, 2019; Grove, Morrison-Beedy, Kirby & Hess, 2018; Sala, Hooley, Attwood, Mesibov & Stokes, 2019; Schmidt, Robek, Dougherty, Horstman & Darragh, 2020).

#### **Hypotheses**

1. Differences will be found between both sexes in their responses towards implementing SexEd programs for persons with IDs.
2. Old teachers will have positive responses towards implementing SexEd programs for persons with IDs.
3. More experienced teachers will have positive responses towards implementing SexEd programs for persons with IDs.

## **Literature Review**

### **Sex Education For Individuals with ID**

Individuals with IDs are limited in their intellectual functioning and adaptive behavior (Soliman, 2015; Ćwirynkało et al., 2016; Eissa and ElAdl, 2019).

Children who have an IDS have more behavioural and sexual problems than children who do not have a disability. Despite this, it is wrong to imagine that the images of inappropriate sexual behaviour issued by people with mental disabilities are an inevitable result of mental deficiencies, and that they cannot be modified or prevented from appearing (Anna et al., 2018). The majority of abnormal sexual behavior is learned or acquired in light of people with IDs living with certain experiences and environmental conditions, and therefore modifying these conditions and providing alternative experiences help achieve two goals, the first is to get rid of forms of abnormal sexual behaviour, and the second is to teach normal sexual behaviour (Travers et al., 2014). This amendment is regulated by specific scientific foundations, requirements, procedures and techniques, organized within the framework of what is termed sexual education for persons with mental disabilities (Travers & Tincani, 2010).

Topics of SexEd for persons with IDs include knowing one's own gender, determining the gender of other people, using male or female terms, using the toilet correctly, using appropriate gender pronouns, knowing the anatomical structure of both sexes, and naming three terms for the reproductive system (Sparks, 2004). Male, naming three terms specific to the female reproductive system, correct knowledge of the age of puberty for females, correct knowledge of the age of puberty for males, possession of information about the sexual relationship between male and female, knowledge that the sexual relationship between both sexes may lead to pregnancy, general information about sexual relations, information about masturbation (McDaniels & Fleming, 2016), correct knowledge of birth control, correct knowledge of venereal diseases, information about same-sex relations, correct information about love, correct information about marriage, correct information about the responsibilities of spouses, correct information about laws related to sex, and responsibility for sexual activity (Pownall et al., 2012).

Sex education helps people with mental disabilities protect themselves from sexual assault and harassment. Sex education for persons with mental disabilities is also necessary to prevent illegal pregnancies of girls with intellectual disabilities, to prevent the occurrence of sexually transmitted diseases, and also to promote adherence to social norms of sexual behaviour (Skarbek et al., 2009). There is a study that emphasized the importance of sexual education provided by counsellors to persons with mental disabilities, to promote sexual health for them, and that this education requires the person carrying it out to be able to implement sexual education programs in proportion to the age stages of people with mental disabilities (Holmes et al., 2014), starting with basic concepts in childhood, and then talking about the ability of people with mental disabilities to express Sexual life in proportion to their mental age in adolescence. and their ability to adhere to social and ethical standards regarding their sexual behaviour in adulthood, which helps to integrate them into society (Brown-Lavoie et al., 2014).

**Methodology**

The main focus was on teachers' views regarding implementing SexEd programs for persons with ID.

**Table 1.**  
*ANOVA for differences in teachers' views.*

	Sum of Squares	df	Mean Square	F.	P
Between Groups	1,154	2	0,385		
Within Groups	42,536	177	0,367	1,948	0,374 not sig.
Total	43,681	179			

The second hypothesis states " Old teachers will have positive responses towards implementing SexEd programs for persons with IDs.)" ANOVA was used As shown in table 2, the F-value was less than the alpha level  $P = 0,012 <$

**Table 2.**  
*ANOVA for differences in teachers' views.*

	Sum of Squares	df	Mean Square	F.	Sig.
Between Groups	22.996	3	4,599		
Within Groups	71,942	176	2,35	19,56	0,012 sig.
Total	94,938	179			

**Participants and procedure**

A convenience sampling method was used. Teachers must be teaching in special education, both sexes (males and females). Teachers could access the questionnaire electronically. They should answer the questions. Respondents were 180 teachers (females, n= 30, 16.6%, and males 150, 83.4%).

**Instrument**

The questionnaire contained 22 items. Demographic information was included. The five-point Likert scale was used to score the research tool. The instrument had a good degree of reliability and validity. Cronbach alpha reliability coefficient was 0.87.

**Results and discussion**

The first hypothesis stated that "differences will be found between both sexes in their responses towards implementing SexEd programs for persons with IDs ", ANOVA was used regarding the teachers' views. The results are shown in table1. As shown in table 1, F-value was greater than the alpha level  $P = 0,374 > 0.05$ . Therefore, differences were not found between both sexes in their responses towards implementing SexEd programs for persons with IDs.

0.05. Hence, teacher's age had significant effect on respondents' responses towards implementing SexEd programs for persons with IDs.

The third hypothesis states " More experienced teachers will have positive responses towards implementing SexEd programs for persons with IDs ", ANOVA was used. As shown in table 3 the F-value was less than the alpha level  $P =$

$0.013 < 0.05$ . Hence, experienced teachers had positive responses towards implementing SexEd programs for persons with IDs.

**Table 3.**  
*ANOVA for differences in teachers' views.*

	Sum of Squares	df	Mean Square	F.	Sig.
Between Groups	86.35	3	43.18		
Within Groups	1181.43	176	9.60	4,50	0,013 sig.
Total	1267.78	179			

The aim was to investigate teachers' views regarding Implementing SexEd programs for persons with ID. The first test hypothesis stated that differences will be found between both sexes in their responses towards implementing SexEd programs for persons with IDs. Results indicated that differences were not found between both sexes in their responses towards implementing SexEd programs for persons with IDs. Though some authors (e.g., Ionescu et al., 2019), it was found that the male participants in our sample were more open towards communicating with children about sexuality topics than the female gender participants. Thus, it can be said that both male and female participants in this study appeared to be less influenced by restrictions imposed by our society regarding talking about sex.

The second test hypothesis stated that "Old teachers will have positive responses towards implementing SexEd programs for persons with IDs". Results indicated that teacher's age had significant effect on respondents' responses towards implementing SexEd programs for persons with IDs. The majority of young teachers find that they are not competent enough to teach sexuality of persons with IDs (Meaney-Tavares and Gavidia-Payne, 2012).

The third test hypothesis stated that "More experienced teachers will have positive responses towards implementing SexEd programs for persons with IDs". Results indicated that experienced teachers had positive responses towards implementing SexEd programs for persons with IDs.

It is clear that the attitudes of experienced teachers are more positive than those of inexperienced teachers towards teaching sexual education topics. This may be due to the fact that more experienced teachers are more familiar

with persons with mental disabilities, and may have positive attitudes towards them more than others compared to teachers with less experience. This matter needs more research and study (Tamas et al., 2019).

### Conclusion

The majority of abnormal sexual behaviour is learned or acquired in light of people with IDs living with certain experiences and environmental conditions, and therefore modifying these conditions and providing alternative experiences help achieve two goals, the first is to get rid of forms of abnormal sexual behaviour, and the second is to teach normal sexual behaviour.

### Recommendations

SexEd must be a continuous process, not limited to a certain age, but starting from childhood and then continuing during and during adolescence until adulthood and before, during and after marriage. SexEd must be at home, at school, at the university, and in family planning institutions, so that these aspects are integrated. For example, the school should fill in the gaps that remain from SexEd in the home. The use of some scientific films specialized in growth and reproduction, followed by a discussion period. It is better to use whatever images, drawings and models are available, and it is preferable if it is possible to visit some medical exhibitions and museums. It is useful to visit zoos and the countryside where life, pollination, eggs, hatching and reproduction between birds and animals in an atmosphere free from human emotional complexities. Simple books that explain the primary principles of SexEd must be prepared to be accessible to parents and educators.

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