Development of entrepreneurial competence among future specialists in the face of social changes

Розвиток підприємницької компетентності майбутніх фахівців у вумовах соціальних змін

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Abstract

The article focuses on developing the entrepreneurial competence of vocational education students in the era of crises in public life. The relevance of the current study arises from the fact that the dynamics of the traditional methodological approach, given the global trends, determines the priority of focusing on the competence approach. The aim is to analyze the possibilities of innovative technologies for the development of entrepreneurial competence of vocational education students during the period of societal transformation and crises. Substantiated the structure of the entrepreneurial competence of future specialists, which synergizes professional and personal components. The identified vectors for improving the educational process aimed at forming information, digital, communication, and intercultural competence in vocational education students as essential components of

Áнотація

У статті йдеться про формування підприємницької компетентності здобувачів професійно-технічної освіти в епоху криз суспільного життя та активних трансформаційних процесів. Актуальність дослідження зумовлена тим, що динаміка традиційного методичного підходу в освітньому процесі з огляду на світові тенденції зумовлює пріоритетність орієнтації на компетентнісний підхід. Мета – проаналізувати можливості інноваційних технологій для розвитку підприємницької компетентності учнів професійно-технічної освіти в період трансформації суспільства та кризи. Обґрунтовано структуру підприємницької компетентності майбутніх спеціалістів, яка поєднує в собі професійну та особистісну складові. Визначено вектори вдосконалення освітнього процесу, спрямовані на формування інформаційної, цифрової,

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their overall professionalism. Established that the need to actualize the phenomenon of entrepreneurial competence is caused by the specific requirements of today's professional qualities of a specialist, characterized by specific content and a specific focus on professional activity. Found that digital literacy, logical thinking, and effective communication skills are among the promising areas for forming students' entrepreneurial competence. They have outlined the basic principles of implementation and development of interdisciplinary integration of the educational process through innovative technologies.

**Keywords:** vocational education, entrepreneurship, business project, career, entrepreneurial education, competence, thinking, business activity, creation of new jobs, counseling, training, entrepreneurship for youth.

**Introduction**

Professional training of vocational education students is seen as a pedagogical process. This process is expected to result in the formation of a holistic professional competence of a specialist. Innovative technologies for the development of entrepreneurial competence of vocational education students during societal transformation and crises are seen as promising tools for the formation of professional competence of future specialists. It identifies entrepreneurial competence as an essential feature of professional activity that synthesizes its integrative abilities, competencies, and personal qualities.

Recently, in the national educational space, great attention has been paid to the problem of forming the entrepreneurial competence of vocational education students in the context of a competency-based approach involving innovative technologies. In this regard, the concept of entrepreneurial competence of future specialists is considered a complex integrative feature. It represents a system of knowledge, skills, abilities, values, and personal qualities of specialists, which form the basis for their goals and ability to implement professional and social functions in the direction of effective entrepreneurial activity.

Many relevant interdisciplinary academic studies are devoted to the problems of forming and improving the entrepreneurial competence of future professionals in the context of crises and instability. Some modern scientists (Kraus & Kraus, 2021; Panchenko, s.f) are studying the peculiarities of transforming targeted strategies of the educational process of developing entrepreneurial competence in the context of global digitalization. Some scholars (Maslich, & Yermolenko, 2023; Radkevych, 2022; Zavgorodnia, 2020) reflect the issues of introducing innovative tools into the educational professional environment. They aim to develop effective communication skills in students and meet the requirements of digitalizing socio-economic processes.

Other scholars (Bazyl, 2022; Alieksieieva et al., 2020; Titova, 2020) note that in the context of political, economic and financial instability and crisis social phenomena, it is imperative to study the mechanisms of forming entrepreneurial competence by elaborating adaptive development strategies in the context of transforming the socio-economic environment.

It should be noted that, as of today, very little attention has been paid to identifying the functionality of the structural components of the...
entrepreneurial competence of vocational education students. Most developed world countries prioritize the democratization and informatization of society. This contributes to the formation of qualitatively new approaches in the field of economic education (Markova et al., 2019; Banit, 2019).

Future specialists should be prepared to work effectively both in the national economic environment and in a globally integrated financial hub. For this reason, the professional targeted educational activities of professional educational institutions should be based on competence-based principles.

This article aims to study the potential of innovative technologies for the development of entrepreneurial competence of vocational education students during the period of societal transformation and crises.

Literature review

The results of analyzing the scientific developments of the sociological, pedagogical, cultural, and economic vectors of modern research indicate a significant interest in the problem of forming entrepreneurial competence among scientists. This topic has gained particular relevance during the socio-economic transformation in Ukraine.

In particular, modern Ukrainian scholars focus their attention on the issues of forming the competitiveness of modern specialists in the context of educational diversification (Bazy1, Klymenko, & Orlov, 2019; Spitsyna, 2020) and the development of entrepreneurial competence skills (Seredina, 2021; Seredina, 2022; Klymenko et al., 2021).

From various scientific perspectives, the problem and its various aspects have been reflected in numerous research studies (Skakovska & Kotyk, 2020; Dembiskaya, Kobylansky, & Pugach, 2021; Kopniak, 2020). Specifically, contemporary research illuminates the structural elements of entrepreneurial competence among vocational education students (Chemenko, 2021; Dzwigol et al., 2020; Orlov, 2010). The scholars analyze the process of forming professional qualities of future managers (Sinambela et al., 2020). They also study specific types of entrepreneurial competence (Cebrián, Junyent, Mula, 2020; Spitsyna, 2006) and socio-cultural competence (Reis, Fleury, Carvalho, 2021; Bazy1, Fursa, Oruzha, 2021). Modern researchers explore the culture of professional communication and communicative competence of future specialists in finance and economics (Bratianu, Halfad, & Bejinaru, 2020).

At the same time, some scholars have generalized the issues of forming the structure of entrepreneurial competence among vocational education students during periods of societal transformation and crises (Eizaguirre, García-Feijoo, & Laka, 2019). Also, in some recent studies, the paradigm of investigated phenomena in the context of students’ personal maturity and engagement of interdisciplinary integration functionality is seen as a priority for the development of the vocational educational process (Baird & Parayitam, 2019).

Consequently, most contemporary scholars interpret the formation of entrepreneurial competence as the value basis for the professional activity of a future specialist. At the same time, the issues of functional aspects of the structural components of forming entrepreneurial competence of students, as well as the analysis of opportunities to improve the structural and functional model of this process using innovative technologies, are mostly ignored by modern scientists or are understudied. This actualizes the need for an expanded study of the research subject.

Materials and methods

The article is an analytical study conducted by the principles of comprehensiveness and systematicity of scientific research. This approach made it possible to analyze the research object as a whole system with multiple interrelationships and interdependencies.

The research was conducted using the following methodology. In the first stage, a critical analysis of theoretical concepts was carried out. Several scientific works and publications related to the studied discourse were elaborated, and the main principles of theoretical definitions were systematized and outlined. Based on critical analysis, it was possible to analyze the support of thesis arguments by modern scientists regarding opinions on one or another issue.

The methods of analysis and synthesis were used to identify the main factors in forming a set of structural components of future specialists' entrepreneurial competence. The inductive method was used to formulate prognostic directions for the development of the studied process. The deductive method was employed to identify the direction of forming an innovative educational concept in vocational education.
The next stage of the research methodology provided for the identification of the features of innovative technologies for the development of entrepreneurial competence of vocational education students in the period of transformation and crisis.

The method of abstraction was used to highlight theoretical generalizations, identify the main categories and concepts, as well as to formulate conclusions about the priority vectors of development on the formation of entrepreneurial competence. The comparison method was applied to identify the specific features of the modern innovative paradigm in the sector of entrepreneurial competence development among vocational education students using modern educational technologies, compared to traditional approaches to training.

During the final stage of the research, the main aspects of the use of innovative technologies for the development of entrepreneurial competence of vocational education students were revealed, their influence during the period of transformation and crises was revealed; further research prospects are determined.

Special attention is paid to the functioning of innovative technologies for the development of entrepreneurial competence in modern educational institutions of professional education. In conclusion, based on the proposed research methodology, it is possible to present the results obtained as a result of the conducted analysis.

**Results**

The problem of forming developed entrepreneurial competence among future specialists is a top priority in the context of active transformation of the socio-economic environment and the priority of development intensification. The modern dynamics of social processes predetermine innovative requirements for vocational education students, their communication and functional interaction with society, their awareness of rights and responsibilities, the ability to make correct decisions independently, and the most effective exercise of their abilities.

More generally, entrepreneurial competence ensures a form of specialist activity where their professional activity is carried out at a sufficiently high level. Such activity is marked by tangible economic results of work and the realization of personal potential. At the same time, it should be noted that the entrepreneurial inclinations of specialists are determined by the ratio of their professional skills as well as professional and psychological qualities. Entrepreneurial competence implies the existence of a psychological condition of specialists, allowing them to act independently, possessing the ability and skill to perform certain labor functions and be responsible for their consequences. Thus, it can be argued that the main essence of entrepreneurial competence is an integral psychological quality of a personality. It is manifested in the effective implementation of new ideas, motivated by the ability to creatively search, which allows for solving several problematic situations in social and professional activities.

The basis for the formation of entrepreneurial competence of a vocational education student requires a combination of traditional teaching principles. These principles include a scientific approach, awareness and purposefulness of the learning process, proactivity, thoroughness and independence in learning, adherence to the principle of linking learning with practical activities and realities of life, and innovative ones. The latter principle includes intensification of the learning process, the use of interactive learning and creative development opportunities, and innovative visualization (Figure 1).
Based on Figure 1, it is worth noting that the principle of scientificity requires compliance of educational discipline content in the professional training curriculum with modern scientific achievements. Vocational education applicants should receive detailed and systematized latest scientific achievements that introduce them to the conceptual foundations of entrepreneurship, the categorical and conceptual apparatus of entrepreneurial activity, and the laws of the market economy. They should also understand their cause-and-effect relationships concerning the needs of modern society (Chernenko, 2021; Dzwigol et al., 2020).

The principle of consciousness and commitment within the framework of innovative technologies for the development of entrepreneurial competence is characterized by a positive motivation for educational activities and an understanding of the goals and objectives of the entrepreneurial component of professional training. The implementation of this principle should facilitate conscious decision-making on the use of knowledge of entrepreneurship basics in further professional activities. The principle of proactivity and independence contributes to the formation of students' initiative and prevents indifference and rigidity. This principle is realized in the organization of students' independent work.

The principle of linking learning with practical activities and the realities of social processes is based on the approach where theoretical material offered for study should be fixed in the practical field. The principle of visibility stimulates the intensification of emotional impact on students, as well as the growth in the level of educational material accessibility. Both verbal and object-based visualization are used during the study and analysis of economic phenomena. The principle of thoroughness implements a consistent progression from the acquired knowledge and skills to new ones. It helps to establish effective cause-and-effect relationships between them and systematize the known, as well as to actively use it in practice.

The principle of intensification within the framework of innovative educational technologies implements a personality-oriented approach, effective communication, and collective interaction. It stimulates the motivation of students, the use of educational and cognitive, problem-solving and creative tasks, and the use of modern information and computer technologies. The principle of interactive learning promotes cooperation, collaboration, and dialogue, often through the use of active role-playing and training tools. At the same time, students are involved in creativity for creative interaction. The application of this principle allows us to intensify the learning process and make it more effective. Finally, the principle of creative development allows for the intensification of the effectiveness of entrepreneurial thinking and promotes the adoption of non-standard solutions. It will enable students to realize self-expression during
professional activities (Skakovska & Kotyk, 2020; Dembistskaya, Kobylyansky, & Pugach, 2021; Kopniak, 2020).

It should be noted that within the framework of professional training, the level of entrepreneurial competence is significantly influenced by certain structural and functional components. Their mastery, to a large extent, identifies the competitiveness of a modern specialist (Dzwigol et al., 2020; Sinambela et al., 2020).

It is worth noting that entrepreneurial competence is inseparable from the ability to interact, communicate, and organize joint activities. Therefore, it is necessary to develop the relevant skills in future specialists. It is evident that the structure of the entrepreneurial competence notion of vocational education during crises and the instability of social processes is a dynamic phenomenon. It depends on the dynamics of socio-economic development and labor market features (Nikolova, & Cnossen, 2020).

The motivational and value component of innovative technologies for the development of entrepreneurial competence of vocational education students during societal transformation and crises provides adequate prerequisites for the implementation of other structural components. It also determines a positive attitude to the occupation, intensifies the level of awareness of the value of knowledge for personal and professional development, and is seen as an essential characteristic of readiness for professional activity.

In the structure of the entrepreneurial competence of a vocational education student, an important role is assigned to the cognitive component. This component is considered in terms of knowledge of professional terminology, principles, and concepts, accumulation of systematic professional knowledge, and interdisciplinary connections. In turn, it forms the theoretical and methodological basis for the effective professional activity of a future specialist. Cognitive intelligence is defined as the ability to set goals, teach, plan, and analyze the course of personal thinking (Hernandez-de-Menendez, Morales-Menendez, & Escobar, 2020).

The analysis of existing theoretical approaches within the framework of innovative technologies for the development of entrepreneurial competence of vocational education students during societal transformation and crises allows us to distinguish certain functional groups of methods and tools depending on the expected effectiveness. They include methodologies based on critical thinking, analytical, factual, and evaluation processes, such as brainstorming, SWOT analysis, etc. Also, the methods based on emotions, imagination (modeling, role-playing), and technologies for forming responsibility and implementing and evaluating decisions are considered effective (Reis, Fleury, & Carvalho, 2021).

The possibilities of educational process digitalization and the involvement of interactive technologies and digitalization tools allow for the intensification of the process of developing entrepreneurial competence of vocational education students. They help to adapt students to the peculiarities of professional expression and effective self-realization in the context of societal transformation and crises.

Discussions

It is necessary to take into account the research findings of scientists on key competencies in order to achieve the effectiveness of studying the potential of innovative technologies for the development of entrepreneurial competence of vocational education students during societal transformation and crises. It should be noted that the multifactorial process of developing the structure of entrepreneurial competence has led to differences in approaches to the classification of its structure.

In particular, one of the leading approaches to optimizing the process of forming entrepreneurial competence includes the concept of its identification as a systemic phenomenon. It combines professionally essential personal qualities that stimulate the proper implementation of professional functionality (Gorski et al., 2023). Some scientists consider entrepreneurial competence to be a hub of personal and professional characteristics in a creative way. Its basic components include the professional-content, professional-action, and professional-personal functionalities (Hernandez-de-Menendez, Morales-Menendez, & Escobar, 2020). Instead, representatives of another scientific school emphasize communication and integration competence in the structure of entrepreneurial competence (Abad-Segura & González-Zamar, 2021).

Some modern scholars identify among the main prerequisites for the formation and effective development of entrepreneurial competence those that characterize a person as a subject of
professional activity and reflect interaction with other people. According to scholars, these competencies are characterized by motivational and semantic relations, regulatory components, cognitive components, and experience (Silveyra, Herrero, & Pérez, 2021).

Among the modern approaches to the structure of entrepreneurial competence of vocational education applicants, there is also a component approach that identifies motivational and volitional, functional, communicative, and reflective components (Lv et al., 2021). They are integrated into one synthesized formation – the communicative and functional component of entrepreneurial competence, which is an integrative quality of the personality of a future specialist.

The research findings and the analysis of scientific approaches convincingly show that the structure of a student's entrepreneurial competence should be positioned as one of the priority formative factors in the professional competence of economists. The proposed approach to the development of entrepreneurial competence of future specialists based on the involvement of innovative technologies guarantees an appropriate prognostic level of their competitiveness and professional self-realization.

Conclusions

According to the study, the authors have identified the peculiarities of developing the entrepreneurial competence of vocational education students during societal transformation and crises. During the study, the authors have formed the conviction that the priority directions of vocational education development towards the development of entrepreneurial competence of future specialists include the integration of communication, intercultural as well as informational and digital competence, taking into account the trend of integration of the educational space into the European community. The proposed concept reflects the basic principles of modern innovative technologies for the development of entrepreneurial competence under challenging conditions of uncertainty, crisis, socio-economic phenomena, and social transformation.

It was found that the entrepreneurial competence of vocational education students is currently seen as an essential feature of a specialist's activity and its main integrative quality. This is the result of the synthesis of professional competencies and personal, professionally crucial qualities.

The obtained results of the study allowed the authors to develop a basic algorithm for the formation of the structure of entrepreneurial competence of future specialists. The proposed synergistic approach represents a system of innovative methodological approaches to professional training. The research proves that the development of entrepreneurial competence allows the implementation of the concept of optimal synchronization of resources and the effective implementation of innovative solutions. It is evident that the factor of entrepreneurial competence is closely related to personal qualities, in particular, leadership skills, conflict resistance, and the ability to make decisions under conditions of uncertainty.

Given the trend of globalization of economic processes and the intensification of social crises, a promising direction for future research on this topic is seen in advanced research on the possibilities of digitalized optimization of the professional education process in terms of developing entrepreneurial competence.

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