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Reducing assessment anxiety: A case for using revised Bloom's taxonomy in ESP

Зменшення передекзаменаційної тривоги: досвід використання таксономії Блума у викладанні англійської мови за професійним спрямуванням

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Abstract

This paper explores the benefits of incorporating the prepared speaking format into the final assessment in English for Specific Purposes, as a response to pandemic and the full-fledged war in Ukraine. The aim was to maintain students' achievements and reduce examination-related anxiety triggered by war stress. As literature review suggests, anxiety blocks cognitive process and ability to critical thinking, the development of which requires focused and sustained attention and correlation of emotions and cognition. Since the critical thinking development is one of the key competences of the XXI century, the format of the designed pre-examination tasks is based on questioning techniques with trajectory on cognitive levels of Bloom's Taxonomy, originally developed to help educators set educational objectives. In the suggested format it underwent a transformation, shifting from a teacher-centered approach to a student-centered one with the aim to enhance students' critical thinking and the ability to ask higher cognitive questions. This study was carried out through a qualitative longitudinal approach with semi-structured interviews, a survey, and observation as data collection methods. The findings demonstrated the viability and a crucial role of prepared speaking format in eliminating anxiety, by providing the

Анотація

У статті досліджуються переваги включення розробленого формату підготовленого мовлення до усної частини іспиту з дисципліни "Англійська мова професійного спрямування", у відповідь на виклики пандемії та повномасштабної війни в Україні. Мета новації полягає у збереженні рівня академічних досягнень студентів та зменшенні тривожності, пов'язаної як з іспитами, так і воєнно-політичною ситуацією в країні. Огляд літератури довів, що почуття тривоги блокує когнітивні процеси та здатність до критичного мислення, розвиток якого вимагає вміння зосереджуватися та утримувати стійку увагу, коригування емоцій і когнітивних функцій. Оскільки розвиток критичного мислення є однією з ключових компетенцій XXI століття, при розробці нового підходу ми спиралися на когнітивні рівні Таксономії Блума. Спочатку створена для допомоги вчителям визначати освітні цілі, у форматі підготовленого мовлення таксономія зазнала трансформації, змінивши спрямування від підходу, орієнтованого на вчителя, до студенто-центричного підходу, з метою покращення здібностей студентів до критичного мислення та їхньої здатності ставити запитання вищого рівня когнітивної діяльності. Це дослідження було проведено за допомогою якісного лонгітюдного підходу з напівструктурованим

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achievement-oriented strategies focusing students' attention on effective task engagement.

Key words: anxiety, Bloom's taxonomy, critical thinking, English for Specific Purposes, prepared speaking.

інтерв'ю, опитуванням і спостереженням як методами збору даних. Результати продемонстрували життєздатність і вирішальну роль підготовленого формату мовлення в усуненні тривоги, забезпечуючи орієнтовані на досягнення стратегії, що зосереджують увагу студентів на ефективному виконанні завдань, послідовність та зміст яких сприяє розвитку критичного мислення студентів.

Ключові слова: англійська мова професійного спрямування, критичне мислення, підготовлене мовлення, таксономія Блума, тривожність.

Introduction

Since the beginning of the 2020s, global pandemic and political instabilities have created extraordinary socio-economic circumstances, greatly impacting the lives of many and leading to significant changes in the field of education. Participants of the World Economic Forum 2023 unanimously expressed concerns regarding the slowdown of economic growth in the world's largest economies. COVID-19 and the war in Ukraine are considered a critical turning point that has disrupted the global economic system. Thus, the scale of the global crisis and the anticipated potential for future crises require the transformation of defensive measures into proactive, vision-oriented policies and business strategies (World Economic Forum, 2023).

The quality of higher education in today's context is closely tied to students' mastery of key competencies that facilitate the effective development of language, communication skills, and other abilities essential for the 21st century. Among these competencies, developing critical thinking skills as the highest level of cognitive activity retains its particular significance.

However, psychologists have highlighted that feelings of anxiety, arising from various circumstances and particularly exacerbated by the ongoing war, can impede an individual's capacity for effective learning in general and critical thinking in particular. Even in times of peace, anxiety has been recognized as a detrimental factor affecting decision-making abilities and hindering efficient acquisition of knowledge and development of cognitive skills (Tanveer, 2007; Woldeab & Brothen, 2019).

The move to emergency remote teaching in response to country-wide crisis, once again forced educators to consider the principles of

student autonomy and the development of critical thinking skills. Any kind of crisis in general and the war specifically brings a range of negative emotions, including anxiety and tension, fear, and despair. Therefore, the formation of appropriate learning trajectories and the development of flexible forms of assessing skills that contribute to reducing learners' feelings of anxiety are among the top priorities for educators. This is especially relevant during the examination period, when one of the stress factors that can negatively affect the psychological state and health of students is final examination, which inherently contains an element of uncertainty primarily due to the unknown outcome. Students need a sense of physical and psychological safety for learning to occur, since fear and anxiety undermine cognitive capacity and short circuit the learning process (Darling-Hammond et al., 2020).

The purpose of the article is to synthesize the findings of a three-year experience of implementing the *prepared speaking* part of the summative assessment, developed in order to enhance students' exam concentration and raise the level of their achievements via alleviating exam anxiety. Specifically, it aims to describe the format of the newly introduced *prepared speaking* format of the ESP speaking exam for the 4th-year students majoring in "Physics and Astronomy" at the Bachelor's level in Ukraine, the experience of using a set of questioning guidelines exploiting the revised Bloom's taxonomy, as well as to study the level of students' motivation to perform the *prepared speaking* task. Under this study, it is tempting to believe that the effectiveness of using Bloom's Taxonomy within a student-centered approach is as effective as using it for teachers' educational aims.

Literature review

There is already a great deal of research dwelling into different aspects of online learning. Recent studies have demonstrated that at least one-third of the students suffered from anxiety during the early stages of the Covid-19 pandemic (Deng et al., 2021; Jehi et al., 2022). Existing studies on epidemics indicate that while lockdowns and quarantines are essential, they can lead to negative psychological effects like depression and anxiety. Students, especially, have been heavily affected due to pre-existing academic and psychosocial stressors, such as assessments. Lockdowns exacerbated these challenges, intensifying mental health issues such as depression, increased anxiety, and sleep disorders. Studies on the effects of online learning on students in Ukraine confirm this trend where almost 60% of student population surveyed acknowledged having psychological problems (Krylova-Grek & Shyshkina, 2021). Studies conclude that higher education institutions should take action to ensure the safety and the physical, social, and mental wellbeing of the students (Jehi et al., 2022) and implement long-term policies and programs to target the source of the students' mental health issues. (Deng et al., 2021).

The forced shift to online learning as a result of the pandemic has eventually had a somewhat positive impact on the quality of online instruction and on the variety of digital tools aimed to facilitate the process of teaching, learning, and assessment. Latest studies suggest the growth in demand for online learning has forced institutions to invest in preparation of many more instructors to be able to teach online and facilitate the shift face-to-face dynamics to the online experience that has proved to differ significantly (Ragan et al., 2023).

In 2022, Ukrainian higher education institutions shifted from face-to-face or blended to fully remote instruction termed as emergency remote teaching to ensure their students continue to obtain the required education while being protected them from the full-fledged military invasion. Emergency remote teaching is described by Hodges et al. (2020) as a "temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances". The sudden shift to online learning, combined with lifestyle changes and uncertainties, likely heightened anxiety levels.

The issue of assessment of learning, especially when it comes to summative assessment has long

been associated with increased risk of anxiety (Birenbaum, 2007, Woldeab & Brothen, 2019). The majority of researchers concur that anxiety is an individual psychological trait, manifesting as a predisposition toward experiencing anxious states in anticipation of unfavourable outcomes. Anxiety, in psychological terms, is an emotional state arising from potential unexpected situations; both the delay or disruption of pleasant events and the anticipation of unpleasant ones (Stukalo & Simakhova, 2020). In the educational context within this socio-political landscape, the issue of assessment anxiety gains prominence as students undergo significant stress and apprehension before and during exams.

Anxiety is a powerful instrument able to block the process of cognition which is of paramount importance in the learning process. Thus, educators and scholars face the challenge of how to alleviate heightened assessment-related anxiety, organize learning and exam preparation effectively, manage learning in challenging circumstances, and enhance the development of critical thinking skills. It is noted that anxiety levels have an impact on the successful completion of tasks and hinder students' critical thinking abilities.

Based on this concerning assertion, educators need to find the ways of creating friendly examination environment that will support the effectiveness of the cognitive process and, moreover, help develop the critical thinking of students in the educational process as a whole, and specifically in foreign language learning. In the following part of the review, we are going to look critically at the role of cognition, emotional intelligence and critical thinking in learning.

Cognition. Cognitive processes deal with such functions of our brain as thinking, paying attention, processing information, and remembering things. In other words they include attention, memory, logic, reasoning, and visual and auditory processing. Attention which presents a complex construct in psychology, can be considered as one of the most influential cognitive processes that interacts with perception, memory, behavioural planning or actions, linguistic production, and spatial orientation (Zimmermann et al., 2015). Owing to attentional skills a person can select and integrate all the relevant information he/she perceives, coming from different sensory channels, and associate them with conceptually superior categories (Konrad et al., 2005). In other words, attention allows students to concentrate on a particular activity or stimulus instead of

processing everything around a person. (Cherry, 2022). In case of anxiety, it becomes quite problematic to keep attention or to be concentrated on the task being performed.

Therefore, in accordance with the purpose of this study, we are interested in focused attention and sustained attention. Focusing actively on one thing helps students avoid distraction of the stimuli caused by anxiety. Sustained attention intensifies this process prolonging the time of attention concentration on the subject matter (Cohen, 2014).

Emotional intelligence. Emotional intelligence (EI) can also be considered as significant factor influenced upon cognition process. EI is the ability to identify, understand, and use emotions positively to manage anxiety, communicate well, empathize, overcome issues, solve problems, and manage conflicts (Drigas & Papoutsis, 2018).

Researchers underline that EI is important for children because what is perceived as not interesting, without an affective value, does not become a subject of attention. (Vuontela et al., 2013). For adults, it has as much significance, according to Szczygieł & Mikołajczak (2017), as it provides a person with a better inner world to cope with the outside world. The results of studies suggest that negative mood and anticipated fear are two factors of the relationship between EI and risk-taking in decision-making processes among adults (Panno et al., 2015). Research has also shown this positive correlation between EI and cognitive processes, and this demonstrates the important role that EI plays with emotion and cognition, thus, empowering individuals and their personality and benefitting the whole society (Mayer et al., 2008).

For our study, it is important that EI engages high cognitive functions such as attention, memory, regulation, decision-making and others that empower students manage with anxiety.

Critical thinking. Previous studies confirm that critical and analytical thinking remains one of the most sought-after competences among graduates in Ukraine (Syzenko & Diachkova (2020). A plethora of distinguished scholars conducted theoretical and practical research into the phenomenon of critical thinking from psychological and pedagogical perspectives (Wood, 1991; Anderson & Krathwohl; 2001, Halpern, 2003, Temple, 2005; Butler, 2012; Wilson, 2016). Viewing critical thinking as a modern form of logical activity, many researchers associate its development with the

importance of questioning, recognizing it as a valid teaching and learning strategy (Graesser & Olde, 2003; Chin & Osborne, 2008; Jiang, 2014; Davoudi & Sadeghi, 2015). In higher education setting, critical thinking is one of the most important skills as it enables university graduates to become effective contributors in the global workforce (Liu, Frankel & Roohr, 2014; Parashchuk, 2017).

Among scholars who have laid out the foundations of the study into development of critical thinking skills, Benjamin Bloom (1956) particularly stands out due to his taxonomy that presents an organised classification comprising six cognitive levels of lower-order and higher-order cognitive categories.

An updated version of this cognitive skill hierarchy was introduced by L. Anderson, a student of the renowned B. Bloom, and D. Krathwohl, a partner during development of the original taxonomy from 1950-1970. The updated Anderson and Krathwohl's taxonomy (2001) closely resembles the original one but incorporates semantic changes: verbs replaced nouns in level names, and the names of the fifth and sixth levels underwent changes. In this study, we use this revised taxonomy with the following six levels: 1) *remember*, 2) *understand*, 3) *apply*, 4) *analyse*, 5) *evaluate*, and 6) *create*. It is believed that intellectual skills linked to memorisation, understanding, and application encompass a lower cognitive level, whereas skills involving analysis, evaluation, and the creation of new knowledge are considered higher-order cognitive skills.

It is noteworthy that originally B. Bloom developed his taxonomy not for assessment purposes but as a system to classify skills and knowledge based on learning objectives, aiding examiners in crafting assessment materials.

These days, the application of Bloom's taxonomy is mostly geared towards the continuous development of students' critical thinking skills, where adeptly crafted questions by instructors play a pivotal role, aligning with specific levels of students' cognitive engagement. Our analysis of the aforementioned studies indicates that educators are well-equipped with a methodological foundation for both valid questioning in the learning process and assessing students' overall cognitive level during examinations.

As put by McKenzie (2003), questions and questioning are critical human technologies that

empower young individuals to solve problems, make informed decisions, and excel in tests and life challenges. Researcher highlights the significance of fostering students' questioning skills. As a result, it is worth looking into how we can achieve a transition from the well-established practice of exploiting cognitive strategies, used by educators, to a more learner-centred approach, that would foster students' autonomy in posing questions and, consequently, further develop their critical thinking skills.

Despite significant contributions made into the fields covered in our literature review, new challenges call for practical changes into the assessment practices without compromising the quality of education, but at the same time providing the support required for tackling increased levels of anxiety prompted by difficult circumstances.

Methodology

The methodology used in the study is a qualitative longitudinal research approach using a case study method, with semi-structured interviews, a survey, and observation as data collection methods.

Theoretical analyses of the scientific literature on methodological, pedagogical, philosophical, and medical issues aim to define ways of alleviating anxiety in learners and opportunities to foster their critical thinking skills.

A learner-centered teaching method is used to design the procedure of the prepared speaking format with necessary guidelines for students. Shifting the focus to the learners' needs leads to active learning by doing as a group of the students majoring in Physics and Astronomy was engaged in utilizing the newly designed format. The group discussion technique was used to check the quality and number of the developed pre-examination tasks and their sequencing, deepening students' engagement in problem-solving and exploiting cognitive levels of Bloom's taxonomy. As a result, the number of pre-examination tasks was shortened from 10 to 6, the instructions became more precise. The most important issue that needed to be proved by these students was about their perception of the number of various types of questions they were requested to put up within the pre-examination tasks. As the format was approved by the students, it was suggested as a part of speaking exam called prepared speaking to all groups of 4-year students of Faculty of Physics.

A longitudinal study was implemented with the respondents – repeated 3 times – over a year-long period, using the same speaking exam format. Thus, a longitudinal survey was undertaken with 4th-year students in December 2021, 2022, and 2023 to track their satisfaction with the suggested speaking exam format and its influence upon exam preparation intensity.

To evaluate the effectiveness of the prepared speaking format in alleviating anxiety and fostering critical thinking skills, to invest in understanding students' emotions, feelings, and expectations, in 2023 a more intensive reflective approach is used. Observations, a student survey, and semi-structured interviews shed light on the current students' perceptions and attitudes towards the suggested examination approach by collecting, analyzing, and presenting feedback from them. Feedback was implemented via survey answers, email, and video format.

In this context, qualitative data with open-ended questions requires also collecting quantitative metrics with multiple choice survey, ranking the answers. Both types of data help create a rigorous picture of the outcomes and validity of the problem under consideration.

Results and discussion

At Taras Shevchenko National University of Kyiv (Ukraine), teaching foreign languages at Bachelor level at non-linguistic faculties follows a comprehensive approach based on the principles of student-centered approach and applies a mix of technologies, pedagogical methods and techniques that take into account the professional needs of future graduates and, within the Ukrainian context, the social and political conditions that impact the organisation of the educational process.

Based on the fundamental provisions of the Concept of Foreign Language Learning by Students of Non-Specialized Faculties and Institutes (Taras Shevchenko National University of Kyiv, 2020), the Common European Framework of Reference for Languages: Learning, teaching, assessment of the Council of Europe (Council of Europe, 2020), and the syllabus of the discipline 'Foreign Language (English)' within the educational-professional program Physics and Astronomy (2021), the format of the oral part of the examination was updated to increase the psychological safety of the students.

In general, the final assessment of 4th-year Bachelor students consists of written and oral parts. The oral part encompassed the traditional summative examination format: 1) introductory conversation in a teacher-student mode; 2) description of suggested images; 3) unprepared speaking on the topic of the examination card.

As political situation in the country changed dramatically because of military actions, some serious distractors interfered into the learning process. Moreover, there were some obstacles in delivering information towards the students, arising the feelings of uncertainty. So an urgent necessity to arm students with new learning tools was evident. To avoid distractors, to diminish anxiety, to concentrate their attention on the process of exam preparation encouraging their heuristic abilities leading to critical thinking, the format of oral exam was reconsidered. The revised version has two parts: unprepared speaking and prepared speaking. The term 'prepared' means the performance of a set of pre-examination tasks that must be completed by students independently and submitted for evaluation 5 days before the exam. This format is based on students' ability to work with the scientific literature autonomously, distinguish key words and formulate questions, grouped into three categories based on complexity (Bilonozhko, 2023). Firstly, students are given a list of a fairly wide range of speaking topics in physics, optics, astronomy, from which they choose a topic for prepared speaking, that interests them, and select the necessary textual material from primary sources meeting the length requirement of 600 words. In other words, students should compile the logical text using materials from textbooks, scientific articles, encyclopedias, etc. The principle of scientificity is realized through focusing on working with professional English literature to compile relevant contextual content related to the chosen topic with references to primary sources. The following criteria have been developed for evaluating the content of the text on the chosen topic: a) correspondence to the chosen topic; b) structure and coherence of the text; c) meeting the text length requirement of 600 words.

Compiling the text and finding out the key words is followed by the completion of tasks related to the prepared text: 1) translation of ten sentences with key words; 2) making up 10 general, special, alternative and tag questions; 3) asking 10 open and closed questions. All these tasks serve as a preparatory stage to the final task that involves formulating ten questions with regard to

the text at lower and higher cognitive levels: LOT – low order thinking, HOT – high order thinking, following Bloom's Taxonomy levels: remembering, understanding, applying, analyzing, synthesizing, and evaluating. Evaluation criteria for the questions tasks include: a) grammatical accuracy; b) word order in the sentence; c) use of the appropriate auxiliary verb; d) lexical correspondence; and d) use of all the suggested types of questions.

The hierarchy of the tasks' sequence is based on the philosophy 'from simple to complex' principle. Cognitive questions of the preceding level lay the groundwork for creating higher-level cognitive questions. Lower-level cognitive questions facilitate precise retrieval and processing of information. Higher-level cognitive questions serve as practical tools to encourage critical thinking and enhance cognitive skills, as they demand reasoning, analysis, synthesis, and decision-making in their responses.

Students' guidelines. Students are provided with three sets of guidelines, the relevance of which stems from several factors. They are essential due to the peculiarities of the educational process organization, influenced by external factors such as air raid alarms, disruptions in the internet connection or complete lack of internet when a person is in a shelter. As a result, during online sessions, not all the information conveyed by the instructor reaches the students. The feeling of uncertainty gives rise to anxiety. To operate effectively in such situation is the purpose of the guidelines.

The first guideline outlines students' actions during the exam preparation and exam procedure. It provides information about consultation dates and time, an algorithm for students' actions, phone numbers, email addresses, and deadlines for completing the prepared speaking tasks.

The second guideline explains the structure of the tasks, which includes a sequence of assignments that the student must complete independently within the framework of preparation for the prepared speaking part and submit to the instructor.

The third guideline pertains to the levels of Bloom's Taxonomy and examples of question templates corresponding to each level. Using this guideline, students formulate questions of both lower and higher levels of cognitive activity. It should be noted that some examples for the

guidelines were independently sourced by students from websites on their own initiative.

As it was mentioned in the Methodology section, the validity of the designed tasks for the prepared speaking part of the final exam was being checked in autumn 2021. While completing these tasks, a group of 17 students from Faculty of Physics was invited to provide feedback and discuss their progress and performance. As a result, the number of tasks was shortened to six with reformulated instructions. The text length requirement was extended from 300–400 words to 600 words as students needed more information included in their text to have the opportunity to ask questions. The aim of the next step undertaken was to check how this format

would be evaluated by other lecturers. A sample of tasks was introduced to the English teachers of Faculty of Radio Physics, Electronics and Computer Systems (FRECS) who evaluated the validity of tasks succession and attested that they would work effectively during the pre-examination and examination process.

The results of exams in 2022 and 2023 (taken by 120 and 90 students) proved the outcomes of the pilot study in 2021.

Dealing with descriptive analysis a definite number of stages of prepared speaking exam implementation has been defined. The following table brings an extra light in terms of the above mentioned aspects.

Table 1.
Stages of prepared speaking exam implementation

Nº	Stage	Faculty and form of feedback	Students' feedback
1	Piloting: Autumn 2021	17 students of Faculty of Physics. Group discussion	Expressed positive attitude to the format initiating to create the sample of the paper with the layout and the example of the performed tasks as well as the Students' guidelines on Bloom's taxonomy stems' questions. Students liked working in this format. The main advantages are the presence of a creative approach (but at the same time, the text could be used ready-made, and not composed by oneself); a wide choice of topics (students noted that they were pleased to choose a topic that is close to their scientific interests). Among the shortcomings, students indicated the small volume of the text requirements: 300-400 words: it is not enough for such a number of questions, so the questions often turned out to be similar in content.
2	ESP exam: 2021	4th year students of Faculty of Physics. Group discussion organized autonomously by the monitors of the groups. The generalized critical opinions were sent via emails.	Students expressed positive attitude to the format without any corrections. Satisfied with the requirements of 600 words-volume of the compiled text.
3	ESP exam: 2022	4th year students of Faculty of Physics (all groups), 1 group of FRECS. Very short closed questions by the examiners; random open questions because of the intensive military attacks.	Totally approved the previous format. Expressed their opinions with positive emotions. Sent their feedbacks via texting, emailing, filming. Some of the students attracted examiners attention with their deep evaluation of the impact of questioning on their cognitive process and were asked to describe their experience in the form of the written feedback.
4	ESP exam: 2023	4th year students of Faculty of Physics (all groups) and 2 groups of FRECS. Survey, semi-structured interview.	

Observations and students' feedback. Observations during the examination period of academic years 2021, 2022, and 2023 demonstrated that this format of preparation for oral examination received positive feedback from students of various language proficiency

levels. Examiners observed confidence and lexical competence in the prepared speaking part of the exam. The presence of highly emotional speech while communicating on the topic of prepared speaking is the sign of their deep tasks concentration in the pre-examination period. So

such cognitive functions as focused and sustained types of attention on the tasks have led to the improved performance, absence of anxiety.

Students reported that they were offered a sufficient number of examination topics to choose from, a well-structured and diverse set of tasks involving well-known types of questions as a prerequisite to higher cognitive questions.

In the survey of 2023, the vast majority of students (95%) mentioned improved preparation for the examination because of high level of motivation to gain better grades and clearly directed actions. Almost 70 % of students surveyed reported total concentration on the tasks, absence of stress during the preparation stage and at the examination.

In the semi-structured interviews conducted with twenty-five students, there were two main questions:

- 1) How do you find the prepared speaking format?
- 2) Which of the questions you formulated are the most interesting?

Answering the second question, 23 students out of 25 immediately mentioned HOT Questions of Analyses and Evaluation levels, two students marked open questions. Answering the first question, the respondents underlined the importance of possibility to work with the topic of their scientific interests, “feeling better prepared and more knowledgeable in the topic”, and “enjoying the preparation stage”. All the interviewees mentioned the positive impact of preparation on the development of their critical thinking, while one student reported that “thinking about the questions, I better understood the connection between the concepts of Physics, which I may not have been fully aware of before. Therefore, specifically in my case, HOT questions helped understand deeper the connection between the physical phenomena”.

Teachers' training. On the initiative of the Deputy director of the Institute of philology, one-hour workshop was designed for the Heads of Foreign languages departments of the university to promote teachers' awareness of the new format of the exam containing the prepared speaking part. The workshop comprised the following stages:

- introduction based on the importance of questioning for scientists as well as for students and teachers in the learning process;

- presentation of the principles of prepared speaking with trajectory on succession of the tasks that are based on the previous experience of the presenter;
- analysis of the sample of the prepared speaking task;
- reflection and discussion on how this approach fosters students' critical thinking skills, which was the main purpose of the workshop.

Teachers were invited to experience this format in their groups of students.

Following this experience, methodical recommendations were published, containing the needs analysis template, examples of completed students works and tables with questions stems (Bilonozhko, 2022). They will be useful both for English language instructors at higher education institutions and students.

Suggestions. As the central part of the prepared speaking exam format is Bloom's taxonomy questioning, the findings of the study have led us to the following suggestions:

1. ESP exam questions should refer to both low and high cognitive levels.
2. Similar implementation ought to be conducted on the exam format of other specialties of English for Specific Purposes.
3. The same research ought to be conducted referring to whether the teachers implement the cognitive domains of Bloom's Taxonomy in both assessing the students and teaching them independently asking questions leading to critical thinking development.
4. Similar research can be conducted on how wide the scientific culture of asking questions is, and what strategies can encourage students to ask questions of high cognitive levels as well as how teachers can also be encouraged to develop students' attitudes to asking questions.
5. Special teacher training should be conducted to raise teachers' awareness on the cognitive levels of taxonomy.

Conclusions

As a result of this study some very important conclusions have been made on the following issues:

Incorporating prepared speaking format into summative oral assessment revealed itself as an effective way of optimizing learning potential of

students because 1) each student was reached even if his location appeared to be in the remote area; 2) papers with the tasks were done strongly according to the schedule as a sign of effective self-organization; 3) the sequence of designed tasks owing to their reproducibility and replicability manifested its significance in encouraging students and pushing them to achieve impactful results, led to the successful coping with the difficulties in creating higher cognitive questions. As far as attention function is concerned, the strategy for achievement serves as a motivational factor, making this work engaging and encouraging students towards effective performance.

Observation of the emotions students revealed during semi structured interview, witnessed the highly positive perception and satisfaction with the process of exam preparation and exam itself.

Reproducibility of this format validates and verifies the robustness and reliability of the study outcomes. Moreover, this way of teaching has shown the possibility to use Bloom's taxonomy not only within the teacher-centered approach but also proved that the same questioning techniques that were developed for teachers can be exploited by students, enhancing their critical thinking.

Another research task has been put forward: to generalize the experience of bringing up the scientific personality of students developing their questioning competence at Physics faculty following the well-known Einstein's 'never stop questioning' principle.

We believe that this format of the oral examination in the context of emergency remote teaching is designed to meet the principles of scientific rigor, autonomy, academic integrity, critical thinking, and creativity that should form a solid background for the examination philosophy in higher education institutions.

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