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METHODS FOR THE FORMATION OF PROFESSIONALLY-BASED COMPETENCE USING DIGITAL TECHNOLOGIES

This scientific article is dedicated to the study and development of methods for the formation of professionally-based competence using digital technologies. The purpose of this article is to develop methods for the formation of professionally-based competence of future foreign language teachers using digital technologies and to verify its effectiveness. The scientific and practical significance of the scientific article is that the results of the study can be used in the practical work of the university and school teachers, in the system of training and refreshment training of teaching staff. Theoretical and empirical methods were used to achieve the purpose of the scientific article. An analysis of local and foreign literature on the research topic was conducted. Methods for the formation of professionally-based competence using digital technologies were developed and their effectiveness was tested. 106 students of the Ilyas Zhansugurov Zhetysu University took part in the experimental work. The results of the scientific article reveal that professionally-based competence is successfully formed through using the developed methods of using digital technologies. The value of the study is that the developed methods for the formation of professionally-based competence using digital technologies can be used in teaching professionally-based disciplines. The practical significance of the results of a scientific article is reflected in the use of research results in universities and the professional training of specialists.

Key words: professional competence, professionally-based competence, digital technologies, digital educational platforms, digital content.

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Сандық технологияларды қолдану арқылы кәсіби-негізделетін құзыреттілікті қалыптастыру әдістемесі

Бұл ғылыми мақала сандық технологияларды қолдану арқылы кәсіби-негізделетін құзыреттілікті қалыптастыру әдістемесін зерттеуге және әзірлеуге арналған. Мақаланың мақсаты – сандық технологияларды пайдалана отырып, болашақ шетел тілі мұғалімдерінің кәсіби-негізделетін құзыреттілігін қалыптастыру әдістемесін әзірлеу және оның тиімділігін тексеру. Мақаланың ғылыми және тәжірибелік маңызы зерттеу нәтижелерін жоғары оқу орындары мен мектеп мұғалімдерінің тәжірибелік жұмыстарында, педагогикалық кадрларды даярлау және олардың біліктілігін арттыру жүйесінде пайдалануға болатынында. Жұмыстың мақсатына жету үшін теориялық және эмпирикалық әдістер қолданылды. Зерттеу тақырыбы бойынша жергілікті және шетел әдебиеттеріне талдау жасалды. Сандық технологияларды қолдану арқылы кәсіби-негізделетін құзыреттілікті қалыптастыру әдістемесі әзірленді және оның тиімділігі тексерілді. Тәжірибелік-эксперименттік жұмысқа І.Жансүгіров атындағы Жетісу университетінің 106 студенті қатысты. Ғылыми мақаланың нәтижелері сандық технологияларды қолдану арқылы әзірленген әдістемені қолдана отырып, кәсіби-негізделетін құзыреттілік сәтті қалыптасатынын көрсетеді. Зерттеудің құндылығы әзірленген сандық технологияларды қолдану арқылы кәсіби-негізделетін құзыреттілікті қалыптастыру әдістемесін кәсіби-негізделген пәндерді оқыту барысында пайдалануға болатынында. Жұмыс нәтижелерінің тәжірибелік маңызы зерттеу нәтижелерін жоғары оқу орындарында және мамандарды кәсіби даярлауда пайдалана алу мүмкіндігінде.

Түйін сөздер: кәсіби құзыреттілік, кәсіби-негізделетін құзыреттілік, сандық технологиялар, сандық білім беру платформалары, сандық контент.

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Методика формирования профессионально-базируемой компетенции с использованием цифровых технологий

Статья посвящена изучению и разработке методики формирования профессионально-ориентируемой компетенции с использованием цифровых технологий. Целью статьи является разработка методики формирования профессионально-ориентируемой компетенции будущих учителей иностранного языка с использованием цифровых технологий и проверка ее эффективности. Теоретический и эмпирический методы были использованы для достижения поставленной цели. Был проведен анализ отечественной и зарубежной литературы по теме исследования. Была разработана методика формирования профессионально-базируемой компетенции с использованием цифровых технологий и проверена ее эффективность. В опытно-экспериментальной работе приняли участие 106 студентов Жетысуского университета имени И.Жансугурова. Результаты исследования показывают, что профессионально-ориентированная компетенция успешно формируется с помощью использования разработанной методики с использованием цифровых технологий. Ценность проведенного исследования заключается в том, что разработанная методика формирования профессионально-ориентированной компетенции с использованием цифровых технологий может быть использована в преподавании профессиональных дисциплин. Практическое значение итогов научной статьи отражается в использовании результатов исследования в вузах и профессиональной подготовке специалистов.

Ключевые слова: профессиональная компетенция, профессионально ориентированная компетенция, цифровые технологии, цифровые образовательные платформы, цифровой контент.

Introduction

In the modern world, digitalization has affected all areas of the economy of many countries of the world, including Kazakhstan. Especially, digitalization is being actively used in the educational domain, since it is necessary to train personnel considering the modern requirements of a digital society. To date, according to the professional standard, teacher training should be focused on the formation of professional competences. As regards professional competence in foreign language education, S.S. Kunanbayeva identifies 3 blocks of professional competences of future foreign language teachers: professionally-oriented, professionally-based and professionally-identifying blocks (Kunanbayeva, 2014: 63) [1]. A professionally-based block of competencies is formed when students study disciplines based on their profession. Thus, professionally-based competence is focused on building professional activity by studying professionally-based disciplines. This competence in foreign language education is formed in the 3rd year, at this stage students derive projects, work with professionally-oriented texts, and learn to develop teaching methods using situational and problematic tasks. Therefore, in order to form professionally based competence (PBC), it is necessary to consider

its sub-competences, such as information-analytical, discourse-professional, and situational-problem.

It is generally true that digital technologies have been effectively used in teaching many disciplines, including foreign languages. The Internet enables educators to rely on digital educational resources that contribute to the creation of digital content for teaching foreign languages. We propose to use digital educational resources and digital content in the educational foreign language process for the formation of professionally-based competence and consider the methods for its formation. However, as practice shows, this issue has not yet been sufficiently studied, which was the subject of our study. Thus, the relevance of the research topic is determined by the social order for the training of foreign language future teachers and the development of methods for the formation of PBC using digital technologies.

The purpose of our study is to develop methods for the formation of professionally-based competence of future foreign language teachers using digital technologies and to verify its effectiveness.

The theoretical significance of the study is that the theoretical provisions and conclusions obtained in the course of the study will help to make a certain contribution to methods of foreign language education in the context of its digitalization. The

results of the study can be considered a theoretical basis for further development of the problem.

The practical significance of the work is that the results of the study can be used in the practical work of the university and school teachers, in the system of training and refreshment training of teaching staff in the module of basic disciplines.

Literature review

In the era of digital society, the education system has actively begun to use digital technologies in its educational activities. It is significant that during training acquisition future school teachers are able to acquire the competencies necessary for their professional activities. In this case, we are talking about the formation of professionally based competence (PBC). In order to choose the appropriate methods for its formation it is mandatory to be familiar with all their diversity and be able to use them effectively in educational activities.

According to N.G. Kondrakhina, digital technologies provide a combination of texts, graphics and video images, speech, and musical accompaniment in digital format (Kondrakhina, 2021: 134) [2]. M.V. Bogdanova assumes that “digital technologies” in foreign language education involve the use of computers and portable electronic devices (Bogdanova, 2020: 237) [3]. A.I. Tazhigulova and E.V. Artykbayeva assume that in Kazakhstan G.K. Nurgaliyeva made a great contribution to the development of digital technologies through the development of electronic textbooks (Tazhigulova, 2019: 37) [4]. D.M. Dzhussubaliyeva is the author of scientific research on distance learning, as well as on the use of digital technologies in the educational process, including foreign language (Dzhussubaliyeva, 2021: 71) [5].

Professional competence, according to L.V. Zanina is a personal property that is closely related to the object, means, and conditions of pedagogical work and is necessary to create a productive model for the formation of the desired qualities in students (Zanina, 2003: 44) [6]. E.F. Zeyer considers professional competence as one of the main substructures of the subject of professional activity, along with the orientation of the individual, professional qualities, and professionally important psychophysiological properties (Zeyer, 2005: 24) [7]. S.S. Kunanbayeva proposes to use the concept of “professional readiness” of a specialist instead of the concept of “professional competence”, since “competence is not an educational result, but the

experience of successful intellectual and creative professional activity” (Kunanbayeva, 2010: 89) [8].

We propose to use interactive methods, the project method, the case study method, and the Internet research method for the successful formation of PBC of future foreign language teachers.

According to E.S. Polat, the interactive method refers to interacting, to being in a conversation mode, and having a dialogue with someone (Polat, 2001: 5) [9]. In other words, interactive methods are focused on a wider interaction of students not only with the teacher but also with each other. L.N. Vavilova and T.S. Panina classify interactive methods into discussions, games, and trainings (Vavilova, 2007: 34) [10]. The basis of interactive learning is a direct dialogue between student-teacher, student-student, and student-guest.

The project method is another method for the successful formation of PBC of future foreign language teachers. This method was developed by John Dewey in the early twentieth century. He claimed that the project method is based on methods of activating learning, and research methods (Dewey, 2008) [11]. E.S. Polat defines the project method as a certain set of educational and cognitive techniques and actions of trainees that enables solving a particular problem as a result of independent cognitive actions (Polat, 2010: 67) [12]. Thus, the project method is a set of research, data processing, and other activities carried out by students on their own or in small groups with the aim of practical or theoretical solutions to a significant problem.

One of the most commonly used methods in foreign language education, for the formation of PBC, is the case study method. The case study method is an active learning method that requires the active participation of the student in the classroom. According to C. Herried, a case study is a representation of a specific situation from professional or everyday life, presented through certain actions, attitudes, and opinions, on the basis of which the final decision is made (Herried, 2007: 6) [13].

We believe that the Internet research method is one of the methods for the successful formation of PBC as well. J. Krantz assumes that the Internet research method involves methods by which students can collect data and conduct research via the Internet (Krantz, 2010: 624) [14]. M. Duffy emphasizes that the Internet research method refers to research projects that search, collect and store data using the Internet (Duffy, 2002: 85) [15]. According to L. Webb the Internet research method

is based on the inquiry delivered by a researcher in the cyber space (Webb, 2017: 415)[16]. It is worth noting that many of these Internet research methods are related to already existing research methods, but are reinvented and rethought in the light of digital technologies. Online questionnaires, online interviews, online content analysis, and online focus groups are available using this method

Materials and methods

Exploring the work on the formation of professionally-based competence using digital technologies, we examined a number of works by domestic and foreign scientists. A significant contribution to the study of digital technologies was made by domestic scientists G.K. Nurgaliyeva, D.M. Dzhussubaliyeva, E.V. Artykbayeva, A.I. Tazhigulova, B.Zh. Sharipov, A.K. Mynbayeva, E.Y. Bidaibekov, A.T. Galperin, M.V. Bogdanova, N.G. Kondrakhina, G.G. Shkolnikov and others. Regarding the professional competence of a foreign language teacher, it is worth highlighting the works of S.S. Kunanbayeva, L.V. Zanina, and E. Zeyer, who considered the concepts of professional competence, professional readiness, and professionally-based competence.

While writing this scientific article, theoretical and empirical methods, Internet technologies, and resources were used. The method of literary analysis on the topic of a scientific article was used in an attempt to define the basic concepts. The concept of “Professionally-based competence” was defined and its sub-competences were presented using this method. The empirical method covers the description of the results of an experimental study and the introduction of the developed methods for the formation of professionally-based competence in practice.

Results and discussions

While using interactive methods, teachers involve students in dialogue, discussions, and debates. The teacher can use various methods of introducing a topic to the audience: describing a problematic situation, posing problematic questions, showing a video, role-playing a situation, and presenting several opinions on a problem. The discussion should include different points of view, which in the end lead to a decision. Thus, interactive methods contribute to the formation of information-analytical sub-competence of the PBC.

The use of digital technologies to form PBC of future foreign language teachers using interactive methods is very easily achieved using digital platforms such as Padlet, Google docs, Canva Jamboard and FlipGrid, etc. Let’s consider each of them.

Padlet is a platform that allows students to learn interactively by posting text, images, links, documents, videos, and voice recordings. Google Docs is a platform where students can post texts that are commented on online by students. Moreover, teachers can get feedback from students by creating assignments and exercises based on texts they read, role-plays they acted out, and project works they defended. Jamboard provides an opportunity to use brainstorming and compare phenomena. By using this platform, the teacher can upload materials to obtain student positions. The FlipGrid platform allows students to record video responses to questions or case assignments, and can also upload a finished project assignment video and comment on each other’s work. The Canva platform allows the teacher to create interactive tasks during which students can use brainstorming.

Using the project method, students develop the ability to work with information and texts, the ability to highlight the main idea, search for authentic material, analyze information, make conclusions, and the ability to work with a variety of reference materials. Thus, the conclusion to be drawn is that the use of the project method makes it possible to form an information-analytical sub-competence of PBC.

For design work, teachers can use platforms such as ThingLink, Canva, Powtoon, Google slides, Animato, and FlipGrid, which are available on the Internet and are effective in forming PBC of future foreign language teachers. The use of these platforms contributes to the formation of the PBC. Let’s consider them in more details.

The ThingLink platform is very convenient for creating design work through the use of interactive images and videos by adding tags. Tags can link to websites, social media pages, videos, maps, images, and audio. Canva is a design platform that can be used to create projects that look great and assist to teach students the basics of digital design as well. PowToon is a brand-new project creation platform that enables users to create visually stunning animated presentations. Powtoon allows users to drag and drop pre-designed images, props, and tools onto a slide, which are then automatically animated to create a stunning, professional presentation. Google

Slides – allows users to demonstrate project work in a visual form. Google Slides enable users to create and edit multimedia presentations and share them with others. The Animato platform automatically creates video clips from images, videos, and music. The main feature of this service is a combination of photos, presentations, sound, and videos. The Flipgrid platform is designed to share design work uploads in the form of videos. It allows users to save videos without relying on websites such as YouTube or AiTube to download them. At the same time, all students can see each other's work and comment on it. The teacher can comment on students' works as well.

Using the case study method requires a considerable amount of time to successfully complete the work of solving cases. The case study method is designed to solve and analyze problem situations, which include various forms of activity aimed at the formation of competences. Studying a case, students are involved in the process of analysis and communication. Moreover, the use of this method makes it possible to use a role-playing game by acting cases out. Hence, we can conclude that with the help of the case study method, information-analytical and problem-situational sub-competences of the PBC are formed. As for the use of digital technologies when using the case study method, the following platforms can be used to form PBC of future foreign language teachers: Padlet, FlipGrid, Google Slides, and PowToon.

Padlet is used to describe case scenarios by attaching texts, images, audio-video materials, and comments. FlipGrid provides the ability to post videos for cases or a video response to a case task. Google Slides and PowToon are used to defend the solution of cases with a presentation.

The Internet research method allows students to have access to materials from many different sources, such as academic publications, information sites, and authentic texts. The Internet research method provides the access to authentic texts of various levels related to professional topics. In the process of searching for material using this method, students can store and process readable authentic material. It is paramount, however, to teach students to analyze, compare and process the data received, as distorted information can be obtained on the Internet. Therefore, the analysis of data and the study of authentic materials allows students to access accurate information. In addition to texts, this method provides access to authentic audio and video materials. Students can listen to available material

by analyzing and comparing the data received. Thus, with the help of the Internet research method, the information-analytical and discourse-professional sub-competences of PBC of future foreign language teachers are formed.

The following platforms can be used while counting on the Internet research method in the formation of PBC of future foreign language teachers: Breaking News, Smithsonian Tween Tribune, Ask Ludwig, and Rewordify. All of them provide access to authentic materials that are related to the future profession.

We propose that the methods for the formation of PBC of foreign language future teachers are based on the use of 4 stages (table 1). At each stage, the methods and platforms described by us can be used in order to involve students in the educational process and form the corresponding sub-competences of PBC.

In the first stage, teachers can use the interactive method and the platforms corresponding to this method. Students perform tasks designed for the purpose of interaction between students and students, and between teachers and students. That is, there is an exchange of views and arguments in relation to a particular issue. The use of these platforms when applying this method in the cognitive-motivational stage will help to involve students in the educational process and conduct classes in an interactive mode. In the second stage, teachers can use the case-study method and the Internet research method with the appropriate platforms. Students work on cases, analyze them, and search and analyze data. With the help of these platforms in the problem-search stage, the motivation of students in the process of searching for material, in using and analyzing authentic materials will significantly increase. In the third stage, teachers can use a combination of the Internet research method and the project method. Students conduct research and analysis to create and defend project works. The use of these platforms in the information-projecting stage facilitates the process of searching, storing, and analyzing data for creating design work. In the last stage, it is proposed to use feedback, pair and group evaluation, and tests. Students receive feedback from the teacher on the work done and evaluate each other's work based on the criteria that are presented by the teacher. Finally, the teacher develops tests for students to check the acquired competencies. All of the digital platforms we have listed are used at the reflective-evaluative stage, which leads to an acceleration of the process of obtaining feedback and evaluation.

Table 1 – Stages and methods of forming PBC of foreign language future teachers

Stage name	Sub-competences of PBC	Methods	Platforms
Cognitive-motivational	Information-analytical	Interactive	Padlet, Google docs, Canva Jamboard, FlipGrid
Problem-search	Problem-situational	Case study, Internet research method	Padlet, FlipGrid, Google Slides, PowToon, Breaking News, Smithsonian Tween Tribune, Ask Ludwig, and Rewordify
Information-projecting	Discourse-professional	Internet research method, project method	ThingLink, Canva, Powtoon, Google slides, Animato. FlipGrid
Reflective-evaluative	Information-analytical	Feedback, pair and group evaluation, tests	Google docs, Google Forms, Quizlet, Quizziz, Wooclap

It is worth noting that digital technologies enable users to access data anywhere from any device. Therefore, we believe that with the help of digital platforms available through the Internet, the educational process is greatly facilitated, which contributes to the successful formation of the PBC of future foreign language teachers.

Thus, we believe that the formation of professionally-based competence will be successfully carried out with the help of the proposed methods, which consist of 4 stages, the integration of disciplines, the use of suitable methods and digital platforms aimed at forming the sub-competences of PBC of foreign language future teacher.

The developed methods for the formation of PBC were tested at Ilyas Zhansugurov Zhetysu University through the integration of professionally based disciplines “Work with a professionally-oriented text” and “Methods and technology of distance education” studied by 3rd-year students of the educational program “6B01705-Foreign language: two foreign languages. Training in these disciplines was realized using digital platforms and educational content developed by us. The integration process was carried out by creating a website in which tasks for these two disciplines were integrated with each other. The website is a digital practicum that includes developed assignments, SSW, and SGW for 15 weeks using digital platforms. Besides this, the guide for the use of educational platforms is provided in the digital practicum, so that students can use them to create their digital content. We have named this digital practicum “Professionally-based Digital Practicum”, as it is created for teaching professional-based disciplines. With the help of this practicum, we are integrating professionally based disciplines with each other (Figure 1).

The “Professionally-Based Digital Practicum” for professionally-based disciplines can be accessed at <https://sites.google.com/view/digitalcoursezhu/home6>. It consists of tasks and exercises matching the stages of the formation of PBC devoted to the development of the sub-competences of PBC and counting on the methods and digital platforms we offer. Each lesson in this practicum was created step by step in accordance with the educational requirements.

For example, the theme of the 14th week of the first discipline is “The role of a teacher in modern education”. At the first stage, in order to form an information-analytical sub-competence of PBC, the following problematic questions were asked (Figure 2):

Students then read an authentic, professional text. This task is devoted to the formation of discourse-professional sub-competences of PBC (Figure 3).

In the second stage, students, analyzing the read text, determine true and false sentences. This task facilitates to the formation of the information-analytical sub-competence of PBC (Figure 4).

Further, students search for a solution to the case and act it out. This task is aimed at the formation of a problem-situational sub-competence of PBC (Figure 5).

In the third stage, students dive into a debate on the topic using words from the read text. This task contributes to the formation of all sub-competences of PBC.

In the last stage, students write a short essay defining the role of the teacher in modern education. Finally, in the evaluation stage, they swap the written essays and check each other’s works (Figure 7).

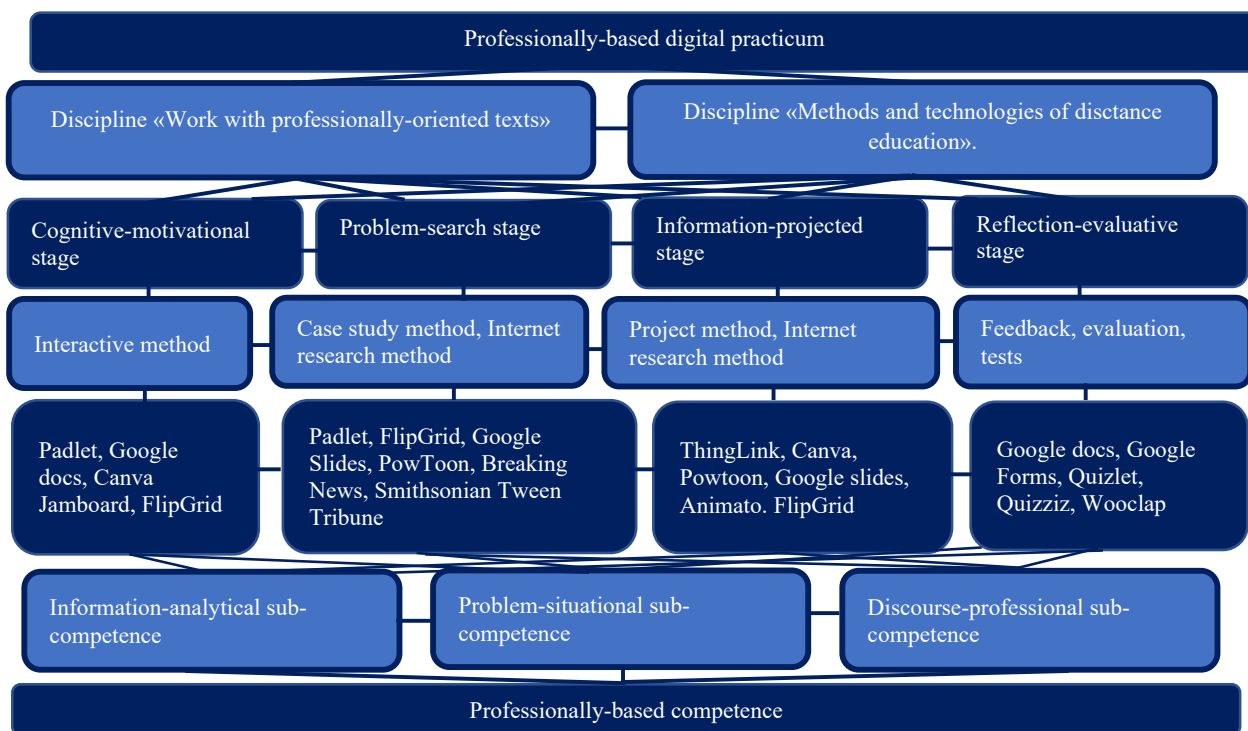


Figure 1 – The integration of professionally-based disciplines

What can teachers do to improve these situations?		
Problems	Solutions?	Your exper
Disruptive students		
Cyber-bullying		
Poor student attendance		
Class sizes too large		

1. Discuss the role of a teacher in modern education;
2. Define the problems teachers are exposed to in the modern educational system;
3. Determine the way to tackle the problems related to teachers being cyberbullied;
4. Complete the table in the document identifying the solutions to presented problems.

Figure 2 – Problem questions


Read the text and complete the tasks below

Teachers cyber-bullied by students and parents

Children as young as seven are posting abusive and damaging comments about their teachers on social networking websites such as Facebook and Twitter, according to new research. Even worse, some of the children's parents are adding their comments to what constitutes a serious escalation in the cyberbullying of educators. The British teaching union NASUWT conducted a survey of more than 7,500 teachers. It found that almost half of the teachers had reported the abuse to the school, police, or the website on which the insults were posted. Other figures show that more than 20 percent of teachers felt that they had been cyber-bullied in the past year. Three percent of the comments were from under-elevens.

The survey revealed that 64% of the comments were made by pupils, 27% by parents, and the rest a mix of both. Many of the comments related to teachers' appearance and competence. Chris Keates, NASUWT general secretary, said: "It is clear that steps need to be taken to protect teachers from the abuse of social media by pupils and parents." She added: "Teachers are often devastated by the vile nature of the abuse they are suffering. Some have lost their confidence to teach once they see foul and personal remarks made by pupils in their classes and have left the profession." Many teachers are afraid to report the abuse. They think it would lead to more trouble.


Figure 3 – Text for reading



Read the text. Define if a-h below are true (T) or false (F).

- Most students posting abuse about teachers are seven years old.
- The cyberbullying of teachers is getting worse.
- A teaching union surveyed 7,500 teachers about cyberbullying.
- A fifth of teachers reported being cyber-bullied in the past year.
- Over a quarter of abusive comments came from parents.
- A union leader said sufficient steps had been taken to protect teachers.

Figure 4 – True or False task

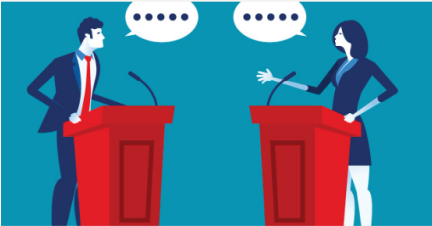


Act out these roles following the given instructions

Role A – Energy
You think energy is the most important thing for a teacher to possess. Tell the others three reasons why. Tell them things that aren't so important about their things. Also, tell the others which is the least important of these (and why): intelligence, a sense of humour or qualifications.


Role B – Intelligence
You think intelligence is the most important thing for a teacher to possess. Tell the others three reasons why. Tell them things that aren't so important about their things. Also, tell the others which is the least important of these (and why): energy, a sense of humour or qualifications.

Figure 5 – The case task



Debate


- Split into 2 groups;
- Group A strongly believes the police should find anyone who abuses teachers online;
- Group B strongly believes that is an invasion of privacy;
- Use the vocabulary from the text.



Writing

- Define the pros and cons of being a teacher;
- State if you would like to be one;

Figure 6 – The task for debates



Writing

- Define the pros and cons of being a teacher;
- State if you would like to be one;
- Support your essay with reasons and examples.

Figure 7 – The task to write an essay

Thus, by using PBDP during each lesson, the sub-competences of PBC are formed in accordance with the criteria for the formation of these sub-competences, which we propose.

1. Criteria for the formation of information-analytical sub-competence of PBC:

- Ability to understand and apply information;
- Ability to search for authentic material;
- Ability to analyze and synthesize information;
- Ability to collect, store and process information;
- Ability to evaluate information critically.

2. Criteria for the formation of discourse-professional sub-competence of PBC:

- Ability to define professional concepts;
- Ability to analyze professional texts;
- Ability to produce professional speech activity;
- Ability to integrate professional topics;
- Ability to listen and discuss professional audio materials.

3. Criteria for the formation of problem-situational sub-competence of PBC:

- Ability to understand and analyze situations and problematic tasks;
- Ability to actualize a discussion of situations and problematic tasks;
- Ability to find solutions to professional situations;
- Ability to compose situations and problematic tasks;
- Ability to solve problem tasks of professional activity.

Control (53 students) and experimental (53 students) groups took part in the experiment. In the control group (CG), lessons were conducted without the use of digital technologies, and when teaching the experimental group (EG), a digital practicum developed by us was applied. During the experiment, a test was conducted at week 15, which matched the criteria for the formation of each sub-competence of PBC (Table 2):

Table 2 – The results of the conducted experiment

The sub-competence of PBC	Levels	Control group (CG) 53 students		Experimental group (EG) 53 students	
		The number of students	% out of the whole number	The number of students	% out of the whole number
Information-analytical sub-competence	Low 0-40%	2	4%	0	0
	Average 40-80%	38	72%	35	66%
	High 80-100%	13	24%	18	34%
Problem-situational sub-competence	Low 0-40%	5	9%	1	2%
	Average 40-80%	37	70%	33	62%
	High 80-100%	11	21%	19	36%
Discourse-professional sub-competence	Low 0-40%	3	6%	0	0
	Average 40-80%	36	68%	32	60%
	High 80-100%	14	26%	21	40%

The result of the test depicts that the information-analytical sub-competence of PBC was formed at a high level in 13 students out of 53 (24%) of CG, while the same sub-competence was at a high level in 18 students out of 53 (34%) in the EG. There were 38 (72%) students in the CG and 35 (66%) students in the EG at the average level. The CG had 2 students (4%) at the low level, whilst the EG had no students of this level. Problem-situational sub-competence

was formed at a high level in 11 students from the CG (21%), at an average level in 37 (70%), and at a low level in 5 (9%) of them. While in 19 students (36%) from the EG this sub-competence was formed at a high level, in 33 (62%) at an average level, and 1 student (2%) showed a low level. As for the discourse-professional sub-competence, the CG showed 14 students (26%) at the highest level, 36 students (68%) at the average level, and 3 students

(6%) at the low level. In the EG 21 students (40%) showed the highest level, 32 (60%) of them showed an average level and there was no low level of acquisition of this sub-competence. Thus, based on the results of the test, we can conclude that the use of the proposed methods leads to a more successful formation of the PBC.

To test the effectiveness of the proposed methods for the formation of PBC using the “Professional-based digital practical “ created by us, we made a comparative analysis of the formation of PBC sub-competences among students from the CG and the EG, considering the

results of students who have reached the average and high levels (Figure 8).

According to the diagram, the formation of information-analytical sub-competence in the CG is 94%, and in EG it is 100%. Problem-situational sub-competence was formed in 90% of students from CG, and 98% of students from the EG. Regarding the discourse-professional sub-competence, this sub-competence was formed in 94% of the students from the CG and 100% of the students from the EG. HENCE, the outcomes of the analysis gave a fairly positive result, which proves the effectiveness of developed methods.

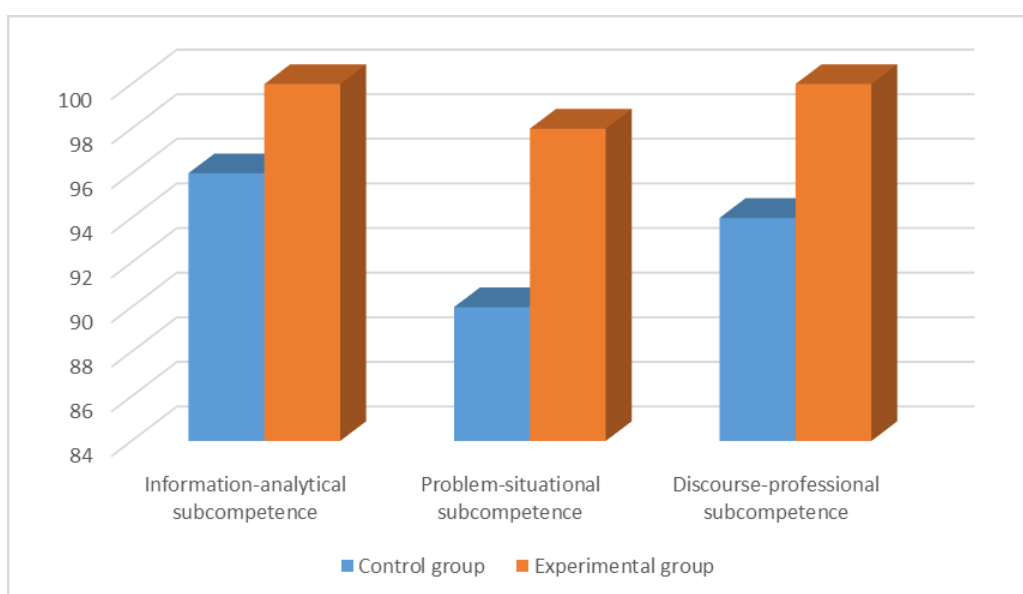


Figure 8 – The comparison of the formation of PBC of CG and EG

Conclusion

Thus, the methods for using digital technologies to form a professionally based competence of future foreign language teachers should be based on four stages. At each stage, methods such as interactive, case study, Internet research, and project methods are proposed for use. We also suggest using digital platforms to integrate the proposed methods using digital technologies. At the first, cognitive-motivational stage, we propose to use an interactive method using digital platforms such as Padlet, Google docs, Canva Jamboard, and FlipGrid. At the second, problem-search stage, we propose the use of case-study methods and Internet research by using digital platforms such as Padlet, FlipGrid, Google Slides, PowToon, Breaking News, Smithsonian

Tween Tribune, Ask Ludwig, and Rewordify. Third, the information-projected stage is the joint use of Internet research and project methods. In the last reflective-evaluative stage, we propose to use feedback, reflection-evaluating of each other, and tests to identify the formation of PBC using the digital platforms Google docs, Google Forms, Quizlet, Quizziz, and Wooclap.

We believe that the proposed methods will successfully contribute to the formation of PBC, as it is based on four stages, consisting of suitable methods and platforms. Based on the results of the experiment, we can conclude that the methods we developed contribute to the successful formation of PBC, which was confirmed by our experiment, the results of which showed that in the experimental group based on our methods, the sub-competencies

of PBC are formed in a more successful way. We are convinced that the prospects and opportunities for implementing the research results are enormous, since the use of digital technologies

is a requirement of the time, and the formation of professionally-based competence is formed in the process of studying disciplines based on the profession.

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