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Формирование иноязычных компетенций студентов с использованием мобильных приложений

Проблема и цель. Современная эпидемиологическая обстановка, формат дистанционного взаимодействия определяют важность включения цифровых технологий в обучение иностранному языку. Актуальными являются проблемы получения практики устной иноязычной коммуникации, изучения норм лексики и грамматики, механизмов словообразования. Авторы исследуют условия эффективного использования мобильных приложений для формирования иноязычных компетенций студентов при целенаправленной интеграции в образовательный процесс вуза работы с технологиями m-learning.

Методы исследования. Применены теоретический анализ и обобщение научной литературы по вопросам m-learning, проблемам обучения иностранному языку в онлайн-формате. Методология исследования основана на принципах task-based learning. Положения коммуникативно-деятельностного подхода учтены при интеграции мобильных приложений в субъектно-субъектную схему иноязычной коммуникации. Использованы эмпирические методы (тестирование, анализ результатов работы с мобильными приложениями и MS Teams). В исследовании задействованы 97 студентов первого курса Вятского государственного университета по направлению 44.03.05 Педагогическое образование с двумя профилями подготовки (уровень подготовки – бакалавриат). В эксперименте для обработки результатов применен критерий Фишера.

Результаты. Обучающиеся экспериментальной группы были вовлечены в целенаправленную когнитивную деятельность с мобильными приложениями в рамках специально разработанного модуля, групповое взаимодействие над проектом, учебную практику, профессиональную самопрезентацию и межкультурную иноязычную коммуникацию. Выявлены статистически достоверные различия между экспериментальной и контрольной группами по уровню иноязычной компетентности $\varphi_{\text{крит}} = 1,64 < \varphi_{\text{эмп}} = 2,418$.

В заключение обобщаются условия, при которых использование мобильных приложений для формирования иноязычных компетенций студентов будет максимально эффективным: целенаправленный характер работы с технологиями m-learning; коллаборация преподавателей смежных дисциплин; активное участие студентов на всех стадиях выбора и применения мобильного приложения; создание кейсов мобильных ресурсов.

Ключевые слова: цифровые технологии, мобильное обучение, дистанционное взаимодействие, профессиональная иноязычная компетентность, коммуникация, образовательная среда

Ссылка для цитирования:

Сергеева Н. А., Рябчикова В. Г., Никулина Е. Г., Рублёва О. С. Формирование иноязычных компетенций студентов с использованием мобильных приложений // Перспективы науки и образования. 2021. № 3 (51). С. 481-493. doi: 10.32744/pse.2021.3.34

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Formation of foreign language competences of students using mobile applications

The problem and the aim of the study. The modern epidemiological situations, the format of distance interaction determine the importance of including digital technologies in teaching a foreign language. The problems of obtaining the practice of oral foreign language communication, studying the norms of vocabulary, grammar and mechanisms of word formation are topical. The authors investigate the conditions for the effective use of mobile applications for formation of foreign language competences of students with purposeful integration of work using m-learning technologies into the educational process of the university.

Research methods. The theoretical analysis and generalization of scientific literature on m-learning, problems of teaching a foreign language in the online format are applied. The research methodology is based on the principles of task-based learning. The provisions of the communicative-activity approach were taken into account when integrating mobile applications into the subject-subject scheme of foreign language communication. The empirical methods were used (testing, analysis of the results of work with mobile applications and MS Teams). The study involved 97 first-year students of the training program 44.03.05 Pedagogical education, two educational program specializations (training level – bachelor's degree) of Vyatka State University. In the experiment, the Fisher criterion was used to process the results.

Results. The students of the experimental group were involved in the cognitive activity with mobile applications within the framework of the specially designed module, group interaction over a project, educational practice, professional self-presentation and intercultural foreign language communication. Statistically significant differences between the experimental and control groups in terms of the level of foreign language competence $\varphi_{\text{CRIT}} = 1.64 < \varphi_{\text{EMP}} = 2.418$ were revealed.

In conclusion the conditions under which the use of mobile applications for the formation of foreign language competences of students will be as effective as possible are summarized: the purposeful nature of work with m-learning technologies; collaboration of teachers of related disciplines; active participation of students at all stages of choosing and using a mobile application; creation of cases of mobile resources.

Keywords: digital technologies, mobile learning, distance interaction, professional foreign language competence, communication, educational environment

For Reference:

Sergeeva, N. A., Ryabchikova, V. G., Nikulina, E. G., Rubleva, O. S. (2021). Formation of foreign language competences of students using mobile applications. *Perspektivy nauki i obrazovaniya – Perspectives of Science and Education*, 51 (3), 481-493. doi: 10.32744/pse.2021.3.34

Introduction

In the modern world, taking into account globalization, the need to establish intercultural interaction with representatives of other countries is growing. In this context, the study of a foreign language is given a special place: it should be taught at all faculties and in all areas of training at a sufficiently high level. This is an important condition for graduates to have the opportunity to join the life of the international scientific community. According to O. A. Obdalova, O. V. Odegova [1], a foreign language is no longer an end in itself and can sometimes serve as a working language for seminars and lectures. In addition, a foreign language is becoming a necessary tool in the daily activities of a scientist. In-demand specialists of the future need to master all means of communication with foreign colleagues.

J. Picatoste, L. Pérez-Ortiz, S. M. Ruesga-Benito define that means of mobile technologies must be integrated into the traditional process of learning a foreign language [2]. Indeed, at present, university students are actively using various mobile applications, which have become real tools for obtaining all types of information. However, in practice, the integration of mobile applications into foreign language training is accompanied by many problems:

- how to identify and choose a mobile application that contributes to the achievement of educational goals, meets the challenges of the future, the demands of the digital society, the needs of the students themselves;
- how to use the mobile application as efficiently as possible, i.e. to shift the emphasis during integration to its didactic rather than entertainment potential;
- how to organize obligatory checking of independent work, compliance of the level of complexity of the material with the curriculum, preparation and gradual formation of self-control skills, taking into account individual characteristics of students;
- how to save the leading role of the teacher in new knowledge transfer, in upbringing of the personality, socialization and professional self-determination.

And finally, new realities of the digital society necessitate optimization of language education [3]. In the modern world, mobile applications occupy a significant place due to their unique capabilities for transferring, searching, processing information; management of information and socio-economic systems; organization of interaction. The current situation with COVID-19, the temporary transition to distant work shows their importance in various areas of life and spheres of activity, including for foreign language, intercultural communication.

So, according to P. Cabrera-Solano et al. [4] introduction of mobile learning technologies (m-learning) into the practice of language teaching promotes activation of foreign language communication, intensification, individualization and differentiation in teaching. However, K. C. Brata, A. H. Brata notes that like any means they have their advantages and disadvantages [5]. The task of the teacher is their optimal integration into the educational process and foreign language communication. Thus, there is a need for additional study of the didactic potential of mobile applications in the context of the new epidemiological situation, development of the distant form of interaction [6].

The purpose of the work is to investigate the conditions for the effective use of mobile applications for formation of foreign language competences of students with the purposeful integration of work with m-learning technologies into the educational process of the university.

Research objectives: to identify the potential of m-learning in the new epidemiological situation and distant interaction; analyze the experience of using mobile services in teaching a foreign language and highlight new promising areas; describe stages of systematic purposeful work that allows using mobile applications as efficiently as possible when forming students' professional foreign language competence. Achieving this goal and objectives becomes possible due to the involvement of teachers of related disciplines in the choice of mobile services and platforms (in particular, "Digital technologies in education", "Psychological and pedagogical theories and technologies of speech development of children", "Information technologies in the education of preschool children"), including all digital resources and files in a single MS Teams space.

Materials and methods

The research methodology takes into account the key principles of task-based learning (hereinafter – TBL). TBL is a type of communication method. The technology focuses on skills and competences. The basic principle of TBL: it is important not only what to teach, but also in what way. Completing tasks using mobile resources includes the following steps: setting a problem (tasks) – choosing a mobile application – planning activities in MS Teams – completing – reflection (assessing the solution and effectiveness of choosing the service).

The second principle is the selection of means and methods to overcome communication problems. All activities with mobile applications are subordinated to the goal of developing the skills required to master any foreign language (reading, speaking, listening and writing). The mastery of the required material in a short time and with an impressive degree of consolidation occurs due to the fact that the key expressions of a foreign language, grammatical structures, vocabulary are taught to the student using a mobile application, in a real and emotionally colored situation. Simulation of dialogues of professional communication and intercultural communication in the space of a mobile application allows students to "pass the situation through themselves", giving it a personal character. This increases the efficiency of mastering a foreign language, because along with intelligence, there is the emotional factor. The task of the teacher when integrating mobile technologies into the study of educational material is to create a situation that motivates the student to research, search for solutions to creative tasks, and practice grammatical and lexical structures in speech.

The implementation of the provisions of the system-activity approach when integrating mobile applications into teaching a foreign language is provided by the following system of didactic principles: activity, continuity, integrity, psychological comfort, variability, creativity.

The empirical methods were used (observation, analysis of the results of working with mobile applications and MS Teams) to obtain up-to-date information about changes in the level of skills that make up the essence of the professional foreign language competence. The integration of mobile applications into education was implemented when teaching the discipline "Foreign language" to students of the training program 44.03.05 Pedagogical education, two educational program specializations (training level – bachelor's degree) of Vyatka State University. A special test was developed and carried out, which includes 15 tasks. In total, 97 students took part in the experiment. The average age of the respondents was 22 (89% of girls and 11% of boys). Statistical processing of the research results was performed using the Fisher test.

Literature review

In the modern theory and practice of integrating mobile applications into education there are the following research areas: highlighting the features, principles, advantages of using m-learning technologies in the educational process of higher education; description of specific organizational forms and methods of teaching a foreign language.

M. Elphik considers possibilities of mobile technologies in terms of enhancing the creative potential of students [7]. D. D. Klementev and V.V. Klementev stipulate the expediency of using available mobile applications in education on specific examples to optimize classroom studies and independent work [8]. E. A. Komochkina and L. V. Yarotskaya substantiate the need for the introduction and use of mobile technologies in the higher education system. The authors examine in detail mobile applications for the implementation of systematic assessment and control [9].

In particular, A. Andujar, M. S. Salaberri-Ramiro, M. S. C. Martínez highlight the following goals of using digital tools for learning a foreign language: improving the quality and efficiency of assimilation of theoretical material; activating cognition and supporting professional self-determination; implementation of intersubject connections; increasing the volume and optimizing the search for necessary information; development of communication skills [3]. The work of E. V. Tikhonova, A. S. Potapova, A. V. Krayder also reveals the goals of using innovative technologies for teaching a foreign language: providing opportunities for continuous learning regardless of age, place and time; creation of a unified information and educational environment [10].

The use of m-learning technologies, as it is noted by N. S. Petrishcheva, T. G. Rybalko, allows "to actualize the knowledge that students have, to involve them in an active dialogue, to learn to express their point of view, to demonstrate their skills and develop certain skills" [11]. This circumstance is especially important for training and practice of solving future professional problems, reaching the level of professional competence. During m-learning, students learn to listen, ask questions and answer them, resolve emerging problems, regulate interpersonal conflicts, overcome barriers and, undoubtedly, enjoy the learning process [3].

The use of mobile applications, as N. N. Serostanova, E.I. Choporova justify, meets the requirements of modern education standards and, in accordance with conditions of effective organization it contributes to the activation of the didactic process [12].

Kalugina O., Tarasevich N. prove that in the system of professionally oriented foreign language education there are the following directions of development of innovative processes: movement of the education system from a closed type to an open one; from the subject-ontological model of the content of education to the epistemological one; change in the educational process of the teacher's role; increasing student autonomy; diversification of training content; strengthening interdisciplinary connections between the study of a foreign language and other disciplines; changing the nature of profilization; increasing interest in project-based and mixed learning technologies [13].

M-learning technologies significantly expand possibilities of implementing the procedure for assessing student achievement [14]. According to the communicative characteristics D. Bartosh identifies two models of interaction at the stage of systematization and control: "student-mobile application" and "student-mobile application-teacher" [15].

Another classification was proposed by N.V. Vasiliev, V.V. Grigoriev-Golubev, I.V. Evgrafov [16]. The work considers two models of using mobile applications: choose your device and bring your own device.

So, mobile technologies have a great impact on language education, as they allow to significantly expand the practice of foreign language communication with native speakers and enter into intercultural communication [17]. N. Cavus et al. substantiate that when organizing active/interactive forms of learning by means of mobile applications, the following requirements should be taken into consideration: compliance with context and realism, self-development and diversity of students' needs, activity of participants, step-by-step and controllability of the educational process [18].

G. E. Putrawan, B. Riadi investigate the potential of m-learning specifically for the modern educational space [6]. In the new sanitary and epidemiological conditions, mobile learning is characterized by the following features: interaction and joint work in the network regardless of the location of students and the teacher; using a mobile device as a source of organizational, methodological, information and educational materials; providing students with the opportunity to correct the content; researching; learning at own pace based on multimedia content on mobile devices.

O. Putistina also notes that a number of conditions must be observed: obligatory verification, independent work of students, compliance with the level of complexity of the material to the curriculum, preparation and gradual formation of self-control skills, taking into account individual characteristics of students, etc. [19].

Another important point for this research is presented in the work of D. A. Ivanchenko [20]. The scientist concludes that in a higher educational institution for effective communication and distant interaction, it is advisable to use an integral set of such mobile applications: public mobile services, mobile identification and authentication services. Thus, despite the fact that there are enough works devoted to m-learning and formation by their means of professional foreign language communication, there are two important circumstances:

- in most of them, mobile applications are used only at one stage of education (actualization, motivation, new material, consolidation / systematization, control, reflection);
- the sanitary and epidemiological situation and distant learning require a revision of the methods and forms of interaction.

Due to the fact that formation of the foreign language competence of a highly qualified and competitive specialist is a priority of the modern educational space [16], there is an objective need for additional study of the didactic potential of mobile applications in the context of the new epidemiological situation, the development of the distant interaction form.

Research program

Evaluation of effectiveness of the proposed educational and cognitive activity, supported by mobile applications, for formation of the professional foreign language competence was carried out during the pedagogical experiment. The study involved 97 first-year students of the training program 44.03.05 Pedagogical education, two educational program specializations (training level – bachelor's degree) of Vyatka State University.

At the preparatory stage of the experiment, the didactic potential of m-learning methods and means for the systematic professionally oriented teaching of a foreign language to students was studied. To assess the input conditions, materials from specially organized testing were used. For each completed of the first 10 tasks, the student could receive a maximum of 2 points. 5 points were given for each of the rest tasks.

1. The task to check understanding of the text followed by task to choose the correct answer from several proposed options. For example, read the text and choose the most suitable of the three suggested ways to complete the sentence.

2. The task to search for certain information in the text with the subsequent matching questions and passages of the text containing answers to the questions. For example, read the text and finish the sentences according to the information in the text.

3. The task to check understanding the structure of the text with the subsequent filling gaps in the text choosing from the proposed options. For example, read the text and choose one of the three suggested options that best fits in the sentence.

4. The task to fill in the gaps in the text with a choice from the proposed options. For example, read the text, paying attention to the gaps in it, and choose one of the three suggested words that suits best for each gap.

5. The task to fill in the gaps in the text without answer options. For example, read the text, paying attention to the gaps in it, and write the most appropriate word in each gap.

6. The task on word formation. For example, form verbal nouns, adjectives, and adverbs.

7. The task on the grammatical transformation of a sentence using a given word not changing the original meaning of the sentence. For example, rewrite these sentences not changing their meaning and using modal verbs.

8. The task to fill in the gaps in the text with a suitable word, number or phrase. For example, listen to the conversation between the headmaster and the parent and fill in the gaps in the sentences.

9. The task to check understanding of the text with the choice of the correct answer from the proposed ones. For example, listen to mini-dialogues and choose the most suitable answers to questions.

10. The task to match questions and speakers. For example, listen to five people's opinions about why they don't like when people around them use their mobile phones, and match the speaker to what he/she is saying.

11. The task on text on psychological and pedagogical topics reviewing (50-100 words). Read the text and answer the question: what is the main idea of the text?

12. The task on writing an essay (200-250 words). For example, write an essay on the topic Life Without TV: Pros and Cons. Indicate the advantages, disadvantages and express your own opinion.

13. Interview with the examiner about the student's scientific activity and his/her interests. Answer the examiner's questions.

14. Monologue-description of pictures on pedagogical topics. For example, describe the proposed photo, in the description it is necessary to answer the following questions. Three questions are suggested for each photo.

15. Dialogue with the examiner, discussion of the educational process shown in the picture. The examiner asks questions on the photo.

Thus, the quantity of maximum possible points was 45.

The student got the mark "passed" if he/she scored more than 25 points. In other cases, the student was considered to have failed the test. Thus, it was possible to collect data on

97 students and to form the experimental (48 students) and control (49 students) groups. The sample was not random. The experimental group included 89% of girls and 11% of boys, which is due to the specifics of training program.

The second stage of the study was devoted to identifying areas for the purposeful inclusion of work with mobile applications and devices in the educational process of the university. Here, the choice of the digital platform was made, into which it would be possible to integrate the corresponding resources; create effective conditions for the conscious active development of terminology, lexico-syntactic and grammatical features; for individual and group activities with oral and written texts, simulation of communication situations.

The third stage of the study covers experienced teaching and the use of mobile applications when training to form the professional foreign language competence of students.

Research results

In this study mobile learning is understood as learning supported by mobile devices. The didactic process, realized by means of m-learning, reveals the relationship between the cognitive activity, intercultural communication and foreign language competence [21].

The first key idea for the effective use of mobile applications when teaching a foreign language is the purposeful integration of students' work with m-learning technologies into the educational process of the university. Areas of implementation of the key idea: levelling of knowledge and skills of students in the field of using mobile applications; organization of practical activities when studying various modules (disciplines). We will reveal the features of integration based on the materials of a specially developed module "Mobile technologies: opportunities for supporting online and offline learning". The content includes groups of mobile applications that can be used to form the competences of the demanded specialists of the future: messengers, mobile versions of social networks, mobile versions of cloud services; QR code scanners, dashboards.

At the first stage the students get acquainted with distant learning platforms, their functionality and limitations. It is advisable to include the stated module in a related discipline, for example, "Digital technologies in education". It was within this module that the MS Teams platform was reasonably chosen to integrate various mobile learning resources: chat bots, calendars, Trello, Stream, OneNote Class Notebooks, MindMeister, OpenLearning, Kahoot, Nearpod, Quizlet, and Flipgrid, etc. Then educational group activities within the framework of the discipline "Foreign language" was organized. The groups were formed from students with different levels of proficiency in mobile applications. To ensure that students do not deviate from the main task of levelling knowledge and skills in the use of mobile devices for foreign language communication the groups were given a task. It consisted of two parts. The first part is obligatory. It lists the mobile applications that need to be studied and the foreign language assignments that should be completed with their help. For example, to organize a group video discussion of the situation of professional communication, consolidate grammatical skills, expand vocabulary and practice pronunciation. The second part is optional. Students choose the application themselves, which was left without attention in the main part, or explore a "new" aspect of its work. For example, planning a trip, finding an online tutor, draw up a menu, etc.

At the second stage of inclusion work with mobile applications in the educational activities of the university (and in the teaching of a foreign language) the group project

defense was organized. In particular, one of the groups made the presentation "My Holidays with Triplt". This English-language service allowed them to create a route, save information about departures, mark all the necessary places on the map and indicate upcoming meetings. There were also provided notifications about changes in flight status, maps of airports and terminals, marking of interesting places. Integration of mobile applications at the third stage was implemented in the distant learning form for a foreign language for a traditional lesson. At the stage of actualization, the Nearpod application was used, for motivation – CoachBot, when studying new material – Trello, for systematization – MindMeister, for consolidation – Quizlet.

Further mobile applications were tested on various types of educational activities in online and offline forms. The search for information in a foreign language was supported by such mobile applications as iTranslate, ABBY Lingvo, mobile versions of electronic libraries. Selection and brief summarization of sources was accompanied by work with Coursera, Google Classroom, Moodle, Stepik. Participation in webinars, courses to improve foreign language and intercultural communication skills took place using the MS Teams platform. Group discussion of the task, problem, plan, results of work is implemented through Trello, Skype, messengers.

The second key idea of the research is that the student is an active participant in the stage of making the sound choice of the mobile application to support the study of a foreign language. In other words, the result of the cognitive activity of students in the module "Mobile technologies: opportunities to support online and offline learning" should be a case of mobile applications. The purpose of the cases: firstly, students demonstrate their competence in the field of digital technologies; secondly, they prepare the basis for a model of personalized teaching of a foreign language. Further, from this case of applications students independently choose services for a particular task in conditions of the educational situation proposed by the teacher.

For example, with which mobile application to send messages and announcements to interaction participants; create test tasks/open type tasks; plan work; discuss options for solving the task; use virtual notebooks to exchange notes, materials and feedback, as well as to collect and exchange data in the process of foreign language communication.

The fourth stage of integrating mobile applications into the educational process of the university includes using the acquired knowledge during educational practice. At this stage, the student acted as a mentor, but, if necessary, could seek advice from the university teacher. Such appeals arose when representatives of educational institutions and schoolchildren's parents expressed doubts about advisability of using mobile devices in communication. However, the distant learning format removed many questions. Other difficulties were associated with organization and management of foreign language communication among participants with very different levels of training, knowledge of grammar and vocabulary. Mobile applications made it possible in a playful way to relieve emotional stress from repeated repetition of phrases, study of norms and rules, word formation mechanisms. For example, Duolingo is available on mobile devices as well. During practice in a foreign language, students used the following functionality of the application: reminders in the form of a gradation scale; special points – lingots for free additional lessons; communication in a convenient chat; sorting of material for each user.

The fifth stage of integration is self-presentation of students using mobile applications to potential employers. For this, online meetings, seminars and round tables were organized, within which students conducted master classes on the

capabilities of m-learning technology (timelines, planners, calendars, questionnaires and virtual stickers).

The students of the control group studied the topics "The profession of the teacher", "Teaching technologies", "Travelling" according to the work program of the discipline in a traditional way through a series of lectures and seminars, with the support of multimedia presentations and information resources of the Internet.

After inclusion of purposeful work with mobile applications when teaching a foreign language, one more testing was carried out. The test questions were designed in accordance with the principles described earlier. Information about the test results before and after the experiment is presented in Table 1.

Table 1

Measurement results at the beginning and end of the experiment

	Before the experiment		After the experiment	
	Control group	Experimental group	Control group	Experimental group
Proportion of students who failed the test	49% (24)	50% (24)	41% (20)	19% (9)
Proportion of students who passed the test	51% (25)	50% (24)	59% (29)	81% (39)

The verification of the reliability of the obtained results was done using the angular Fisher transformation (the Fisher criterion) with the help of the online calculator (<https://www.psychol-ok.ru/statistics/fisher/>). The critical value of the Fisher criterion for a significance level of 0.05 (ϕ_{CRIT}) is 1.64. The following hypotheses were accepted: H_0 – the level of formation of foreign language competence in the experimental group is statistically equal to the level of the control group; H_1 – the level of formation of professional foreign language competence of students in the experimental group is higher than the level of the control group. The empirical value of the Fisher criterion before the start of the experiment is 0.098 ($\phi_{\text{EMP}} = 0.098 < \phi_{\text{CRIT}} = 1.64$). Therefore, before the start of the experiment, the hypothesis H_0 is accepted. The value of the Fisher criterion after the experiment is 2.418 ($\phi_{\text{CRIT}} = 1.64 < \phi_{\text{EMP}} = 2.418$), so the hypothesis H_0 is rejected and H_1 is accepted.

Discussion

Let us formulate the conditions for the effective use of mobile applications for the formation of foreign language competences of students:

- a comprehensive study and analysis of m-learning technology to understand the essence, problems and prospects in teaching a foreign language;
- in the modern system of foreign language education it is necessary to widely use such didactic capabilities of m-learning technology as activation of cognition, personalization, intensification, adaptation to the professional aspirations of each student, interactivity, the possibility of remote interaction;
- mobile applications should be used along with traditional means of teaching a foreign language.

At the preparatory stage (before the purposeful integration of mobile applications into the educational process), it is necessary to organize consulting of students on technical

issues: the general procedure for individual and collaborative activities with mobile applications; work in MS Teams and possible network communication problems; graphical user interface and basic tools; creating a new meeting and team; regulations for working with the selected mobile application (purpose, functionality, application in theory and practice); online demonstration and oral presentation.

Further the general organizational aspects should be disclosed: goals and objectives of using mobile applications on the given topic, the role of this topic in the structure of the academic discipline, the practical significance of the applied mobile application, terms of study, forms of information interaction, options for consulting and attracting other specialists. An important aspect is the stage of organizing control and assessment. There is no quantitative assessment in the performed study. The reason for such a conscious choice is that the use of mobile applications to support the study of the discipline "Foreign language" should not distract students from the complex theoretical component of the course. In the following modules, at the stage of revision the previously studied material, a test with rating will certainly be carried out. The assessment should include checking of formation of skills in foreign language communication using mobile devices. In the course of providing theoretical information (vocabulary, grammar), electronic resources and links to sources, materials should be presented logically and consistently in accordance with the specifics of training. At the same time, the use of mobile applications in teaching a foreign language does not set the teacher the task of fundamentally changing the existing teaching technologies. Taking into account the described factors is necessary to adjust the teaching a foreign language in accordance with the spread of COVID-19 and the format of distant learning.

The obtained results expand and supplement the conclusions of D.A. Ivanchenko [20] about the potential of mobile devices for the educational space of the university. In addition, it was possible to confirm the position of the works of R. Günday, Y. T. Çamlıoğlu [17] regarding the didactic capabilities of mobile applications for teaching a foreign language.

Conclusion

During the study the following didactic capabilities of mobile applications were noted: activation of activity, cognitive interest, personalization, intercultural networking, support for scientific adaptation, professional self-determination, etc. However, the problems of mobile learning were identified: justification of the choice of a mobile application, correlating it with the didactic goals and needs of students, requests of potential employers; organization of systematic assessment and control; maintaining a balance in the principles of visibility, scientific character and accessibility.

For effective integration of mobile applications into teaching a foreign language the authors formulated key ideas: the purposeful nature of work with m-learning technologies; collaboration of teachers of related disciplines; active participation of the student at all stages of choosing and using a mobile application; creation of cases of mobile resources for educational activities, scientific and intercultural cooperation, foreign language communication, professional self-realization.

The proposed ideas were implemented at the following stages of integration: when defining the content of a specially developed module "Mobile technologies: opportunities to support online and offline learning"; in organizing group work and public defense of

projects; during the traditional classroom lesson; to apply the knowledge gained in the course of educational practice; for self-presentation of the student to potential employers.

In the experimental work communication skills, knowledge of grammar and vocabulary were developed; a comprehensive presentation of various educational material and in a different training format is organized. In other words, systematic work has been done to form professional foreign language competence by means of m-learning. As methodological recommendations for teachers planning to include the technology in the process of teaching foreign languages we note: the need to regulate the time of using mobile applications; alternation of activities, traditional methods and teaching aids with innovative; instructing students on how to work with services. Thus, it is important not only to form the professional foreign language competence. It is necessary to teach students to objectively analyze and assess information coming to them through mobile applications.

The described factors of integration of mobile applications make it possible to widely use m-learning technology in teaching a foreign language at university. This contributes to optimization of the educational process, fills it informatively, involves students in it and effectively influences professional self-realization. So, mobile applications can and should be used as an auxiliary tool for organizing foreign language communication at a qualitatively new level, online interaction. The results of the research can serve as the basis for further development of applied research in the field of formation of the foreign language competence of students by means of innovative digital technologies.

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