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Interactive tools as a motivational stimulus in preparing students for professional activities

The authors consider interactive teaching aids as a motivational stimulus in preparing students for future professional activities using the example of the electronic educational and methodological manual "Professionally oriented English. Biology". This manual was developed directly for the preparation of students of pedagogical specialties, namely students of the specialty 6B01509 — Biology, to use English in their professional activities in the conditions of modernization of education in the Republic of Kazakhstan. The relevance of the use of English in professional activities by students of pedagogical specialties is determined by the systematic transition to teaching in Kazakh, Russian, and English the subjects of the natural and mathematical cycle of general education schools. The increasing demand for the English language as a result of this, a significant expansion of the possibilities of its practical application, makes it a means of improving the professional activity of a highly qualified specialist. However, for the successful implementation of the trilingual initiative, it is important not only to target the training of students of pedagogical specialties of the university, but also to develop methodological and scientific-methodological support. In the course of the conducted pedagogical research using a combination of various incentives in various forms and methods of conducting classes that encourage students to active educational and cognitive activities, creating situations of professional foreign language communication and a positive emotional atmosphere in the preparation process, there is a positive trend in the formation of the motivational component of the readiness of students of pedagogical specialties to use English in professional activities.

Keywords: interactive tools, motivation, student training, pedagogical specialties, professional activity, modernization of education, trilingualism, methodological support.

Introduction

The idea of Kazakhstan joining the 50 most competitive countries in the world is one of the main conditions for ensuring sustainable growth of the country's economy and society. Improving the education system plays an important role in achieving this goal. The development of education should become a platform on which the future economic, political, socio-cultural prosperity of the country will be based.

The modern education system, the introduction of innovative forms and methods of teaching are placing ever higher demands on the personality and professional competence of teachers. An analysis of the current situation in the education of the Republic of Kazakhstan indicates significant positive aspects, among them: clearly defined priority areas for the development of education, an increase in the network of preschool and secondary education facilities, the presence of national and republican centers for each level of education, the compliance of the structure of Kazakhstani education with the International Standard Classification of Education, restructuring of technical and vocational education, the functioning of the National Education Quality Assessment System, high results in the international study TIMSS — 2007, entry into the European educational space [1].

However, there are a number of problems associated with both the weak material and technical, educational and methodological base, and the need to update the content and teaching methods, the insufficient quality of training of teaching staff, the lack of integration of the content of general secondary and higher education.

Kazakhstani education in the conditions of multilingualism is in search of adequate and effective measures to introduce a trilingual model of education. Kazakh scientist L. Karabassova, based on empirical data obtained in the course of experimental studies in different Kazakhstani schools, concludes that there is an insufficient clear and consistent policy of trilingual education and urges not to rush to reform education until the key points of language training of teachers and proper methodological security [2, 3]. The noted

problems are typical not only for Kazakhstani society. In Japan, they also faced a low readiness of teachers to teach in English. Japanese teachers note serious difficulties in the transition to teaching in English: the lack of specialists who speak professional English, the lack of methodological developments, and the insufficient readiness of schoolchildren to study in English [4, 5]. In China, scholars also note the discrepancy between the ideal model of integrated education and the actual teaching practice. As the reasons for this discrepancy, researchers name the lack of motivation of students, fixed curricula and programs, complex learning tasks, etc. [6, 7]. Asian and European scientists come to the same conclusions as a result of this kind of research [8, 9].

Thus, the existing problems confirm the need to modernize the education system in accordance with the requirements of the development of Kazakhstani society and the conditions for integration into the global educational space.

To date, full-scale measures are being taken in the Republic of Kazakhstan to modernize the education system, where special attention is paid to the secondary education system. As part of the introduction of the updated content of education, preparations are being made for a phased transition to teaching in three languages: Kazakh, Russian, English, and the introduction of teaching certain subjects in English.

For the successful implementation of the trilingual initiative, not only the targeted training of students of pedagogical specialties in universities is important. High-quality methodological support and stimulation of subject teachers who speak English remain relevant. Therefore, the Ministry of Education and Science of the Republic of Kazakhstan in 2017 intensified the training of teachers of subjects of the natural and mathematical cycle in English and the methodology of teaching the subject in English. Also, the development of textbooks and an educational and methodological complex for subjects of the natural and mathematical cycle in English has begun [10].

Thus, the strategic objectives of trilingual education in Kazakhstan have actualized the need to prepare students of pedagogical specialties for the use of English in their professional activities in the context of the modernization of education in the Republic of Kazakhstan.

Formulation of the problem

Our study on the formation of the motivational component of the readiness of students of pedagogical specialties to use English in their professional activities at the initial stage of experimental work shows that the majority of students have a low and medium level of motivation [11].

To determine the degree of stability of interest, the nature of the attitude and the predominance of types of motivation for the use of English in professional activities, we conducted a survey based on the methodology "Studying the motives of students' learning activities" developed by A.A. Rean and V.A. Yakunin [12] and methods for identifying types of motivation for learning a foreign language, developed by E.I. Passov, A.N. Shchukin [13]. These methods to some extent reflect all the types of motivation we have identified for educational, professional activities, interests, and attitudes to the use of English in professional activities [11].

At the formative stage of the experiment, we carried out work on the formation of students' professional interest in the use of the English language through the use of interactive methods, forms and teaching aids aimed at forming the motivational component of the studied readiness.

According to the modern trend of teaching a foreign language, interactive methods, forms and means of teaching are the most productive, which is confirmed by a number of studies.

As reported by G. Mayer, 72 hours after receiving the information, about 10 % of the information remains in the listener's memory during audio perception (heard); with visual (saw) — 20 %; with audiovisual (heard and saw) — 50 %; with audiovisual perception and discussion — 70 %; with audiovisual perception, discussion and with the possibility of practical application — 90 % [14; 123–129].

According to the results of the conducted research, we consider it necessary to note the fact that in addition to the interactive methods and forms of teaching developed and used by us in practical classes, **teaching aids** were an undoubted incentive for the formation and development of interest in learning English and its further use in professional activities.

Results and Discussion

To intensify the educational process as a means of teaching, we introduced software and methodological support for an innovative and didactic complex of a model for the formation of the readiness of students of pedagogical specialties to use English in their professional activities, which is a system in which pedagogical

ical software products are integrated: a curriculum (CU) for discipline “Professionally oriented foreign language (English)” for the specialty 6B01509 — Biology, teaching aid (TA) “Professionally oriented English. Biology” and the electronic teaching aid (ETA) “Professionally oriented English. Biology”.

Let us consider in more detail the interactive teaching aids developed by us.

The curriculum (SYLLABUS) in the discipline “Professional-oriented foreign language (English)” for the specialty 6B01509 — Biology is a document that defines the concept of the training course. The TA is developed in accordance with the model curriculum and the state compulsory standard of education. The TA allows intensifying the learning process, to get the student general information about the direction of the training course, its concept. The TA includes the following structural elements: curriculum of full-time education, curriculum of full-time abbreviated form of education with the use of DOT, data on teachers, course prerequisites, course post-requisites, a brief description of the discipline, a schedule for completing and submitting assignments for the discipline, a lecture complex (lecture abstracts), seminar plans, plans for laboratory lessons, lesson plans for independent work of students under the guidance of a teacher, lesson plans for independent work of students, topics of written work for the course, information on assessment, examination questions for the course.

Thus, the TA determines the content of students’ independent work in classroom and out-of-class time, makes it possible to activate students’ cognitive activity and ensure the interconnection of educational and research processes, and helps students to independently prepare for practical classes and exams.

Electronic teaching aid (ETA) “Professionally oriented English. Biology” showcases valuable material in English that has practical applications and is designed to develop students’ ability and skills in speaking, reading and writing in the study of professionally oriented topics.

The ETA is presented as a set of Web-documents connected by a program interface. The boot file is index.html. Navigation in the ETA is carried out by means of hyperlinks, designed in the form of main and additional sections of the material. The presentation of text and graphic material is performed by HTML code, CSS, and JavaScript. It is possible to use any browser to view the ETA. The electronic structure of the ETA is open, which allows the student to control the trajectory of the study of the material.

The main page of the ETA contains information about the manual, the content of the manual, information about the authors (Figure 1).

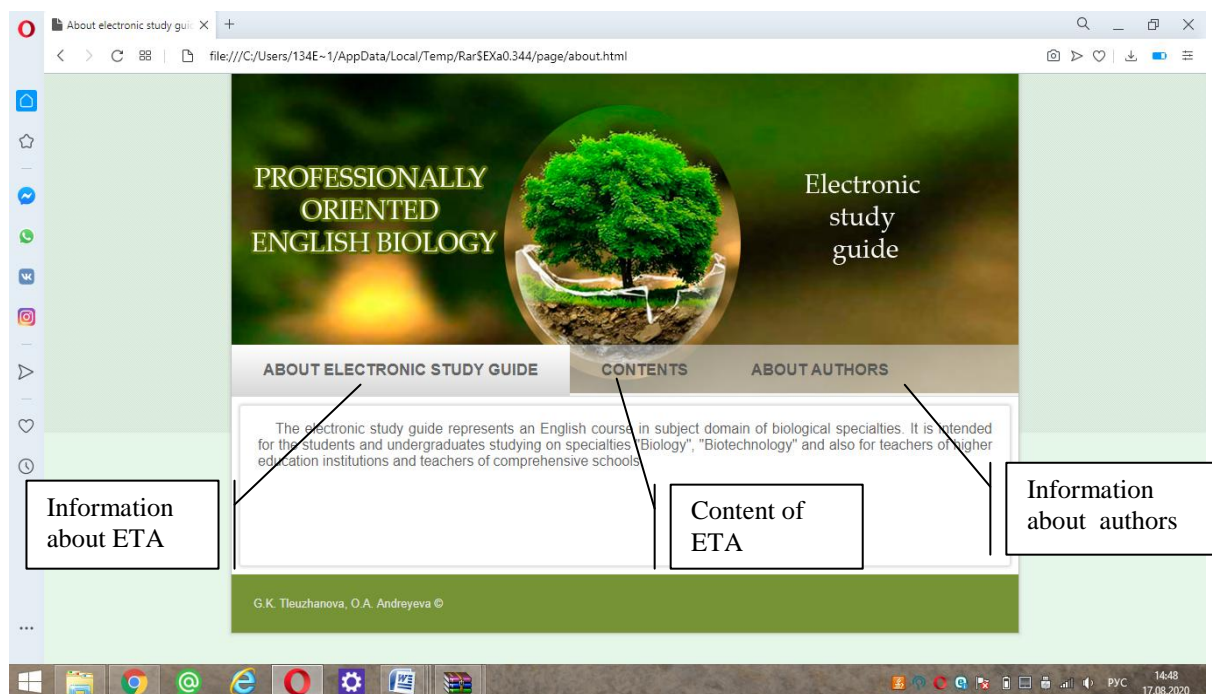


Figure 1. A fragment of the interface of the electronic teaching aid “Professionally oriented English. Biology”

The main work with ETA is in the “Contents” section, which includes introduction, 8 chapters (Introduction to Biology, Doctrine of Cell and Tissue, Anatomy and Physiology of the Human, Zoology, Bacteriology, Botany, Ecology, Genetics), glossary, test tasks. By choosing a specific topic, the student can famil-

iarize himself with the educational material (Figure 2). Illustrative material helps to percept educational material in English. To consolidate the educational material, lexical and grammatical exercises are proposed (Figure 2), aimed at developing the communication skills of students in English, combined with the deepening of biological knowledge.

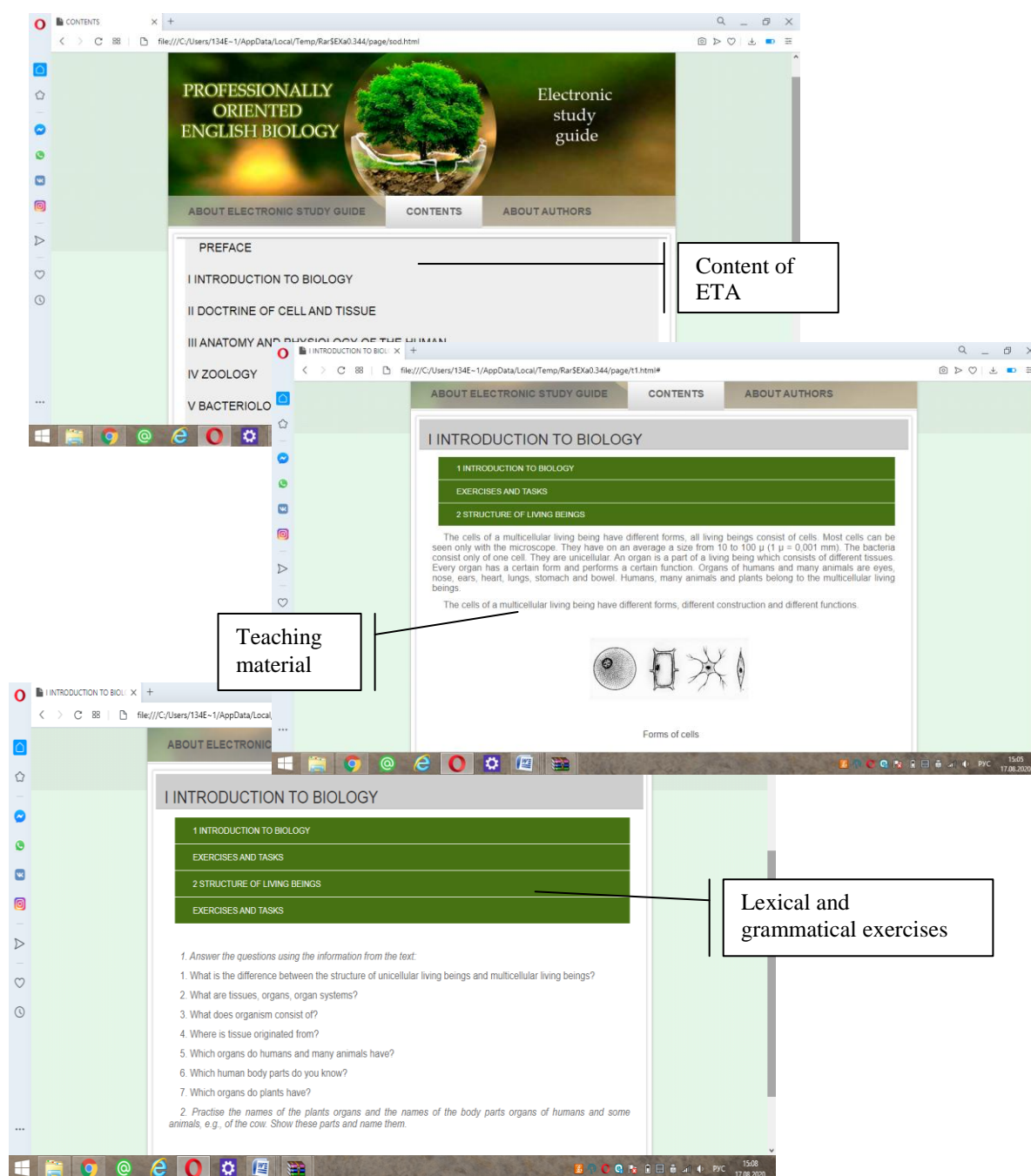


Figure 2. Fragments of the interface of the electronic teaching aid “Professionally oriented English. Biology”

A glossary in three languages (English, Russian, Kazakh) can be used by students, both in the process of studying the discipline, and for self-preparation for classes or for self-education (Figure 3).

Upon completion of the study of the entire volume of the educational material of the ETA, the student is offered test tasks (Figure 3), which will determine the level of assimilation of the educational material.

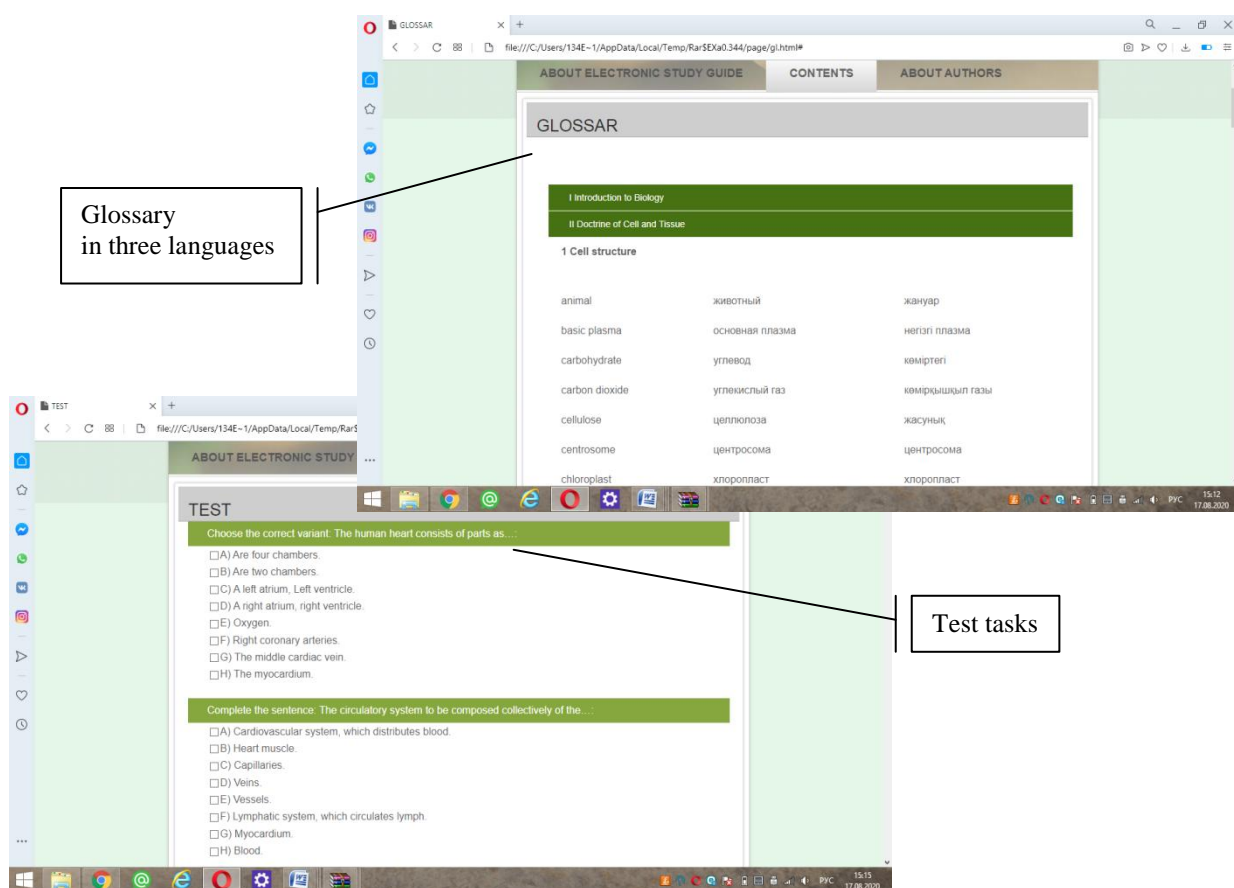


Figure 3. Fragments of the interface of the electronic teaching aid “Professionally oriented English. Biology”

Conclusions

The use of ETA in the educational process provides each student with the opportunity to learn in accordance with his individual characteristics (learning pace, level of learning, etc.).

The presented ETA can be successfully used to consolidate and expand the theoretical knowledge gained in practical classes and as part of independent work under the guidance of a teacher, which will make the classes themselves and the preparation for them more interesting and varied.

Based on the above theoretical and practical material, we consider it possible to conclude that along with the development of the above motives, we paid attention to the development of both cognitive and social motives, the incentives of which were interesting professionally oriented material, praise, encouragement, gratitude, and certification.

Summarizing the above, based on a theoretical study of incentives, the use of such a combination of them contributed to the development of communicative and pragmatic, cognitive and social motivation, professional interest of students in the use of English in the process of forming the studied readiness. This combination of various incentives that encourage students to active educational and cognitive activities; various forms and methods of conducting classes; the creation of a positive emotional atmosphere in the process of preparation and the creation of situations of professional foreign language communication contributes to the formation of a motivational component of readiness to use the English language in professional activities.

We considered the implementation of each pedagogical condition aimed at the formation of a specific component of the readiness of students of pedagogical specialties to use English in their professional activities: the first condition was aimed at the formation of the cognitive component of readiness, the second — the praxeological and the third — the motivational component. The implementation of the entire set of conditions in practical activities contributed to the successful formulation of the process of readiness of students of pedagogical specialties to use English in their professional activities, as well as its effectiveness.

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O.A. Андреева, Р. Шадиёв

Интерактивті құралдарды студенттерді кәсіби іс-әрекетке дайындауда мотивациялық ынталандыру ретінде пайдалану

Мақалада авторлар интерактивті оқыту құралын студенттерді болашақ кәсіби қызметке дайындауда мотивациялық ынталандыру ретінде өздері әзірлеген «Professionally oriented English. Biology» электронды оқу-әдістемелік құралы негізінде қарастырған. Осы оқу құралы тікелей педагогикалық мамандықтар студенттеріне, атап айтқанда 6B01509 – Биология мамандығы бойынша оқитын студенттерге Қазақстан Республикасындағы білім беруді жаңғырту жағдайында ағылшын тілін кәсіби іс-әрекеттерінде пайдалануға дайындау үшін әзірленген. Педагогикалық мамандықтар студенттерінің кәсіби іс-әрекетінде ағылшын тілін қолдануының өзектілігі жалпы білім беретін мектептердің жаратылыстану-математикалық циклінің пәндерін қазақ, орыс және ағылшын тілдерінде оқытуға жүйелі көшумен анықталады. Осының нәтижесінде ағылшын тіліне деген сұраныстың артуы, оны практикалық қолдану мүмкіндіктерінің айтарлықтай кеңеюі оны жоғары білікті маманның кәсіби қызметін жетілдіру құралына айналдырады. Дегенмен, үштілділік бастамасын ойдағыдай жүзеге асыру үшін университеттің педагогикалық мамандықтары бойынша студенттерді даярлауды мақсатты етіп қана қоймай, әдістемелік және ғылыми-әдістемелік қамтамасыз етуді дамыту маңызды. Өткізілген педагогикалық зерттеу барысында студенттерді белсенді оқу-танымдық іс-әрекетке итермелейтін сабақтарды өткізудің әртүрлі формалары мен әдістері түріндегі әртүрлі ынталандырулардың үйлесімін қолдана отырып, кәсіби шет тілдік қарым-қатынас жағдайларын және дайындық процесінде жағымды эмоционалды атмосфераны құру педагогикалық мамандықтар

студенттерінің кәсіби қызметте ағылшын тілін қолдануға дайындығының мотивациялық компонентін қалыптастыруда оң динамика байқалады.

Кілт сөздер: интерактивті құралдар, мотивация, студенттерді даярлау, педагогикалық мамандықтар, кәсіби қызмет, білім беруді жаңғырту, үштілділік, әдістемелік қамтамасыз ету.

О.А. Андреева, Р. Шадиев

Интерактивные средства как мотивационный стимул при подготовке студентов к профессиональной деятельности

В статье рассмотрены интерактивные средства обучения в качестве мотивационного стимула при подготовке студентов к будущей профессиональной деятельности на примере разработанного ими электронного учебно-методического пособия «Professionally oriented English. Biology». Данное пособие было разработано непосредственно для подготовки студентов педагогических специальностей, а именно студентов специальности 6В01509 — «Биология», к использованию английского языка в профессиональной деятельности в условиях модернизации образования Республики Казахстан. Актуальность использования английского языка в профессиональной деятельности студентами педагогических специальностей обусловливается планомерным переходом к обучению на казахском, русском и английском языках предметов естественно-математического цикла общеобразовательных школ. Повышающаяся вследствие этого востребованность английского языка, значительное расширение возможностей его практического применения делают его средством совершенствования профессиональной деятельности специалиста высокой квалификации. Однако для успешного внедрения инициативы трехязычия важна не только целевая подготовка студентов педагогических специальностей вуза, а также разработка методологического и научно-методического обеспечения. В ходе проведенного педагогического исследования с применением сочетания различных стимулов в виде разнообразных форм и методов проведения занятий, побуждающих студентов к активной учебно-познавательной деятельности, создания ситуаций профессионального иноязычного общения и положительной эмоциональной атмосферы в процессе подготовки отмечается положительная динамика при формировании мотивационного компонента готовности студентов педагогических специальностей к использованию английского языка в профессиональной деятельности.

Ключевые слова: интерактивные средства, мотивация, подготовка студентов, педагогические специальности, профессиональная деятельность, модернизация образования, трехязычие, методическое обеспечение.

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