33

IMPACT OF MULTIMEDIA TECHNOLOGY ON THE FORMATION OF FOREIGN LANGUAGE COMMUNICATIVE COMPETENCE IN STUDENTS

IMPACTO DE LA TECNOLOGÍA MULTIMEDIA EN LA FORMACIÓN DE COMPETENCIAS COMUNICATIVAS EN LENGUA EXTRANJERA EN ESTUDIANTES

Larisa Dzasezheva[1]
E-mail: dzasezheva@mail.ru
ORCID: https://orcid.org/0000-0003-1649-1900
Olga Rebro[2]
E-mail: olga_9095@mail.ru
ORCID: https://orcid.org/0000-0001-6324-7973
Inna Tikhonova[3]
E-mail: inna-rubakova@rudn.ru
ORCID: https://orcid.org/0000-0003-1509-8429
Olga Potapova[4]
E-mail: oe27@mail.ru
ORCID: https://orcid.org/0000-0002-1717-7297
Natalya Deputatova[5]
E-mail: natalizachka@mail.ru
ORCID: https://orcid.org/0000-0001-8978-3942
Nataliya Rets[2]
E-mail: n.rets@mgutm.ru
ORCID: https://orcid.org/0000-0003-0578-2227
[1]Kabardino-Balkarian State University named after H.M. Berbekov, Russian Federation.
[2]Moscow State University of Technology and Management named after K.G. Razumovsky, Russian Federation.
[3]Peoples' Friendship University of Russia, Russian Federation.
[4]Russian State Hydrometeorological University, Russian Federation.
[5]Kazan Federal University, Russian Federation.

ABSTRACT

The study demonstrates that the use of multimedia educational presentations as a type of multimedia technology significantly raises the level of foreign language communicative competence of pedagogy students. Furthermore, multimedia educational presentations have a positive influence on the development of all types of foreign language speech activities and contribute to learning motivation. The paper establishes that multimedia presentations as a means of forming the communicative competence of future teachers are efficient if their content is based on a balanced and rational combination of exercises and tasks whose materials are selected in accordance with the formulated requirements that comprehensively provide for the achievement of high levels of communicative competence by students.

Keywords:

Foreign language communicative competence, multimedia technology, pedagogy students, foreign language, multimedia educational presentations.

RESUMEN

El estudio demuestra que el uso de presentaciones educativas multimedia como un tipo de tecnología multimedia eleva significativamente el nivel de competencia comunicativa en lenguas extranjeras de los estudiantes de pedagogía. Además, las presentaciones educativas multimedia tienen una influencia positiva en el desarrollo de todo tipo de actividades del habla en lenguas extranjeras y contribuyen a la motivación para el aprendizaje. El trabajo establece que las presentaciones multimedia como medio para formar la competencia comunicativa de los futuros docentes son eficientes si su contenido se basa en una combinación equilibrada y racional de ejercicios y tareas cuyos materiales se seleccionan de acuerdo con los requisitos formulados que prevén integralmente el logro. de altos niveles de competencia comunicativa por parte de los estudiantes.

Palabras clave:

Competencia comunicativa en lengua extranjera, tecnología multimedia, estudiantes de pedagogía, lengua extranjera, presentaciones educativas multimedia.

INTRODUCTION

In current conditions, the importance of knowing foreign languages for specialists in all areas is rising every day. For this reason, a topical issue in the methodology of foreign language teaching is the search for approaches, technologies, and methods of teaching that would be conducive to the development of students' communicative competence and allow intensifying the learning process at higher education institutions. Consequently, there is a need to transition to an innovative, communicative model of teaching foreign languages and introduce multimedia technologies that contribute to the development of foreign language communicative competence (FLCC) of pedagogy students.

The modern paradigm of foreign language teaching is aimed at the organization of education that ensures the communicative nature of the process of foreign language learning. On the other hand, foreign language competence is an integral phenomenon. Thus, of special importance in its development is the formation of FLCC. Foreign language training of future teachers requires the use of new, modern means of learning, including multimedia technology, which will contribute to the modernization of the entire foreign language teaching process in higher pedagogical education.

Thus, the relevance of the present study is due to the search for new ways of organizing the process of FLCC development, since the traditional forms, methods, and tools do not fully correspond to current trends and are not always able to provide leading-edge vocational education. One such tool is the use of multimedia educational presentations (MEPs) in foreign language teaching. Such innovative methods that ensure the fulfillment of modern requirements and objectives are not yet sufficiently developed in the methodology of foreign language teaching, so their adoption in modern educational institutions is very slow.

In scientific literature, FLCC is interpreted as the ability to communicate in a foreign language in specific situations; the ability to account for contextual appropriateness and applicability of language units for cognitive and communicative functions in foreign language speech communication (Sergeeva & Bushmanova, 2011); the ability to understand and reproduce foreign language not only correctly, but also in accordance with the sociolinguistic real-life situation (Leushina, 2016); the ability to functionally master the foreign language and the ability to articulate, interpret, and discuss in communication between two or more individuals or between a person and a written or spoken text (Panfilova et al., 2015). According to Passov (2013), the

problem of FLCC is examined through the communicative approach to language learning, which focuses on the study of foreign languages through communication.

Shishigina (2020), identifies four component competences within the FLCC: grammatical competence – the level of the communicant's mastery of the grammatical code, including vocabulary, spelling, and pronunciation rules, word formation, and sentence construction; sociolinguistic competence – the ability to appropriately use and understand grammatical forms in different sociolinguistic contexts to perform certain communicative functions (description, communication, convincing, information request); discursive or statement competence – the ability to combine individual sentences into a coherent message, a discourse, using various syntactic and semantic means; strategic competence – the ability to use verbal and non-verbal means at the risk of disruption of communication in the case of insufficient competence of the communicant or because of the presence of side effects.

Safronova (2010), believes that the role of the teacher changes in the context of FLCC development. They develop communicative situations, organize topic discussions, influence the atmosphere of the class, create the conditions necessary for each student to be involved in language communication, and act as students' partner in communication. The teacher organizes the process of communication instead of requiring precise repetition of educational materials. The communicative need for speech activity creates situations in which previously learned language structures are assimilated.

Consequently, the communicative organization of foreign language learning in higher education requires three primary conditions:

1. The orientation of student training not on the acquisition of language knowledge but on the development of skills and abilities (grammatical, lexical, phonetic, speech) that ensure the ability to providing the ability to carry out foreign language speech activities in communication and the implementation of the language in communicative acts (Shchukin & Frolova, 2015).

2. The communicative nature of exercises used in the learning process for the development of speaking skills and abilities.

3. Formation of the motivational phase of activity in students – the creation of the need for foreign language speech communication.

Kostiukova & Morozova (2011), point out that the development of the corresponding level of FLCC occurs in the presence of the following didactic conditions: consideration

of students' age characteristics; teachers practicing optimal mechanisms of speech; pedagogical skills of the teacher; encouraging students to learn foreign languages; introduction of methods to intensify the learning and cognitive activities of students; providing students with methodological materials containing the necessary information for the comprehensive formation of the FLCC; the development of students' cognitive activity; effective communicative behavior of the interlocutors; modeling typical communication situations in the learning process.

As argued by Klevtsova (2004), the efficiency of MEPs in the development of the FLCC is largely contingent on the materials used and on the teacher's skills. Therefore, the organization of MEP content (both in the design phase and in the process of use) is a priority. From this follows the importance of conceptual pedagogical provisions on which the process of professional foreign-language training of future teachers with the use of MEPs is based.

In light of the above, Kotrikadze (2017), believes it expedient to apply the person-centered and communicative approaches in choosing the content of MEPs and utilizing them in foreign language training and the formation of the FLCC of pedagogy students.

In the practice of foreign language teaching with the use of MEPs, consideration of the individual characteristics of students (person-centered approach) should consist in the selection of exercises and tasks for presentations and their organization; the combined use of presentations together with traditional teaching tools; in the selection of topics, content, and distribution of functions when organizing and conducting project activities (Makhankova & Mokrushina, 2012); the selection of pairs for dialogues, the formation of small groups; the formulation of individual communicative tasks; the selection of texts for reading and audio and video materials for listening and the creation of communicative tasks for them (Kichenko, 2010); the individualization of homework; the introduction of types of work that teach pedagogy students to think, realize the purpose of their activities, exercise self-control, and assess the quality of the work performed.

The communicative orientation of the formation of FLCC with the use of MEPs dictates that their content includes authentic materials as real products of native speakers' speech activity; communicatively oriented exercises and tasks that stimulate verbal interaction (Popova, 2013); the methods and forms of work that encourage students' communication aimed at setting and solving specific learning objectives (Tantsura, 2013).

Methodologists Akhmetgareeva & Maksudova (2012), consider that the organization of foreign language training

for pedagogy students with the use of MEPs will ensure that students acquire the experience of verbal and social interaction in the learning process, in which both students and teachers are interested. This interaction will contribute to the comprehensive development of future teachers' FLCC.

Researchers also argue that the creation of MEPs is an important stage in the formation of FLCC that encourages students to communicate verbally (Loseva et al., 2015). The use of verbal speech helps the teacher to change the form of teaching from authoritarian to communicative, focused on interaction; to learn the language not analytically but critically (to form the ability to express oneself and one's thoughts through listening, reading, speaking, and writing in a foreign language); to maintain effective motivation and connection with real life for the acquisition of practical skills; to arouse interest in receiving and producing informational messages (Suvorova, 2011).

Thus, implementation of the personality-oriented and communicative approaches in teaching a foreign language to future teachers assumes the influence of these approaches on the selection of language, speech, illustrative, and informational materials for MEPs for future educators. In association with this, researchers define and substantiate a set of requirements to regulate the process of content selection for this teaching tool:

1. the MEPs including the optimal qualitative and quantitative composition of educational material that is accessible to all students, provides an opportunity to meet their communicative intentions within the topics of foreign language communication, and directs them to a justified choice of the means of mastering linguistic and speech material;

2. integrated mastery of all types of speech activity by students presupposes the need to balance the content of MEPs to ensure interconnected mastery of productive (speaking, writing) and receptive (listening, reading) speech activities by pedagogy students (Milovanova, 2012);

3. concentric presentation of training material and its situational conditionality assumes gradual enrichment of the personal communicative and learning experience of students in each topic using purposefully selected educational material in MEPs, which supplements and expands the content of the topic with new facts and language units (Milovanova, 2012);

4. professional orientation of educational material in MEPs is ensured through the use of relevant text, audio, and video materials intended to form a motivated readiness to master the foreign language, supporting interest and

a positive attitude toward the future profession (Sysoev & Evstigneev, 2014);

5. the communicative nature of educational materials in MEPs provides a focus on creating a communicative atmosphere, approximating it to the conditions of real communication, which is realized through the use of authentic non-adapted materials – the real products of the speech activity of native speakers; the use of communication-oriented exercises and tasks that encourage verbal interaction in different forms (individual, paired, group) of teaching (Sysoev & Evstigneev, 2014);

6. the personal orientation of MEP training material provides for consideration of individual characteristics and capabilities of pedagogy students through the use of multilevel training materials, elective assignments, personally meaningful and emotionally rich material, independent learning tasks, and individualization of homework, which promotes the development of the student's personality, independence, personal position in assessment, and critical thinking (Mustafin, 2011);

7. the structure of the language, speech, informational, and illustrative material in MEPs presupposes its clear separation between slides: the material should be presented in manageable portions (Mustafin, 2011).

Thus, the goal of the present study is to analyze the features of the formation of FLCC in pedagogy students using MEPs.

The objectives set to achieve the research goal are the following:

1. to identify methodological approaches to the organization of foreign language training of pedagogy students with the use of MEPs;

2. to experimentally test the efficiency of using MEPs in forming the FLCC of pedagogy students.

MATERIALS AND METHODS

To provide scientific substantiation for the efficiency of introducing MEPs in foreign language classes, the necessary conditions for experimental work were created. The efficiency of the use of MEPs in foreign language classes was tested through the methods of pedagogical observation, pedagogical experiment, assessment, and comparative characteristics of experimental results.

At the beginning of the experiment, we hypothesized that the use of MEPs would significantly increase the FLCC. In addition, we assumed that MEPs would positively affect the development of all types of foreign language speech activities and contribute to learning motivation. To test the hypothesis, throughout the 2nd semester of the academic year 2021-2022. we conducted a pedagogical experiment based on a pedagogical university. The research sample consisted of 97 pedagogy students with 51 people in the experimental groups (EG) and 46 in the control groups (CG).

In the work with EGs, the emphasis was placed on the stimulation of students' cognitive activity and their active participation and interaction in the process of learning the foreign language with the help of MEPs. At the basis of experimental training was the communicative approach, i.e. the creation of real and imaginary situations of everyday communication in lessons.

The experimental study was conducted in three stages.

The first (ascertaining) stage consisted of preliminary control, including tasks to determine the level of the FLCC.

The second (formative) stage involved the training of students in the EG with the use of MEPs and in the CG without them.

At the third (control) stage of the pedagogical experiment, the final control was administered and compared with the results of the preliminary control.

Statistical data processing was performed using Statistica 7.0 software. The reliability of indicators in the group was tested via the non-parametric Pearson's chi-squared test ($\chi 2$). Calculation of criterion values and confidence intervals was carried out with the significance level $\alpha = 0.05$.

RESULTS AND DISCUSSION

Comparative results of the FLCC level of CG and EG students according to the results of the ascertaining and control cross-sections are provided in Table 1.

Table 1. Comparative analysis of the level of FLCC in CG and EG students, %.

Cross-section	Group	Level			
		High	Sufficient	Satisfactory	Low
Ascertaining	CG	11.1	30.3	39.4	19.2
	EG	10.8	32.4	38.2	18.6
Control	CG	11.1	33.3	40.4	15.2
	change	-	+3	+1	-3
	EG	13.8	50	27.4	8.8
	change	+3	+ 17.6	-6.8	-11.8

Comparative analysis of the level of FLCC reveals that before the experimental training, most students (both in the EG and the CG) demonstrated satisfactory communication skills. As a result of the experiment, no major changes occurred in the CG (throughout the time of training). Yet in the EG, the share of students with sufficient and high mastery of the language material increased (by 20.6%). In addition, the proportion of students with a low level of FLCC development was reduced by 11.8%.

Pearson's x^2 test confirms the statistical significance of the efficiency of using MEPs in foreign language learning. The empirical value of x^2 (39.22) when comparing the EG results at the ascertaining and control stages of the experiment lies in the zone of significance (p < 0.001). This evidences that the use of MEPs in foreign language teaching has a significant effect on the increase of the FLCC level in the EG. Furthermore, the empirical x^2 (34.26) points to a statistically significant difference between the results of the EG and the CG at the control stage. No statistically significant difference is found between the level of FLCC in EG students at the ascertaining and control stages ($x^2 = 3.86$).

The experiment has established that speech material is assimilated more productively when participants in the learning process cooperate. Research findings also confirm the effectiveness of MEP in the study of foreign languages, which supports our assumption about the effectiveness of their implementation for the formation of the FLCC of future teachers. In addition, we note that the use of MEPs increases student motivation to master the material.

In light of our results, let us consider how they should be interpreted with respect to MEPs. The communicative nature of foreign language training for pedagogy students is ensured by a set of various types of acts required to achieve the goals of communication. These acts are embodied in exercises and tasks, which are a priority means of mastering the content. In our study, the purpose of exercises and tasks in the content of MEPs was for pedagogy students to master the essential learning activities designed to ensure their ability to communicate verbally and in writing in accordance with specific goals. For this reason, the formative stage of the experiment involved the selection of exercises to stimulate the communicative activity of pedagogy students. Their combinations form a hierarchy of variants, on which all types of exercises used in the educational process are based.

Proceeding from the results of previous research (Shchukin & Frolova, 2015; Shishigina, 2020) and considering the scientific and theoretical foundations of organizing the foreign language training of pedagogy students, two groups of exercises were identified in the content of MEPs: the pre-speaking and speaking (situational speaking, speech, and communicative tasks).

Research demonstrates (Kostiukova & Morozova, 2011) that pre-speaking exercises are utilized at the linguistic and cognitive stage of training to form language (lexical, grammatical, phonetic) skills. This outcome is ensured through students' performance of actions/operations with linguistic material presented outside the situation of communication and involves focusing on the form of the language unit itself. As part of our study, pre-speaking tasks were aimed at preparing future teachers to exercise speaking activities, so their use was considered appropriate at the relevant stage of work with MEPs. Pre-speaking exercises included such exercises as "Put words in the right order".

Situational speaking exercises provided in MEPs prepare pedagogy students for performing speaking activities (Makhankova & Mokrushina, 2012). Thus, these tasks assumed the translation of the acquired knowledge and skills into speaking activity for their assimilation. The goal of these exercises was for pedagogy students to perform speaking activities in situational conditions with a certain communicative task. For example, "Imagine you are a school principal.

Write a speech (your choice) on the occasion of the beginning of the school year or the prom according to the plan and guidelines provided.

Here we should note that the presence of choice in the formulation of instructions for the exercise was the implementation of the personality-oriented approach. In addition, the specifics of educational situations had a professional pedagogical orientation, the same as most of the tasks presented in MEPs, and thus provided pedagogy students with communicative and learning experience.

Speech exercises focused on the development of practical skills in using language units while perceiving or producing texts (Kostiukova & Morozova, 2011). Speech exercises were used at different stages of training depending on their purpose. For instance, "comment on the quote 'Knowledge is power'".

Aside from the above-discussed exercises, the content of MEPs also included communicative tasks. These were usually accompanied by some stimuli that served as a guide for communication (objects/phenomena, language/speech units as a means of expressing thought, drawings, photographs, etc.). This orienting basis was presented in the verbal formulation of the task, as well as in diagrams, drawings, and photos as additional means.

Some examples of communicative tasks are project and creative assignments that assume students preparing presentations. The goal of the use of communicative tasks in our study was to reveal the creative potential of pedagogy students, to demonstrate their level of speech training, and form their professional qualities and the ability to assess their work and adjust it to the given situation and their own needs.

CONCLUSIONS

The results of the experimental study indicate that the use of such a multimedia technology as MEPs significantly raises the level of the FLCC in pedagogy students. In addition, MEPs positively influence the development of all types of foreign language speech activity and promote learning motivation. That being said, multimedia presentations as a means of forming the FLCC in future teachers are efficient if their content relies on a well-balanced and rational combination of exercises and tasks whose materials are selected in accordance with the articulated requirements that comprehensively ensure that future teachers achieve a high level of FLCC.

Among the limitations of the study are the limited sampling and professional orientation of the participants in the experiment. The fact that the experiment involved only pedagogy students does not allow for assessing the efficiency of MEPs for other specialties. Prospective further research can be the in-depth study of the conditions providing effective organization of teaching foreign languages to future teachers with the use of MEPs.

REFERENCES

Akhmetgareeva, R.K., & Maksudova, E.S. (2012). *Ispolzovanie multimediinykh prezentatsii v protsesse obucheniia inostrannomu iazyku: Metodicheskie ukazaniia*. Kazan State University of Architecture and Engineering.

Kichenko, A.A. (2010). *Teaching Effectively with Multimedia Presentations: Training manual for English language teachers at non-linguistic universities*. Sholokhov Moscow State University Publishing House.

Klevtsova, N.I. (2004). *Metodiko-didakticheskie printsipy sozdaniia i ispolzovaniia multimediinykh uchebnykh prezentatsii v obuchenii inostrannomu iazyku*. (Doctoral Thesis). Kursk University.

Kostiukova, T.A., & Morozova, A.L. (2011). *Razvitie inoiazychnoi kommunikativnoi kompetentnosti studentov neiazykovykh vuzov: monografiia.* Tomsk Polytechnic University Publishing House.

Kotrikadze, E.V. (2017). O preimushchestvakh ispolzovaniia multimediinykh tekhnologii pri obuchenii inostrannomu iazyku studentov neiazykovykh vuzov. World of Science. *Pedagogy and Psychology, 5*, 2-7.

Leushina, I.V. (2016). Inoiazychnaia kommunikativnaia kompetentsiia kak priznak sformirovannosti tekhnologicheskoi kultury vypusknika tekhnicheskogo vuza. *Vestnik of Volgograd State University, 3*, 37-42.

Loseva, T.V., Kuznetsova, K.V., & Igeisinova, G.M. (2015). Ispolzovanie multimediinykh prezentatsii na urokakh angliiskogo iazyka. *Young Scientist, 24*(104), 990-992.

Makhankova, N.V., & Mokrushina, L.V. (2012). *Multimediinaia prezentatsiia v inoiazychnom obrazovanii: ucheb. Posobie.* Udmurt University Publishing House.

Milovanova, L.A. (2012). Obuchenie studentov kulture prezentatsii sredstvami predmeta "Inostrannyi iazyk". *Ivzestia of the Volgograd State Pedagogical University, 5*(69), 127-131.

Mustafin, I.I. (2011). *Pravila sozdaniia uchebnykh multimediinykh prezentatsii: metod. Rekomendatsii*. Publishing house of Kazan State University of Architecture and Engineering.

Panfilova, V.M., Panfilov, A.N., & Gazizova, A.I. (2015). Inoiazychnaia kompetentnost kak predmet issledovaniia: teoreticheskie podkhody, sushchnost, struktura i soderzhanie. *Fundamental research, 2*(14), 3164-3169.

Passov, E.I. (2013). *Kommunikativnyi metod obucheniia inoiazychnomu govoreniiu*. Prosveshchenie.

Popova, T.P. (2013). *Formirovanie inoiazychnoi kommunikativnoi kompetentsii u studentov zaochnogo otdeleniia iazykovogo vuza: monografiia*. Nizhny Novgorod.

Safronova, M.V. (2010). Formirovanie kommunikativnoi kompetentnosti v usloviiakh obucheniia vtoromu inostrannomu iazyku. *Bulletin of the Pomor University, 3*, 147-150.

Sergeeva, N.N., & Bushmanova, Iu.A. (2011). Professionalno orientirovannaia inoiazychnaia kommunikativnaia kompetentnost studenta tekhnicheskogo vuza. *Kazan Science, 8*, 241-242.

Shchukin, A.N., & Frolova, G.M. (2015). *Metodika prepodavaniia inostrannykh iazykov*. Academia Publishing Center.

Shishigina, Ia.A. (2020). Issledovanie soderzhaniia i struktury inoiazychnoi kommunikativnoi kompetentsii. *Language and Text, 7*(3), 70–78.

Suvorova, E.Iu. (2011). Multimediinye tekhnologii v protsesse obucheniia inostrannym iazykam v neiazykovom vuze. Sovremennye tendentsii v prepodavanii inostrannykh iazykov v neiazykovom vuze, 5, 143–147.

Sysoev, P.V., & Evstigneev, M.K. (2014). Kompetentnost prepodavatelia inostrannogo iazyka v oblasti ispolzovaniia informatsionnykh i kommunikatsionnykh tekhnologii. *Language and Culture, 1*(25), 160-167.

Tantsura, T.A. (2013). *Kommunikativnye neudachi v pedagogicheskom protsesse obucheniia inostrannym iazykam. Bulletin of the Moscow Region State University*. Series: Pedagogics, 3, 37-42.