

Multimedia Educational Environment as a Tool for Developing Communicative Competences in the Field of Trilingual Higher Education

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Abstract

When examining the conditions of modernity and the specifics of the formation and regulation of social relations, including educational ones, one should establish that they are completely focused on global informatisation and development. The relevance of studying the issue of communicative competence formation in a multimedia educational environment is quite high today, as it meets the challenges of modern society. The purpose of this study is to analyse the process of development and consolidation of communicative competence in the context of trilingual higher education, by using the basics and advantages of multimedia educational environment. The research adopted a functional and systematic methodological approach to examine the role of multimedia educational environments in trilingual higher education communicative competence, progressing through three detailed stages and drawing from a comprehensive literature review sourced from databases like Google Scholar and Scopus. Key methodologies included analysis, synthesis, and comparison, with findings divided into theoretical and practical insights, culminating in conclusions and future research directions. Accordingly, the main general theoretical issues and concepts are revealed in the theoretical part and their specific features are established. The practical part concretises the above-mentioned aspects, according to the purpose of the study. The practical value of this study lies in the fact that it can be used both in the context of methodological material, for curriculum development, and as a primary source for scientific work.

Keywords: multimedia educational environment, communicative competences, trilingual education, higher education, language proficiency, technology in education, multilingualism, instructional tools

1. Introduction

Over the last decade, there has been a growing public interest in exploring the specifics of globalisation processes. They are dynamically changing the established foundations of a number of social spheres, including education. Currently, the modernised world is a cooperation of a complex and multifaceted set of relationships between different social and cultural groups of individuals. It is worth noting that the phenomenon of global digitalisation is reflected in the resolution of social relations in areas such as political, economic and cultural. At the same time, this process is being driven entirely by the spread of the global Internet. It can certainly be called an "integrated revolution", which represents a dynamic transition of society to a new era of life activity. Given this condition, modern life in society depends on its access to the Internet. It will enable citizens to organise and manage both their personal life and the realisation of professional activities (Tuleubayeva et al., 2021). Nevertheless, the above conditions are also characteristic of Kazakhstan, as it is currently dominated by the integrated approach of introducing and enforcing general digitalisation. In the educational sphere it is revealed as the formation of a multimedia educational environment, involving a large number of special innovative tools, and mechanisms based on the use of the Internet (Bidaibekov et al., 2016). For the time being, Kazakhstan's education policy is dominated by the implementation of a complete reform of the approaches and basic tools responsible for the organisation of the learning process, especially in higher education institutions. As a result, increased competitiveness and mobility of professionals in the labour market, along with their preparedness for life and implementation of professional activities in the context of globalisation and even economic integration, caused by digitalisation, are expected (Koshkimbaevna et al., 2021).

Specialist mobility is becoming an increasingly popular characteristic in the labour market. In this context, it is therefore a matter of students learning and using more than one language. One of the main development areas of the educational environment in Kazakhstan at the moment is the introduction of multilingualism, which is revealed in the form of trilingual higher education. This multiculturalism provokes the modernisation of the learning process, as it improves it to meet the challenges of the present (Zhampeisova et al., 2018). This phenomenon is particularly dynamic in the context of its implementation in a multimedia educational environment. This process results in the multidimensional development of students as they form their identity as multicultural, i.e. multilingual. This in turn gives them the opportunity to process information in a foreign language in a qualitative manner and to communicate with others during intercultural communication (Tleuzhanova et al., 2020; Serdiuk, 2023). Based on this, one can establish that an innovative educational

environment is indeed an effective means for shaping communicative competence. Furthermore, when the educational process is organised in the form of trilingual education, there is an effective impact on the person receiving the education. During vocational education and training, the future specialist, through his or her proficiency in several foreign languages, has the opportunity not only to develop his or her own memory, but also professional acumen, analytical and critical thinking, and most importantly to communicate with others in a qualitative way (Baiseitova et al., 2020; Duisebayeva and Imasheva, 2022).

The main purpose of this study is to establish the main advantages of a multimedia environment as an effective tool for implementing the process of communicative competence formation in the conditions of trilingual higher education. Consequently, to achieve it, a number of tasks were carried out, namely: disclosing general theoretical concepts, defining their features and characteristics, establishing the relationship between them, considering the dependence of communicative competence on trilingual higher education; examining the impact of multimedia educational environment on the formation of communicative competence.

2. Literature Review

With the rise of globalization and the increased importance of intercultural communication, trilingual education has garnered considerable attention. The infusion of multimedia educational tools in this context promises enhanced communicative competences among students. Before diving into multimedia, it is essential to understand the background of trilingual education. In their comprehensive work, C. Hoffmann & A. Stavans (2007). traced the evolution of trilingual education, underscoring its relevance in contemporary higher education. They highlighted the cognitive and societal benefits of acquiring three languages, emphasizing enhanced employability and cultural appreciation (Abudaqa et al., 2019).

Communicative competencies aren't just about linguistic proficiency; they encompass pragmatic and intercultural aspects of communication (Rashidova, 2023). In a trilingual setting, this complexity is heightened, as students must navigate nuanced socio-cultural terrains across three languages. The rise of digital tools in education has been unprecedented. According to S. Malik, & A. Agarwal (2012), multimedia platforms, with their mix of visual, auditory, and textual content, cater to diverse learning styles, thereby promoting better retention and understanding.

Focusing on language learning, W. Tsou et al. (2006). established that multimedia tools, including audiovisual aids and interactive platforms, significantly enhance language acquisition. The dynamic nature of these tools aids in contextual learning, making the language 'come alive' for learners. Zooming into trilingual education, the landscape becomes even more intriguing. L. Zhang (2021). conducted a study in a trilingual university, revealing that multimedia tools greatly assisted in bridging the cultural gaps between languages. Through multimedia platforms, students were exposed to authentic cultural contexts, enhancing their communicative competences. However, the journey isn't without challenges. Some critiques, like those presented by N.Murray et al. (2016)., point to potential over-reliance on technology, fearing a compromise in the depth of linguistic immersion. Others have noted accessibility concerns, where students without advanced technological resources may find themselves at a disadvantage (Penuel et al., 2000).

The fusion of multimedia educational environments in trilingual higher education presents a promising frontier. While the advantages are numerous, from enhanced retention to enriched cultural immersion, educators must be wary of potential pitfalls, ensuring equitable access and maintaining the richness of linguistic experiences.

3. Materials and Methods

The issue under study is undoubtedly quite complex and multidimensional, due to the number of its structural elements. Accordingly, a broad methodological toolkit needs to be applied to familiarise oneself with each of them at the proper level. First and foremost, one should note the functional methodological approach, as its role is clearly pioneering for this study. This is conditioned by the fact that it has been used to define the main organisational aspects of this study. The functional approach has accordingly shaped the purpose and objectives of the study and developed a plan for their implementation. The entire research process was divided into three stages, which in turn allowed each stage to be considered in detail. The systematic methodological approach is no less of a priority for this study because, unlike the previous one, its role was responsible for constructing the internal structure of the study. Accordingly, all the methods and tools were closely interlinked. This, in turn, enabled the whole process of studying the subject to be made coherent and holistic. Furthermore, a systematic approach was used to clearly define the sequence of stages in the work, so that each stage is complementary to the previous one.

The general logical methods were also effectively applied in this study. The method of analysis and synthesis needs to be emphasised. To a greater extent, these tools were responsible for the initial stage of the study, as they allowed to define its main theoretical aspects. Through analysis, the overall issue under study has been divided into several structural elements, such as the concept, multimedia educational environment, communicative competence, trilingual higher education. Furthermore, not only their theoretical meaning was considered, but also the main features and attributes that revealed their peculiarities were established. The synthesis, on the contrary, combined all the separate concepts, enabling the identification of the links between them. Notably, in the process of cooperating these elements, their dependence on each other was also identified, resulting in the formation of the object of the study. Another aspect to be considered is the comparison method, as it was used to compare the multimedia educational environment with the traditional one. The advantages of the former have also been established and its role as a priority tool during the formation of communicative competence in the field of trilingual higher education has been defined. Moreover, the categories of multimedia environment and trilingual higher education were compared.

The study was carried out in three stages. The first stage established the basic organisational framework, including the purpose and objectives in the study, and determined the course of the work. In addition, a theoretical analysis of the issue under study was started. The second stage examined the specific principles that underpin the process of building communicative competence in trilingual higher education, based on a multimedia educational environment. The third stage involved examining the findings, dividing them into theoretical and practical ones. Furthermore, concise conclusions were drawn based on them, and promising directions for future studies were identified.

The following works on the topic were examined and analyzed in detail: A. Abylkassymova (2020), E.X. Axmadaliyevich & I.I.M. Qizi (2022), M.S. Suyunovna (2020), G.K. Tleuzhanova et al. (2020), L. Karabassova (2020) and many others. The literature has been found by searching databases such as Google Scholar and Scopus. The selected scientific sources were read in detail, critically understood and analyzed using the collection of information related to the topic of the study, as well as an assessment of the quality of the sources, in particular, a check of the credibility of the authors, research methodology and the presence of substantiated evidence. Key aspects, conclusions and recommendations related to the topic are highlighted. Data from scientific sources are organized and summarized for further analysis.

4. Results

The results are grounded on a comprehensive analysis of the contemporary educational environment in Kazakhstan, emphasizing the significance of both external factors, such as global digitalization, and internal factors like the knowledge and skills of educational staff. Central to this analysis is the "Trinity of Languages" project (Karabassova, 2020) and the role of multimedia educational environments in facilitating trilingual higher education, which focuses on Kazakh, English, and Russian languages, aiming to boost communicative competence and employ multimedia tools effectively in teaching and learning processes.

The study of the contemporary educational environment in Kazakhstan requires a fairly broad analysis of the elements affecting it. Among them, both external and internal factors should be singled out. The former includes dynamic socio-economic changes, which are generally caused by the process of global digitalisation and the corresponding introduction of innovative technologies in a number of public spheres. The internal factor, on the other hand, is largely driven by human capacity, in particular the level of knowledge and skills of educational staff. With the development and expansion of the above categories, there is a rethinking and reforming of the conditions pertaining to modern teachers. Some of the most common ones include their mobility and communicative competence. Both elements play an important role in the implementation of teachers' professional activities. In particular, communicative competence allows the subjects of the educational process to interact with each other in a qualitative way, and particularly to communicate effectively. Due to the developed communicative competence, a teacher can not only provide teaching information, but also evaluate the feedback, while identifying the strengths and weaknesses of each student. As for mobility, this aspect is currently a priority for professionals in every field, especially those that play a significant role in the development of the state (Jomartova et al., 2021). This is conditioned by the priority of students' mastery of several languages at once to enhance their professional competence and success in their professional activity.

The "Trinity of Languages" project occupies an important place in the current state policy of Kazakhstan, in particular in the field of higher education. The dynamism of its implementation depends to a great extent on the level of digital development of the educational environment of a particular region. Based on this, the concept of multimedia educational environment is fully interconnected with the development of trilingual higher education. Within this approach, the educational process is organized, with the development of the three languages. These include Kazakh as the state language, English as a language of international communication, and Russian as a language of inter-ethnic communication. This distribution is quite logical, as it allows the specialist to develop his or her own foreign language professional competence, which is also quite related to the individual's communication skills. Having established the general foundations of modern educational policy in higher education, it would be useful to consider its essence, i.e. theoretical content. At the moment, the concept of multimedia educational environment in Kazakhstan should be understood as a full-fledged structural element relating to the general information and educational environment implemented through multimedia technologies. The latter allow the subjects of the learning process to form appropriate conditions for the effective implementation of their learning, cognitive and scientific activities.

For a more in-depth analysis of this concept, it is necessary to consider its structural components, as these represent its main aspects and properties. Among these are the communicative subjects such as the communicant and the recipient. They also include communicative intermediaries, such as the developers of specific programmes and mechanisms, and the providers of websites. The nature of the interaction between these persons lies in their use of special communication tools and instruments. They are designed to create, transmit and store multimedia information and communication channels containing training material, in particular in a foreign language. A multimedia educational environment as a mechanism for the educational and vocational training of individuals, in particular in trilingual higher education, is a specifically defined and artificially developed environment based on a set of multimedia tools. It is characterised by the implementation of an effective learning and cognitive process. It is based on the formation and consolidation of a complete set of psychological and pedagogical conditions necessary for high-quality educational and vocational training of future specialists, in particular in the context of communicative competence. Such an environment includes specially developed educational resources, mechanisms, tools, approaches, and technologies for the organisation of students' learning activities, including specialities based on the "Trinity of Languages" project. Such trilingual learning is characterised by effective means for managing and regulating the entire educational process and the corresponding communication between the participants.

Trilingual higher education has been developing in Kazakhstan for several years. Its essence is revealed in the priority of Kazakh, English

and Russian language acquisition by the people of Kazakhstan. The introduction of this approach in the system of higher education in Kazakhstan is a necessary element, as the future development of the entire educational environment depends on it. At the same time, attention should be paid to the fact that in the context of digitalisation, the implementation of trilingual education is more convenient and optimal for the subjects of the educational process. This is conditioned by the fact that there is a wide range of innovative mechanisms and tools designed to improve and facilitate the process of foreign language acquisition. Introducing such tools to students' learning activities will therefore allow it to be adapted to the interests and attitudes of a particular study group. The ways and approaches by which trilingual education can be introduced and developed in higher education should be identified. These include the teaching of language subjects, in particular Kazakh, English and Russian. At the same time, additional academic disciplines aimed at improving a student's proficiency in a particular language should be introduced. This also refers to the level of development of communicative competence, as it is reflected in the communication of the subject of the learning process and their interaction with other people.

The teaching of narrow-focus subjects typical of specific fields of study in only one of the three languages or in cooperation with them also belongs to the ways of implementing trilingual higher education. In this case, the student masters the special terminological and vocabulary units that enable him or her to perform his or her professional activities in a foreign language. Finally, special attention should be paid to extracurricular activities, both academic and cognitive or even scientific. This type of activity is particularly effective for shaping and developing students' communicative competence, as it gives them the opportunity not only to acquire but also to reproduce knowledge. Furthermore, the interest and motivation of individuals to use trilingual education is increased through this type of activity. It can also be attributed to self-reflection, as it allows the student to identify his or her own strengths and weaknesses, which can be addressed through the use of a range of multimedia tools (Halian et al., 2020). Under these conditions, it is certainly possible for teacher education to develop successfully, which will be reflected in the level of communicative competence of specialists. This focus is a priority for the entire educational environment. It will prepare true professionals who will be able to independently and unconventionally implement their professional tasks in trilingual activities, while fully analysing and recognising both the personal and societal significance of their own authority. Therefore, one of the highest priority objectives for the educational public policy of Kazakhstan is the qualitative training of a teacher who will possess the proper level of pedagogical culture, the structural element of which is multilingualism (Bahadirovna, 2022).

5. Discussion

Having considered the basic general theoretical foundations underlying the issue under study, namely the multimedia environment and its role in the process of communicative competence formation in the field of trilingual higher education, it would be appropriate to identify the specific aspects determining the peculiarities of its implementation in Kazakhstan. To establish the dependence of these categories on each other, the basis and specific features of this type of educational environment should be identified. At the same time, its priority in the implementation of the educational and vocational training of students in higher education institutions should be considered. It is necessary to focus on the fact that the essence of innovative educational environment itself is significantly different from the features and characteristics of traditional educational environment. This is reflected in the fact that higher education institutions in Kazakhstan, which organise the learning process through traditional means and approaches, tend to define an established and universal order on their own. This creates obstacles in the process of transmitting and receiving learning information. This aspect is particularly reflected in trilingual higher education, as it requires constant and dynamic change. This, in turn, is not inherent in the above-mentioned approaches. They are not flexible, which consequently does not allow the teacher to take an individual approach to each of the students. This thesis is also confirmed by S. Kerimkulova (2020), who emphasizes that traditional educational methods are rigid and not adaptive to the dynamism required by trilingual higher education.

A disadvantage of the traditional educational environment, characteristic of a small proportion of higher education institutions in Kazakhstan, is that learning information and teaching approaches are selected and controlled solely by the teacher. Multimedia education, on the other hand, is characterised by the teacher's ability to publish and discuss learning material informally. This is characterised by the implementation of a free form, with constant and unimpeded access to it throughout the learning process. Y. Ho (2020) highlights that 63% of institutions employing multimedia teaching practices witness students attaining superior philological knowledge in congruence with their chosen professions. Such an indicator demonstrates that students at these higher education institutions are able to acquire good quality philological knowledge, while matching it with their chosen profession. In the context of developing communicative competence, a multimedia educational environment is also the most promising. This is determined by the fact that it is inherent in this environment, and consequently the means, to give students the opportunity to determine independently the set of learning information and disciplines they wish to master. Moreover, in trilingual education, this is particularly important. When students satisfy their own learning needs and interests, they are motivated to develop their own foreign-language professional competence, which they can implement during discussions (Axmadaliyevich and Qizi, 2022).

The tools and approaches specific to the multimedia educational environment in higher education institutions in Kazakhstan allow both the teacher and the students to divide and classify both the level of difficulty and the content of the learning tasks. In trilingual higher education, the actors in the learning process are able to independently develop and implement the optimum means for quality learning, and to determine the pace of learning. Based on this, one can emphasise that in this way the quality and speed of the students' oral tasks can be improved. This will, to a certain extent, reflect their communicative competence. M. Suyunovna (2020) underscores that multimedia tools enable a democratization of the learning process. Also, when analysing the process of communicative competence

formation in the field of trilingual higher education, it can be determined that it is extremely important to have a number of skills that the student must necessarily acquire. These include prompt solutions to problems and tasks (especially verbal ones); quality and thorough understanding of the learning material, so that the student can use his or her knowledge in future professional activities; self-reflection and learning from others. All of these skills are components of successful communicative competence, which manifests itself in three dimensions. This includes not only communicating, but also analysing both one's own level of knowledge and that of the interlocutor, and the ability of students to convey the information they receive (Bidaybekov et al., 2017).

The student must be empowered with knowledge and skills to navigate the whole multimedia environment covering not only the higher education institution but also other educational and academic institutions to ensure the successful dominance and use of Kazakh, English and Russian in the implementation of their own communicative competence, through multimedia. It is important for both teacher and student to be able to effectively use the provided multimedia tools, to facilitate and at the same time increase the effectiveness of the process of learning the three languages listed above. A special feature characteristic of multimedia-based higher education institutions in Kazakhstan is the involvement of students with diverse backgrounds. R. Dilmurod and N. Elmira (2020) highlight the inclusiveness of multimedia-based education, emphasizing its capacity to cater to students from diverse backgrounds. Such inclusiveness, they argue, offers students practical avenues to showcase their communicative competencies. Based on the above features characteristic of the process of forming communicative competence in the areas of trilingual higher education in Kazakhstan through multimedia, one can establish that they form a unified adaptive system. This, in turn, has a positive impact both on students' results and the professional development of teachers. There are a number of important opportunities for teachers who implement their professional activities through innovative means. These include the ability to independently adapt the educational process in accordance with individual and psychophysiological peculiarities of a study group or a specific student. S. Duisenova et al. (2020) delve into the teacher's role within multimedia teaching contexts, noting that teachers can finely tune the educational process to resonate with each student's unique needs. Such adaptability is pivotal for reinforcing linguistic knowledge.

The teacher gets an opportunity to identify, and most importantly support the individual philological strengths of the students through the introduction of multimedia and trilingual teaching approaches (Balykbayev et al., 2022). This certainly increases students' motivation to learn, and also contributes to improving their proficiency in Kazakh, English and Russian. In this process, various educational tools and instruments are combined into a single multimedia mechanism. Higher education institutions in Kazakhstan that promote the above-mentioned approach develop and provide a multi-faceted learning process. This, in turn, allows for a comprehensive impact on student knowledge and competence (Khamidovna, 2020). After all, the teacher, through the use of Internet platforms, educational websites, innovative language computer programmes, can qualitatively expand the content structure of the academic disciplines formed through the trilingual approach. The development of the whole educational environment of Kazakhstan takes place, as its subjects get the opportunity to determine an individual and effective educational trajectory. The priority function of a multimedia educational environment, in the context of trilingual higher education and the formation of students' communicative competence, is to ensure quality communication of the subjects of the educational process by using external tools. These include special networks, Internet, information communications, and multimedia educational resources designed for teaching and learning languages (Abudaqa et al., 2021). It is the basis for the implementation of the trilingual approach to learning. It is accompanied by the formation and consolidation of a number of important categories, including value-targeted, informational, programme-strategic, and technological (Karabassova, 2020).

Concretising the knowledge about the process of forming communicative competence, based on trilingual teaching, one should emphasise that the priority factor responsible for mastering both the state language and a foreign one is the qualitative consolidation and development of psychological and language readiness of the student for the future communication. The above condition is usually fulfilled through students engaging in emotional learning activities, especially when they are introduced to new learning information. A fairly effective approach is to create different kinds of situations which, in turn, allow the student to demonstrate their own level of communicative competence, including in a foreign language. Based on this, both emotional and affective factors can be identified as essential elements of the quality communicative competence of trilingual students (Chen et al., 2021). It is important to monitor the students' motivational activities, paying attention to their inner beliefs and desires to ensure that they are active in the development of communicative competence. Such consideration can be done during the organisation of teaching sessions in the form of games and also training. This approach not only increases the student's language proficiency but also affects their psychoemotional state and adaptation to the learning process (Kıçıkler, 2020).

Focused studies on language learning indicate the positive influence of multimedia. Visual and auditory stimuli can contextualize abstract linguistic concepts, making them tangible for learners (Gilakjani, 2012). Further, K. O. Jeong (2018) found that interactive multimedia platforms, such as language apps, promoted consistent engagement and practice, crucial for language retention. However, it's not without challenges. R. Silverman & S. Hines, (2009) pointed to the risk of over-reliance on technology, where students might lack deep immersion in any of the three languages. Additionally, there's the digital divide; not all students have equitable access to advanced multimedia tools, potentially exacerbating educational disparities (Papadopoulou & Ioannis, 2010).

When it comes to trilingualism, the multimedia environment offers distinct advantages. Nuanced cultural references, often lost in traditional textbooks, can be vividly presented through multimedia (Jeong, 2018). Moreover, interactive platforms can simulate real-life scenarios, compelling students to switch languages and adapt communicatively—a critical competence in trilingual contexts (Zhang, 2021).

Modern curricula, which are basic for higher education institutions in Kazakhstan, including trilingual education, are characterised by the observance and fulfilment of a number of educational objectives. One of the most important things is the quality of students' mastery of knowledge and skills, along with approaches to learning and cognitive activities (Barlybayev and Sharipbay, 2015). These can influence the effectiveness of learning both English and Russian. For learning the state language, i.e. Kazakh, priority is given to ways of provoking students' interest in their native language. Particular attention in this aspect should be paid to the development of their desire to learn correctly with the aim of perfect mastery of the state language, both in oral and written contexts (Abylkassymova, 2020).

A priority in today's multimedia learning environment in Kazakhstan is the development of students' knowledge and skills regarding their quality cooperation with both subjects of the study group and other individuals, in Kazakh, English or Russian. In this process, it is important to change the roles of these students to simulate different situations, and to view their communicative competence from different angles. Teaching students to obtain relevant and correct information from foreign language sources is also important. This will enable them to expand the range of learning materials and resources, in all three languages (Aidarov et al., 2020). After all, effective formation and consolidation of students' communicative competence is also possible in the course of both classroom and extracurricular learning or even research activities, but with the obligatory use of various multimedia tools. Based on this, it can be established that when selecting and approving learning resources in higher education institutions, the basic principles of communicative-oriented trilingual education must necessarily be considered. Particular attention should be paid to the speech orientation. This can be realised through the organisation of communication, the role-playing of the learning process, and the use of new and innovative approaches aimed at personal orientation of the students.

The authors provide a comprehensive exploration of the multimedia environment's role in fostering communicative competence within trilingual higher education in Kazakhstan. While the majority of the authors recognize and advocate for the potential benefits of multimedia education in fostering communicative competence in trilingual higher education, there's a consensus on the need for a balanced approach. Emphasizing the importance of adaptability, inclusiveness, and the genuine interest of the learner, they see multimedia as a tool rather than an end in itself.

6. Conclusions

Thus, the findings stem from an in-depth examination of Kazakhstan's modern educational landscape, highlighting the impact of external elements like global digital trends and internal aspects such as educators' expertise and abilities. The study considered a number of important elements that comprise its object. The whole process of studying this issue can be divided into two parts, namely the theoretical and the practical. This approach was necessary to qualitatively examine the essence of the general theoretical concepts related to the subject under study. The theoretical content of such concepts as multimedia educational environment, communicative competence, and trilingual teaching was defined at the beginning of the study. Not only their concept, but also their main features and characteristics were examined. The study has therefore been able to establish a correlation between the above categories. The theoretical analysis was based on the comparison of traditional and multimedia educational environments, which certainly had an effective impact on the findings of this study. The practical part concretised the aspects under consideration, in particular in line with the specific features of Kazakhstan's education policy. The impact of multimedia educational environment on the process of communicative competence formation within trilingual higher education has been determined. This approach is certainly characterised by a number of advantages, which are largely determined by the challenges of today's world. Special attention was paid to the highly adaptable nature of multimedia tools and their role in the learning process.

It has been established that their implementation enhances a number of opportunities for both students and teachers. There is an opportunity to individualise the learning process. This will certainly have a positive impact on the level of language skills and communicative competence of the students. The consideration of this issue took place in the context of analysing approaches to the presentation and acquisition of English, Kazakh and Russian in higher education institutions of Kazakhstan. At the same time, an important place in the study was given to the analysis of awareness, both internal and external, reflected in the formation of communicative competence among students.

Here are some potential limitations of the study. Different educational institutions have varying access to multimedia technologies, which could affect the outcomes of the study. The effectiveness of multimedia in fostering trilingual communication also vary based on cultural contexts, which the study might not account for in its entirety. When presenting the results of the study, it's essential to acknowledge these limitations to provide context for the findings and recommendations. It will also help other researchers build on the work in future studies. Based on the findings of the study, a priority for future academic studies is to consider the main and most common digital tools for enhancing the level of foreign-language professional-communicative competence of future teachers.

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