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The Methodological Algorithm of Forming Multimedia Foreign Language Communicative Competence of Secondary School Students

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ABSTRACT: This article is dedicated to one of the most pressing topics in modern foreign language education, the problem of forming multimedia foreign language communicative competence of secondary school students. This scientific phenomenon can be constituted as a cumulative readiness and ability of a multilingual learner to effectively engage in foreign language communication within the context of multimedia-mediated intercultural communication, aimed at self-development and self-realization of its participants through conscious and active assimilation of new social experience. At the core of the structure of this competence lies a set of universal learning actions that ensure the students' ability for self-development and self-improvement through conscious and active assimilation of new social experience. The study identifies a structured methodology for developing multimedia foreign language communicative competence in secondary school students, emphasizing their readiness and ability for effective intercultural communication and self-development through a five-stage, multi-level system. The implementation of this methodology resulted in significant improvements in students' foreign language proficiency, intercultural communication skills, and their ability to effectively use multimedia tools for self-directed learning and collaboration.

Keywords: multimedia educational environment, multimedia tools, e-educational resources, the level of multimedia, multimedia foreign language communicative competence

I. INTRODUCTION

Multimedia plays an increasingly vital role in foreign language education, reflecting the broader influence of technology on teaching and learning. The integration of multimedia technologies transforms traditional classrooms into dynamic learning spaces that address the evolving demands of contemporary society. This transformation aligns with the rapid advancement of science and technology, the emergence of Innovative Information Technologies (ICT), and the growth of cross-cultural communication. Contemporary society is marked by the rapid advancement of science and technology, the emergence of Innovative Information Technologies (ICT), and the growth of cross-cultural communication, exerting a profound influence on various aspects of human life, including the realm of education. The frequent updating of knowledge, the evolution of e-means of communication expands the information landscape, making the school no longer the sole channel for acquiring knowledge. Moreover, success in society is attainable for individuals who are willing to learn continuously and possess the ability to adapt swiftly in a dynamically evolving environment [1].

A crucial challenge in ELT is the development of foreign language communicative competence. This competence enables individuals to engage in intercultural communication, fostering the improvement of a multilingual and multicultural personality.

In the present context, it is crucial to perceive intercultural communication as an essential element within the modern multicultural setting, closely intertwined with the information space. Researchers employ a philosophical perspective to examine the current educational system, identifying qualitative shifts in its various

components through the analysis of informatization processes. The entire educational system undergoes a transformation, taking on new features and attributes of a multimedia educational environment [4].

Although the research on the development of foreign language communicative competence is diverse and significant, it does not fully address the challenge of shaping the communicative competence of school students within the multimedia educational setting. A multimedia educational environment is "a learning environment that integrates diverse media and technology to convey information and support learning. It encompasses the utilization of audio, video, graphics, and interactive elements to enrich the educational process, offering students a variety of engaging methods for acquiring and comprehending information. This setting makes use of digital tools and resources to establish an interactive and dynamic learning space, enhancing the overall educational experience in a more thorough and efficient manner".

According to [3] "A multimedia educational environment refers to an educational and informational setting where students and teachers engage with external resources through accessible intellectual platforms: Internet, educational platforms, distance learning courses, etc."

Establishing an educational environment centered on Information and Communication Technology (ICT) is crucial for advancing multimedia education. This approach involves integrating innovative multimedia learning tools that foster the development of both students and educators. By addressing challenges related to the evolving landscape of educational practices, ICT enables a dynamic network of connections that supports the personal and professional growth of all participants.

Therefore, a Multimedia educational environment stands out as a top-tier modern educational approach, leveraging information and communication technologies (ICT) and multimedia to empower students' personal growth as they engage independently with multimedia tools. Its goal is to elevate educational standards and streamline educational processes. Moreover, it plays a pivotal role in shaping the educational landscape of open education pedagogy.

The objectives of this study flow directly from the identified gap in the literature and seek to address the challenge of shaping foreign language communicative competence in secondary school students within a multimedia educational environment. Specifically, the study aims to:

1. Develop a comprehensive theoretical framework for understanding and defining foreign language communicative competence within a multimedia educational environment, addressing the interchangeable use of terms and fragmented approaches in existing research.
2. Design and implement a systematic methodology for forming multimedia foreign language communicative competence, integrating multimedia tools and ICT into the teaching process to create a dynamic and interactive learning space.
3. Evaluate the effectiveness of this methodology in enhancing students' intercultural communication skills, fostering self-directed learning, and promoting personal growth within a multimedia-rich context.

By pursuing these objectives, the study not only consolidates two decades of experience in employing multimedia tools in foreign language education but also introduces innovative strategies to bridge the gap between theoretical foundations and practical applications, thereby contributing to the modernization and effectiveness of language teaching in secondary schools.

The problem of using multimedia tools in teaching a foreign language has been studied by scientists from different angles: approaches to using the potential of multimedia technologies have been identified by [5]; characteristics of employing multimedia technologies in language education were discovered by [2, 4, 9, 10].

Despite the diversity and significance of the conducted studies addressing the enhancement of foreign language communicative competence, they do not fully address the issue of shaping students' foreign language communicative competence in the multimedia educational environment. Such an environment is rich in educational technological tools that possess significant potential. The accumulated experience over two decades of using multimedia tools in teaching foreign languages in mainstream education requires, on one hand, consolidation, and on the other hand, the development and implementation of new opportunities to improve the quality of foreign language instruction in schools. The gathered expertise and range of teaching methods remain underutilized due to the absence of comprehensive theoretical consolidation. While the current conceptual framework lays the groundwork for explaining the development of foreign language communicative skills, certain terms are often interchangeable, particularly in practical applications.

Academic literature review regarding the enhancement of the educational process using multimedia teaching resources, understanding both local and international practices, observing classroom learning, and analyzing

practical experiences in teaching foreign languages in schools has led to the identification of a crucial problem: "What is the methodology of forming multimedia FL communicative competence in secondary school?"

The purpose of this article is to create and apply a scientifically grounded and experimentally validated methodology of multimedia foreign language communicative competence of secondary school students.

This study seeks to address these gaps by developing and validating a scientifically grounded methodology for forming multimedia foreign language communicative competence in secondary school students. By synthesizing theoretical insights and practical applications, the proposed methodology aims to bridge existing divides in the literature, offering a more integrated and effective approach to leveraging multimedia tools for language education.

II. METHODS AND MATERIAL

Multimedia learning tools represent contemporary technological systems enabling interaction with textual data, visual imagery, audio, and animated graphics. They facilitate the advancement of foreign language education by enhancing intellectual engagement, reducing mundane tasks for both educators and learners, and offering a vital approach to constructing an educational framework focused on fostering the foreign language communicative skills of students within a multimedia learning environment.

In the logic of this research, multimedia learning tools have been examined based on their didactic abilities at each stage of developing foreign language communicative competence within the multimedia educational environment. The hierarchy of such tools reflects the degree of their integration into the educational process. The effectiveness of learning in a multimedia educational environment is determined not only by the technical tool itself but also by how and for what purpose it is used by the educator. In this regard, two aspects are significant. Firstly, the extent to which a multimedia tool addresses specific educational needs when developing the foreign language communicative competence of students within the multimedia educational space. Secondly, the function it serves within the instructional process.

In both foreign and domestic literature, several levels of interactivity of multimedia tools are distinguished according to their complexity [1, 4, 6, 7, 8].

In our research, we examine four levels of user interaction with e-educational resources in order to enhance educational effectiveness through the application of active learning methods:

1. Passive forms involve activities such as reading text, viewing graphics, listening to audio, observing images, and perceiving audiovisual content, which do not necessitate active user engagement with the content.
2. Active forms entail actions such as navigating through content elements, selecting, copying, resizing, and repositioning visual objects, which involve user interaction with the content at a basic level of engagement.
3. Activity-based forms involve actions such as deleting, inserting objects, moving, composing arrangements, and adjusting object parameters, allowing constructive user interaction with multimedia content with a greater degree of freedom in selecting the sequence of actions leading to the achievement of educational objectives.
4. Research-based forms do not adhere to prescribed actions following an algorithm; instead, they involve users' arbitrary manipulations with their own product created within a multimedia environment, akin to virtual reality.

The classification of multimedia learning tools aligned with the components of foreign language communicative competence has enabled the development of a system of multimedia learning resources essential for fostering this competence among students of the secondary school's multimedia educational environment (Table 1).

The classification of multimedia learning tools necessary for developing students' foreign language communicative competence in the multimedia educational environment reflects educational needs aimed at providing content for the components within the structure of this competence and the level of interactivity of multimedia tools utilized in the instructional process.

The classification presented in the Table 1 establishes a hierarchy within the system of multimedia learning tools by allocating them across five levels.

Table 1. The classification of multimedia learning tools in developing students' multimedia foreign language communicative competence.

The level of multimedia	Integration opportunities into the educational process	Meeting educational needs
Basic	Multimedia learning tools share minimal distinctions compared to traditional learning tools and paper-based media; they serve as a simple replacement without any additional functions.	Enhancing of necessary abilities and skills
Substitutive	Multimedia learning tools supplement traditional learning tools with minor functional enhancements.	Enhancing of necessary abilities and skills
Constructive	Multimedia learning tools facilitate the application of acquired knowledge within the multimedia educational environment; provide an opportunity to create a media product using educational websites and e-resources.	Fostering and actualizing creative potential of students
Communicative	Multimedia learning tools encompass features of multimedia learning tools at the third level, complemented by the ability to publish media products on the Internet.	Developing communicative skills
Innovative	Groundbreaking innovations enable the resolution of tasks that were previously deemed impossible.	Developing a multilingual personality.

Level 1 (Basic) - encompasses elementary multimedia tools that closely resemble traditional ones commonly used in foreign language instruction. In terms of their functions, they are analogous to paper-based information carriers and merely represent a new form of data recording and visual aids (such as PowerPoint, Word, Excel).

Level 2 (Substitutive) - includes multimedia learning tools that can serve as substitutes for traditional ones and possess slightly greater functional capabilities. These tools encompass interactive whiteboards (e.g., Smart Board), online dictionaries (such as Word Spy, Cambridge Online Dictionaries, One Look, Merriam-Webster, Rhyme Zone), encyclopedias (e.g., Encyclopaedia Britannica, Wikipedia, Wikie for Kids), search engines (e.g., Google, Yandex), English-language educational websites with interactive tasks (e.g., British Council, Scholastic), and electronic applications for text processing (e.g., Book Reader, Dance Mat Typing).

Level 3 (Constructive) - consists of multimedia tools that offer ready-made templates and tools for creating basic media products in a foreign language: posters, diagrams, charts, QR codes, crosswords, greeting cards, video slides, newspaper and magazine pages, comics (e.g., Pen.io, Easel.ly, ReadWriteThink, PowToon, StoryBoard, Popplet, WeVideo).

Level 4 (Communicative) - multimedia learning tools that enable the creation of more complex products in a foreign language, such as simultaneous collaboration on a shared document and publishing the results of joint activities on the Internet (e.g., Titanpad), creating blogs (e.g., Weebly, Kidsblog), websites (e.g., Wix).

Level 5 (Innovative) - encompasses multimedia learning tools that have never been used in education before, aiding in solving tasks that are impossible under other conditions: conducting online surveys, conferences (e.g., TeamSpeak), interactive experiments, observations using a webcam, corresponding with peers from other countries (e.g., ePals), communication via Skype, creating video clips and movies (e.g., Movie Maker), technologies for integrating digital content into the real world (augmented reality - AR).

This classification has served as the basis for providing organizational and didactic conditions necessary for structuring the learning process aimed at fostering students' multimedia foreign language communicative competence within the school educational environment.

The methodology developed by the researchers to enhance students' multimedia foreign language communicative competence represents a multi-tiered framework that mirrors the progression of competence development. It aligns with the structure of foreign language teaching from the fifth to the ninth grade of secondary school (Table 2).

Table 2. The methodology of enhancing students' multimedia foreign language communicative competence.

Content and Technological characteristics of the teaching process	The stages of forming multimedia communicative competence				
	Basic	**Substitutive**	**Constructive**	**Communicative**	**Innovative**
Content of teaching	New language material at the level of initial acquisition. Examples of speech expressions, textual materials for developing oral and written speech. Motivation for foreign language communication	Skills facilitating language mastery as a means of communication. Effective methods for using electronic reference materials, dictionaries, and search engines. Formation of motivations for communicative activities in the multimedia educational environment.	Understanding techniques for completing writing, reading, and speaking tasks using multimedia learning tools. Fostering creativity and a drive for self-improvement.	Skills in selecting linguistic means appropriate to the communication situation. Abilities to plan and evaluate one's own learning activities while making optimal choices of tools to address the tasks at hand. Understanding norms of behavior on the Internet.	Knowledge of the socio-cultural specifics of the country where the language is studied, skills enabling interaction with its native speakers. Abilities to present one's own country and culture. Fundamentals of tolerance in communication with representatives of other cultures.
The structure of the teaching process	The teacher is the core of the learning process, the primary source of information. Students master carefully selected phonetic, lexical, and grammatical material on the topic being studied.	The teacher determines the choice of multimedia, systematically monitoring the process of task execution in a multimedia-mediated context. Students complete tasks using Internet sources under the guidance of the teacher.	The teacher suggests the methods and means to achieve the learning outcome, gradually increasing the level of autonomy in task completion. Students complete tasks in practice by applying the material they are studying, using the multimedia	The teacher guides the collective activities of the students. Students independently choose the content and means of creating and presenting their own product in a foreign language in multimedia format.	The teacher supervises the project-based, experimental, and research activities of students using various multimedia tools. Students complete creative, project-based, and research tasks in groups, participate in video conferences, and

			tools provided by the teacher.		interactive excursions.
Didactic tools	Multimedia tools with a standard range of features/options. Production and viewing of Power Point presentations	Multimedia tools functionally distinct from traditional teaching methods.	Educational websites and tools for creating basic media products, facilitating the application of acquired skills in the multimedia educational space. Internet-based resources like theme relevant websites and online videos (YouTube, Google, etc.)	Tools for creating audio and video files, animation, publishing products, for discussion in blogs, on websites, and in Internet groups. Online synchronous and asynchronous chat rooms.	Webcam recordings, Skype, QR codes, AR, Simulation software

As evident from the table, the role of the teacher in the educational process changes from stage to stage, accompanied by an increase in the autonomy and creative activity of the students.

The methodology of enhancing students' multimedia foreign language communicative competence includes a system of activities aimed at developing the skills to work with information.

1. Activities designed to develop basic knowledge (lexical, grammatical, phonetic, factual, etc.) among students of 5-9 grades as they progress through each of the topics being studied.
2. Activities aimed at activating acquired knowledge based on authentic texts of various themes, complexities, and genres according to the students' proficiency level in the foreign language and the interests of children and teenagers. Tasks include identifying the main information in the text, examining details, recognizing facts and statements containing the author's opinion, and expressing one's own attitude towards the reading material.
3. Activities required the transformation of information presented in the text into a plan, diagram, table, poster; creating one's own secondary text based on a model or independently. These tasks develop skills to convey information in a concise form and transfer it into multimedia format.
4. Activities aimed at developing critical thinking skills, analyzing received information and expressing one's own critical attitude towards the designated topic, problem, or question. The proposed task may include paired text with the condition of comparing and evaluating two different opinions, facts and interpretations.
5. Activities requiring the summarization of a larger block of information, establishing the logic of events, making assumptions, and drawing conclusions.
6. Activities aimed at independent selection of information necessary for project activities, searching for arguments to justify one's own (or collective) point of view; ability to analyze and summarize information from different sources, draw conclusions based on personal experience and existing knowledge.

The texts for the listed tasks can be presented in both multimedia and printed formats.

The active use of multimedia tools is assumed at the stage of creating students' own product in a foreign language, involving search engines, dictionaries, templates, interactive features, and digital multimedia devices. Moreover, emphasis is placed on adhering to Internet safety guidelines and respecting copyright laws.

As the enhancement of students' multimedia foreign language communicative competence in greatly relies on the presence of a set of personal qualities inherent to a polylingual personality, the curriculum includes topics where students become acquainted with the history, customs, traditions, and realities of daily life of peers from

other countries through the rational selection and use of authentic audio, video, and textual materials in the educational process. They learn to present their own culture, talk about their interests, hobbies, aspirations, and life priorities.

Thus, Multimedia foreign language communicative competence is the ability of multilingual individuals to effectively engage in foreign language communication in the context of multimedia-mediated intercultural communication.

Since the formation of multimedia foreign language communicative competence of school students is of great importance, the presence of a complex of personal qualities inherent in a multilingual personality is essential. During the study of topics provided by the curriculum, students become acquainted with the history, customs, traditions, and everyday life realities of peers from other countries through the rational selection and use of authentic audio, video, and textual materials in the educational process. They learn to present their own culture, talk about their interests, hobbies, aspirations, and life priorities.

The first stage of forming multimedia foreign language communicative competence of school students corresponds to the basic level of integration of multimedia teaching tools into the educational process. It involves the active use of multimedia teaching tools by the teacher to organize the initial training of new educational material. At the first stage of forming multimedia foreign language communicative competence of schoolchildren it is important not only to develop necessary pronunciation, lexical, and grammatical skills, as well as skills in listening, reading, speaking, and writing, but also to acquaint students with the traditions and the culture peculiarities of the target language.

The format of the proposed tasks is optimal in terms of complexity. The main activities include working with text documents, creating tables using programs like Word and Excel, PowerPoint presentations, engaging in interactive exercises using educational websites, listening to audio files, watching videos, and completing test assignments in e-format.

The creative component of the teaching process is realized through students creating simple products in the foreign language based on a provided text, using basic multimedia tools such as tables, short stories, messages, and presentations.

The second stage of forming multimedia foreign language communicative competence of school students involves completing tasks using second-level multimedia teaching tools, which are similar to traditional ones but have some additional functions. The students' activities continue to be directed, regulated, and monitored by the teacher. Both individual and pair work methods are used when creating various tables, diagrams, drawings, and pictures illustrating the content of the texts read in a foreign language. Students learn language tools to express their own opinions both orally and in written form. Under the guidance of the teacher, students carry out activities to transfer their existing knowledge, skills, and abilities into a multimedia context using simple multimedia tools. For this purpose, teacher-recommended online dictionaries, encyclopedias, as well as English-language websites containing textual material and interactive practice activities are utilized.

The third stage plays a special role in forming multimedia foreign language communicative competence of school students. This stage involves students independently creating an individual or joint product in a foreign language using online tools - multimedia Internet resources. Due to the abundance of educational websites on the Internet, the teacher selects the tools and materials that correspond to the curriculum, as well as the interests and needs of school students. This promotes student-centered learning and creates conditions for strengthening the motivational sphere. The website http://www.readwritethink.org/ possesses significant educational potential at this stage. It offers interactive online tools for creating various diagrams, charts, crosswords, greeting cards, newspaper pages, and comics in English. The use of these tools in teaching process contributes to the development of students' skills in transferring their existing language knowledge, abilities, and skills into a multimedia context, as well as fosters the development of critical thinking. Students independently choose a suitable template according to the type of task, its level of complexity, and their own capabilities. This significantly increases the level of motivation and autonomy, creating conditions for the realization of each student's individual creative potential.

More complex tasks are completed with the help of the website http://www.powtoon.com. Here, there are various templates for creating high-quality animation and videos. Such tools allow educators to design tasks that elevate the foreign language communicative activities of students in a multimedia format to a higher level. Completing such tasks involves the ability to set goals, plan activities, allocate roles and responsibilities in collaboration, negotiate; listen and engage in dialogue, participate in collective problem-solving discussions, integrate into peer groups, interact productively, and evaluate the final outcome. These conditions create opportunities for the formation and development of students' personal, regulatory, and communicative universal

learning actions, which constitute the basis of forming multimedia foreign language communicative competence of school students.

The fourth stage of forming multimedia foreign language communicative competence of school students ensures further learning in collaboration, utilizing tools for publishing and exchanging information with classmates, including on the Internet. This fully aligns with the communicatively-mediated nature of cognitive activities of school learners.

At this stage, there is a significant change in the content of the educational process, with a considerable increase in autonomy and collaboration among participants. The teacher creates conditions for active independent selection and use of various multimedia tools by the learners, enabling them to create their own products in a foreign language that reflect the realities of their everyday life, interests, and hobbies.

When organizing foreign language education in a multimedia educational space, effective tools such as https://titanpad.com/, http://education.weebly.com, http://kidblog.org, http://ru.wix.com can be utilized. The Internet possesses enormous potential for actualizing foreign language communicative skills in a qualitative multimedia format.

Since the informational environment of modern society is constantly evolving, providing new opportunities for Internet users, the list of multimedia teaching tools will never be narrowly regulated. The 21st century opens up broad opportunities for educators to realize their creative abilities while simultaneously demanding careful selection of educational materials, multimedia teaching tools, and ensuring the information security of students (Figure 1).

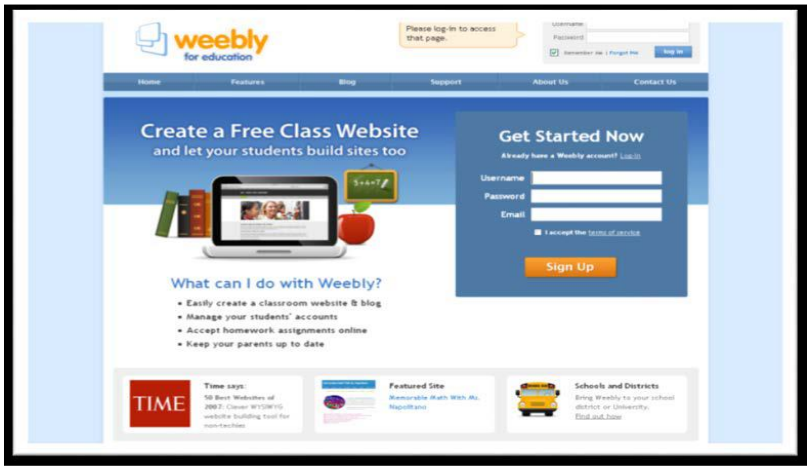

FIGURE 1. Creating a blog using Weebly.

During the fourth stage of forming multimedia foreign language communicative competence, students become acquainted with the rules of communication and information exchange in the online community. Students develop a conscious desire to improve their own foreign language communicative skills, necessary for effective interaction in a multimedia-mediated context.

At this stage, the teacher encourages students to demonstrate creativity and initiative in selecting multimedia tools needed to complete tasks, fostering the ability to independently determine their capabilities and effectiveness. Students analyze and critically evaluate their own activities in situations of multimedia-mediated foreign language interaction. Due to gaining new experience in communicating in the multimedia educational space, universal learning actions are formed, providing students with the opportunity for independent acquisition of new knowledge, skills, and abilities, as well as the ability to construct their own trajectory of learning activities and personal self-determination.

In the fifth stage of developing multimedia foreign language communicative competence in school students, cutting-edge multimedia tools are utilized, enabling the creation of foreign language products that were previously unachievable. At this point, the multimedia tool itself becomes secondary, no longer the focus of the educational process. Students have gained the ability to independently manage their learning activities, showing a high degree of autonomy in selecting both the content and multimedia tools required to complete tasks. For instance, students now use tools to create animations, video clips, or films.

At the final stage, students adopt a thoughtful, responsible approach to multimedia tools, recognizing them as essential for facilitating intercultural communication. Additionally, students acquire the skill to accurately evaluate their own performance in multimedia-mediated intercultural communication contexts.

Therefore, the methodology developed for enhancing school students' multimedia foreign language communicative competence incorporates multimedia teaching tools across five levels of interactivity.

III. RESULTS AND DISCUSSION

The research gap lies in the lack of comprehensive theoretical frameworks and methodologies that specifically address the formation of foreign language communicative competence within a multimedia educational environment. While prior studies have explored various aspects of multimedia tools in education such as their potential in language instruction [5], principles of multimedia learning [4], and their applications in pedagogy [2, 10, 11] these investigations often remain fragmented and insufficiently integrated. Existing literature tends to focus on individual aspects of multimedia use, such as specific tools or isolated strategies, without providing a cohesive framework that unites theory and practice. Furthermore, the accumulated experience from two decades of employing multimedia tools in foreign language teaching has yet to be fully consolidated or leveraged to its full potential. This gap results in missed opportunities for optimizing foreign language instruction and for utilizing multimedia environments to foster self-directed learning and intercultural communication skills. Additionally, interchangeable use of key terms and the absence of a clear, practical methodology hinder the effective application of multimedia tools in mainstream educational settings. Addressing this gap, the study seeks to develop a robust, multi-level methodology that systematically integrates multimedia tools into foreign language instruction, bridging theoretical concepts and practical applications to elevate the quality of education in secondary schools.

The sample size of 120 students from grades 5–9 was deliberately chosen to ensure the representativeness and relevance of the study. This selection aligns with the developmental and educational characteristics of students in these grades, which make them an ideal demographic for examining the formation of multimedia foreign language communicative competence. Specifically, these grades encompass a critical period when students transition from foundational to more advanced levels of language learning, thereby offering a diverse range of skill levels and cognitive readiness to analyze the efficacy of the proposed methodology.

Grades 5–9 were selected because students in these grades are typically more receptive to multimedia tools due to their increasing familiarity with technology and growing capacity for self-directed learning. These grades also represent a significant stage in the development of foreign language skills, where students begin to engage in more complex language tasks that multimedia tools can effectively support. Moreover, this range provides an opportunity to observe differences in the impact of the methodology across various age groups and educational stages, allowing for a more comprehensive evaluation.

The practical implementation and effectiveness of the created methodology of forming multimedia foreign language communicative competence of school students took place within the framework of experimental training at secondary school “Zhanaturmys” in Almaty, Kazakhstan. 120 students from 5-9 grades participated in the experimental research.

Data collection allowed us to obtain the following results:

- In school practice, multimedia teaching tools of the first and second levels predominantly prevail. The scope of their application is not wide; mainly, it includes multimedia presentations in PowerPoint format.
- Questioning EL teachers about the potential of multimedia teaching tools in forming foreign language communicative competence revealed that only 13.8% of respondents are confident in their effectiveness and actively use them in the educational process, while 42.8% use them only occasionally. Their own position regarding the use of multimedia teaching tools in pedagogical activities was not always clear; 28.6% - directly or indirectly - expressed doubts about the necessity of mastering broader capabilities of these teaching tools. 14.8% of the total number of respondents showed a willingness to improve their methodological arsenal through the use of multimedia teaching tools.
- According to the survey results of students from grades 5 to 9 regarding the frequency of using multimedia teaching tools in school lessons, 31% of respondents noted that this happens almost daily, 52.7% observed it only once a week, and 10% - once a month. A more detailed analysis of the data showed that multimedia teaching tools are predominant in subjects of the humanities cycle, and the intensity of their usage gradually

decreases from lower grades to higher ones. The average integration rates of multimedia teaching tools (using PowerPoint presentations as an example) in the activities of teachers and students in foreign language lessons across parallel classes (based on one class, one teacher, and one student) are presented in the graph (Figure 1).

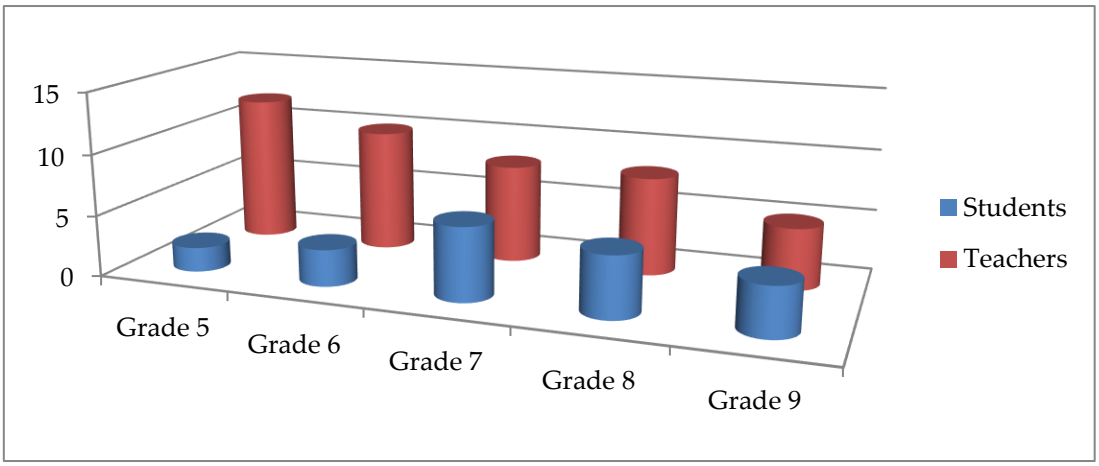

FIGURE 2. The number of PowerPoint presentations used in English language classes.

As we can see, on average, teachers demonstrate higher media activity compared to students. The data presented in the graph demonstrate a decrease in multimedia activity among teachers by the fifth year of education (9th grade) while observing an increase in activity among students. There is a spike in the use of multimedia teaching tools by students in the 7th grade, which is most likely explained by the pronounced desire of adolescents in this age group for independence. However, as the graph shows, the activity of students is not at a sufficiently high level, especially in grades 8-9, when the realization of their own creative potential and the desire for independence are particularly important for adolescents.

Meanwhile, the study has shown that students have a sustained interest in multimedia sources of information, as well as a certain level of experience in utilizing Internet resources in their daily educational activities. The results of a survey conducted among 100 students from grades 5 to 9 are presented below (Table 3).

Table 3. The priorities of school students in using Multimedia tools.

Media resource	What attracts you?	% of the number of respondents
Google, Yandex	A lot of new and interesting information	84%
	Quality of information presentation (availability of illustrations)	27%
	Accessibility and speed	61%
	You can learn something that is not in the textbook	59%
YouTube	Finding the necessary illustrations.	12%
	Upload a video	3%
Wikipedia, online encyclopedias, dictionaries.	Figure out on your own what you didn't understand in class.	15%
ChatGPT	Quickly understanding/writing a text of any level of complexity.	6%
Internet Educational Websites	Find a sample of completing tasks	4%
Social network	Find out, discuss home assignments with classmates	2%

As we can see, learners actively use search engines and Internet information channels, which assist them in their studies, demonstrating curiosity and interest in expanding their own knowledge, in independent information search that is absent in traditional sources.

Research conducted after experimental learning and implementation of the developed methodology of forming multimedia foreign language communicative competence of school students indicates that learners are able to create the multilingual intellectual products at a higher creative level, both under the guidance of a teacher and independently, utilizing a broader range of multimedia teaching tools.

After experimental learning Survey English language teachers showed that 77% out of 110 educators participating in the discussion actively apply multimedia teaching tools in their lessons (Figure 2), 69% assign homework tasks based on Online learning platforms (Figure 3, 4), and 78% of students use multimedia tools themselves in class (Figure 5, 6). Among the most effective didactic tools highlighted are Google Classroom, Kahoot, Quizlet, ChatGPT.

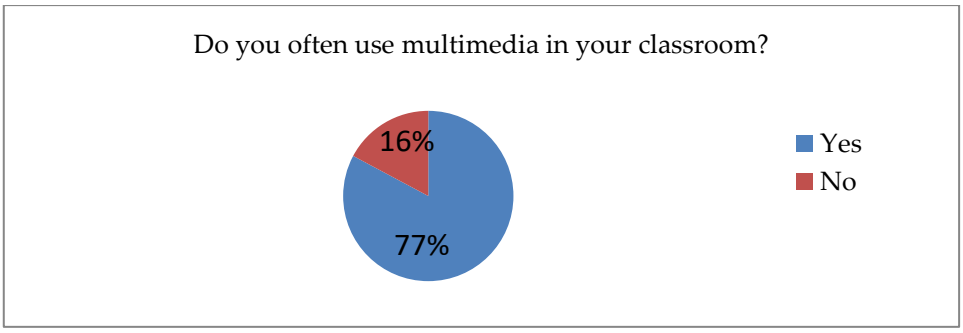

FIGURE 3. Do you often use multimedia in your classroom.

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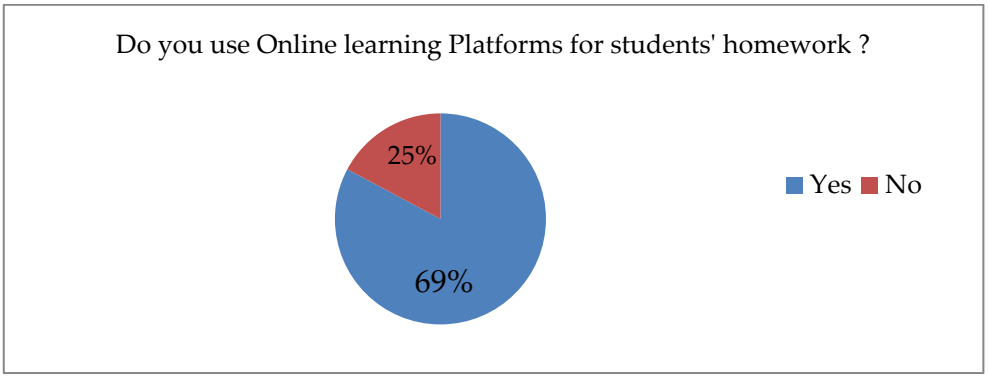

FIGURE 4. Do you use Online Learning Platforms for students' homework?

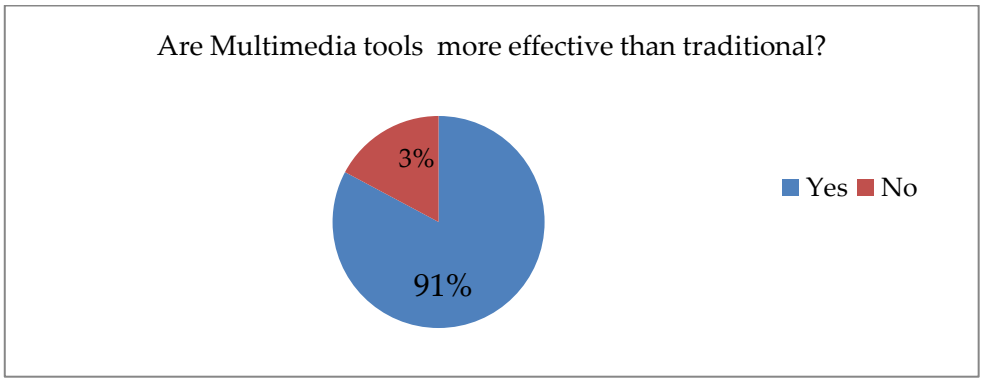

FIGURE 5. Are Multimedia tools more effective than traditional methods?

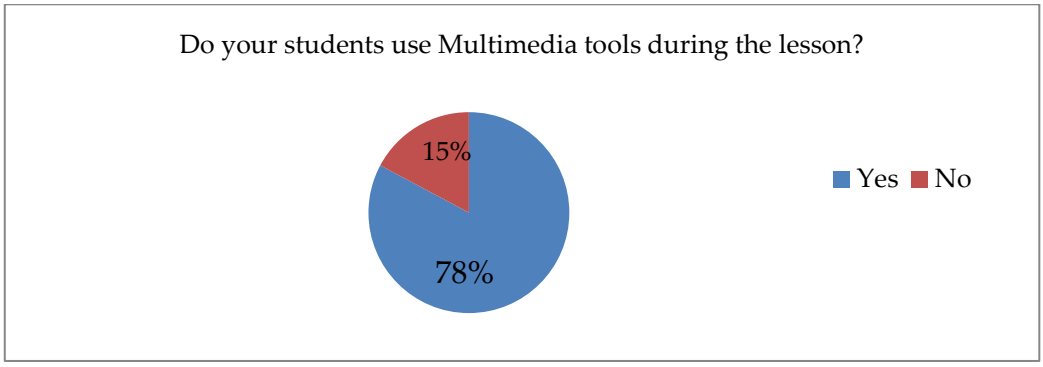

FIGURE 6. Do your students use Multimedia tools during the lesson?

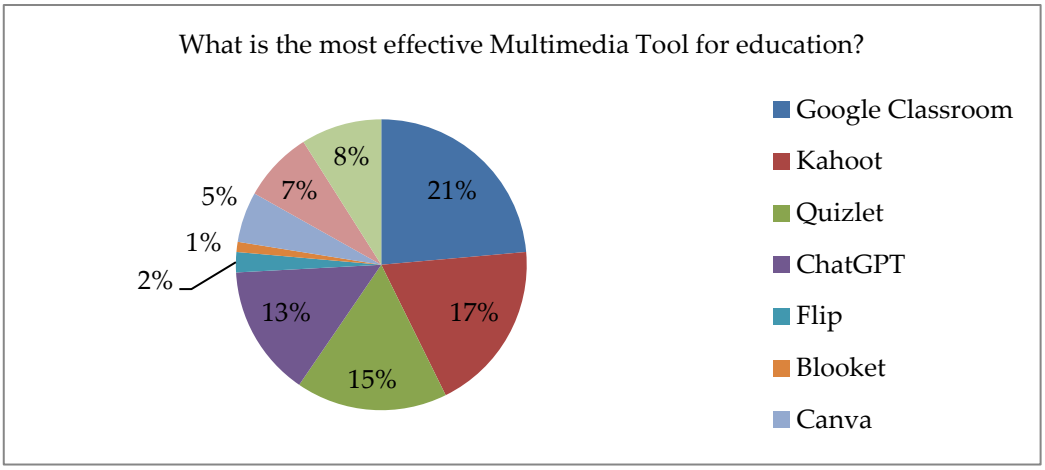

FIGURE 7. Respondents' Opinion on the Effectiveness of Multimedia Learning Tools.

IV. LIMITATIONS OF THE STUDY

1. Sample Size and Scope: While 120 students provide a reasonable sample size for the study, it is limited to one school in Almaty, Kazakhstan. Therefore, the findings may not be fully generalizable to other schools, regions, or countries with different educational contexts, infrastructure, and access to multimedia resources. A larger, more diverse sample across various schools would strengthen the external validity of the results.
2. Teacher and Student Experience with Multimedia Tools: The study's results could be influenced by the varying levels of prior experience with multimedia tools. Teachers who have less familiarity or training with multimedia tools may be less likely to use them effectively, leading to underutilization in the classroom. Similarly, students' familiarity with multimedia tools outside the classroom might shape their responses, as students who are more tech-savvy could report higher levels of engagement with these tools, even if the tools themselves are not used extensively in class.
3. Technological Limitations: The study did not account for potential technological limitations, such as access to high-quality hardware and internet connectivity, which might affect the frequency and quality of multimedia tool use. If the school faced technological challenges, such as outdated computers or unreliable internet access, the integration of multimedia tools in lessons could have been hindered, potentially limiting the effectiveness of the methodology.
4. Short-Term Nature of the Study: The study focused on the practical implementation of the methodology within a specific time frame, and its long-term impact on students' foreign language communicative

competence remains unclear. Future research could explore how the methodology affects students over a longer period, considering both short-term improvements in skills and long-term retention and application of knowledge.

In conclusion, while the study provides valuable insights into the effectiveness of multimedia tools in forming foreign language communicative competence, these alternative interpretations and limitations suggest that further research is needed to address the broader implications of multimedia integration in foreign language education and its influence on teaching practices and student outcomes.

V. CONCLUSION

The study's findings indicate that multimedia tools hold significant potential to transform foreign language teaching by enhancing engagement, fostering intercultural communication, and supporting diverse learning styles. These tools, when effectively integrated into a pedagogical framework, can facilitate the development of foreign language communicative competence by aligning with cognitive and social learning theories. However, the study also highlights challenges, particularly in terms of teacher preparedness and the underutilization of available multimedia resources. Moving forward, future research should explore how multimedia tools can be more systematically incorporated into foreign language curricula, with an emphasis on professional development for teachers, the creation of multimodal learning environments, and the promotion of blended learning approaches. By addressing these challenges, multimedia tools can play a pivotal role in the evolution of foreign language education in an increasingly digital and interconnected world.

During our conducted research on the issue of forming multimedia foreign language communicative competence among school students, we have come to the following conclusions:

1. Multimedia foreign language communicative competence is the ability of multilingual individuals to effectively engage in foreign language communication in the context of multimedia-mediated intercultural communication.
2. To create a methodology of forming of school students' multimedia foreign language communicative competence it was necessary to consider the characteristics of existing types of multimedia tools in terms of their integration potential into the educational process at each stage of English language teaching. As a result, they were distributed across levels as follows: 1. (Basic) - multimedia learning tools similar to paper-based information carriers;
3. (Substituting) - serve as replacements for traditional teaching aids, with slightly enhanced functional capabilities; 3. (Constructive) - offer ready-made templates and tools for creating simple media products in a foreign language; 4. (Communicative) - allow simultaneous collaboration on a shared document, publishing joint work on the Internet, and correspondence with peers from other countries; 5. (Innovative) - used to solve tasks that are impossible to solve under other conditions.
4. A methodology of forming of school students' multimedia foreign language communicative competence represents a multi-level system comprising five stages and levels of mastering this competence within the framework of foreign language instruction from 5th to 9th grade.
5. This model reflects five stages and the corresponding levels of integration of multimedia learning tools into the educational process (basic level, substituting, constructive, communicative and innovative).
6. During the diagnostics, experimental data were obtained, indicating the effectiveness of applying a methodology of forming of school students' multimedia foreign language communicative competence.

Future research could explore how different age groups, such as primary versus secondary school students, respond to and benefit from multimedia tools in foreign language learning, identifying age-specific preferences and learning outcomes. Additionally, longitudinal studies could investigate the long-term impact of multimedia tool usage on students' language proficiency, retention, and communicative competence, providing a deeper understanding of their sustained effects on language acquisition.

REFERENCES

1. Abdykhalykova, A., Turusheva, L., Beysembayeva, Z., & Dukembay, G. (**2020**). Multimedia technologies in teaching a foreign language. *Rural Environment Education Personality*, *13*, 17-24.

2. Abdulrahaman, M. D., Faruk, N., Oloyede, A. A., Surajudeen-Bakinde, N. T., Olawoyin, L. A., Mejabi, O. V., ... & Azeez, A. L. (**2020**). Multimedia tools in the teaching and learning processes: A systematic review. *Heliyon*, *6*(11).
3. Coleman, L. O., Gibson, P., Cotten, S. R., Howell-Moroney, M., & Stringer, K. (**2016**). Integrating computing across the curriculum: The impact of internal barriers and training intensity on computer integration in the elementary school classroom. *Journal of Educational Computing Research*, *54*(2), 275-294.
4. Mayer, R. E. (Ed.). (**2005**). *The Cambridge handbook of multimedia learning*. Cambridge university press.
5. Guan, N., Song, J., & Li, D. (**2018**). On the advantages of computer multimedia-aided English teaching. *Procedia computer science*, *131*, 727-732.
6. Newton, J., Yates, E., Shearn, S., & Nowitzki, W. (**2010**). Intercultural communicative language teaching: Implications for effective teaching and learning. *Report to the Ministry of Education*, 1-90.
7. Nicholls, G. (**2002**). *Developing teaching and learning in higher education*. Routledge.
8. Spodark, E. (**2000**). Pedagogical applications for the single computer teaching station: a case study in French language instruction. *Computer Assisted Language Learning*, *13*(3), 291-295.
9. Skinner, B. F. (**2003**). Technology of teaching (271 p.). Copley Publishing Group. ISBN 158390025X, 9781583900253.
10. Thamarana, S. (**2015**). Role of multimedia resources in teaching and learning of English language. *Teaching English Language and Literature: Challenges and Solutions*, 187-192.
11. Thamarana, S., Kumar, S., Prabhakar, T., Gulivindala, S., Matta, V., Seela, C. R., & Ramana, P. (**2016**). Use of multimedia technologies in english language learning: a study. *International Journal of English Language Teaching*, *4*(8), 15-30.