



## Examining the impact of modern teaching technology and foreign language training methods in Kazakhstan's elementary schools

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### Abstract

Kazakhstan officially recognizes the early learning of a foreign language. Young students must still adjust to their new language environment when they begin studying a new school subject in the second grade as a foreign language. The use of modern technologies will provide favorable conditions for successfully mastering the necessary knowledge in the classroom and overcoming obstacles. In this regard, it is critical to identify key teaching strategies that promote English language learning. The study aims to evaluate modern foreign language teaching technologies and their effects on developing young students' positive attitudes and motivation towards learning English. For this purpose, EG (n = 110) and CG (n = 100) were identified in which pre-experimental and post-experimental activities were carried out. The study revealed that some of the children in the group lack motivation to learn English. The teacher only uses foreign-language texts from textbooks. Other texts are not used in the classroom that students might find interesting. Students' vocabulary in monologues and dialogic speech is monotonous and does not correspond to their age or accepted speech norms. The traditional approach to teaching English in primary school does not fully address many existing issues. The study's findings demonstrated that the integration of modern teaching technology and training methods into classrooms increases young students' positive attitudes and motivation to learn English.

**Keywords:** Elementary school, Foreign language, Investigating, Modern teaching technology, Training methods.

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### **Contribution of this paper to the literature**

This study adds to the existing literature by examining the effect of modern foreign language teaching technologies on developing young students' positive attitudes and motivation towards learning English.

## **1. Introduction**

Foreign language studies are mandatory in schools in Kazakhstan. A high level of intercultural competence that is established at the outset of education will allow schoolchildren to successfully adapt to modern society in the future. This fully meets the requirements set forth by the state educational standard for primary general education.

The "English" curriculum aims to achieve students' level of language proficiency through (1) a variety of tasks that promote analysis, evaluation and the development of students' creative thinking. (2) Various oral and written sources and (3) interesting and motivating subject content.

However, the majority of Kazakhstani primary school students' English proficiency does not meet the state educational standard for primary general education (Amanzhol, Amanova, Kerimbekova, Zholmakhanova, & Sarmurzin, 2024). At the same time, the first teaching stage's tasks remain resolved from a methodology perspective as follows: a) whether to teach the basics of a non-native language system, b) whether to develop a "sense of language" due to more general knowledge and c) whether to be objective towards bilingualism and use comparative general knowledge.

Many researchers correctly point out that teaching a foreign language in national schools falls far short of the standard (Ben Hammou & Kesbi, 2023; Whiting & Marshall, 2023). National schools are required to implement a consciously differentiated approach to teaching foreign language speech activity to students of various nationalities who speak native and non-native languages common in their regions of residence in addition to an individual approach (over ten languages in Kazakhstan).

However, work with students is carried out mainly directly, the style of communication is authoritarian and the principles of teaching integration, differentiation and individualization are not implemented (Zhakupova, Kyakbaeva, Karimova, & Omarova, 2022). Moreover, problems for students and their parents are caused by a lack of instructional materials and visual aids, a large amount of homework and increased demands on students which leads to additional classes with tutors (Kucherbayeva & Smagulova, 2023).

Several educational institutions in our country nowadays lack persistent access to the Internet and inadequate material and technical resources. In this regard, teachers find it extremely difficult to use modern technologies in the classroom without Internet access and students lack access to modern English materials. Many students struggle with learning a foreign language in an academic setting. It is often associated with low self-esteem and the presence of a feeling of awkwardness and anxiety which negatively affects progress in language acquisition (Al Muqarshi, Al Adawi, & Al Bahlani, 2024).

Education policies provide possibilities for all children to learn English but in practice, there is frequently an urban-rural divide because of a lack of qualified teachers especially English language teachers and an unwillingness to work in rural schools (Wang, Young, Iqbal, & Guckin, 2023).

It is detrimental to physical and mental health, resulting in a loss of positive motivation to learn a foreign language and an interest in learning in general. Teaching a foreign language is most effective when the child understands rather than just remembers, the principles of constructing a phrase in a non-native language (Le & Nguyen, 2023).

School is regarded as the best time of life to learn a foreign language. However, only a small percentage of Kazakhstani schoolchildren speak English fluently. What is this related to? Should the school only teach the child the basics of the language? Is the problem due to a lack of qualifications among teachers? It is necessary to identify and address the major challenges of teaching a foreign language to improve the situation. The content of the curricula makes this less likely despite the teachers' intention to improve learners' learning of foreign languages. There is still an insufficient level of professional competence among teachers to achieve learning goals (Tseng, Pilcher, & Richards, 2020). There are no educational resources (question sets, online resource libraries, adapted graded texts, etc.) designed to develop critical and creative thinking. There is an excessive study load among students.

In this regard, teaching English to primary school students is a very pressing problem for domestic educational practice (Park & Paulick, 2024). The search for answers to the questions posed determines the structure and content of our research.

The solution to these tasks is dependent on educational institutions, teaching staff and the teaching technologies introduced into the educational process. In this regard, the strategy for early school foreign language teaching (hereinafter referred to as foreign language) should be designed according to the school's new priorities in the twenty-first century (Tajik et al., 2023).

Today, there is a growing call for a transition to teaching technology with teachers' desire to improve the quality of teaching. If the child is assigned the role of an object in traditional pedagogy, the child is treated as a subject of educational activity, as an individual striving for self-determination and self-realization in modern pedagogy (Gamage, Dehideniya, & Ekanayake, 2021; Shah, 2020).

Thus, teaching English to primary school children is fraught with difficulties. These problems include students' lack of vocabulary acquisition, poor concentration, a lack of parental support, a lack of discipline and speech problems. Such obstacles can only be prevented through creative research and the use of new technologies.

### **1.1. Research Questions**

Q1: What kind of modern teaching technology and training methods should be used in elementary schools to ensure that young learners develop positive attitudes and motivation towards learning English?

### **1.2. Objectives**

The study aims to evaluate modern foreign language teaching technologies and their effects on developing young students' positive attitudes and motivation towards learning English.

The research hypothesis is that the integration of modern teaching technology and training methods into classrooms will increase young students' positive attitudes and motivation to learn English.

## **2. Theoretical Framework**

### **2.1. The Issue of Teaching Early English in Elementary Schools**

Research and analysis of the age data of junior school students show that this specific age is the most productive period for acquiring knowledge, skills and abilities when learning a foreign language (Hernandez, Bodet III, Gehm, & Shen, 2021; Munna & Kalam, 2021; Waddington, 2019; Wang, Wang, & Shi, 2022).

Researchers believe that motivations need to be developed for every speech and non-speech action students engage in to learn a foreign language efficiently when teaching them methods of communication and activities. (Dalim, Sunar, Dey, & Billinghamurst, 2020). Researchers highlight the main benefits of early learning a foreign language: a positive impact on the child's general speech abilities; an earlier entry into universal culture through communication in a new language; a positive effect on the development of various mental functions (memory, thinking, perception and imagination); improving the quality of proficiency in their native language and providing a foundation for continuing their education in primary school.

Researchers identified a relationship between foreign language teaching methods and psychology (Dewaele & Pavlescu, 2021; Yu, 2022). During this period, the child's psychophysiological maturation is associated with active subject activity and business communication with adults, speech, arbitrary behavior, developing the need to communicate with peers, symbolic games, self-awareness and independence. Children of this age have a high level of sensitivity to environmental information which is associated with physiological changes in brain structures and elements of higher nervous activity as well as the individual's mental development accompanying this process. Contact with peers is critical for a child's mental life during this period. However, individual characteristics of the child with communicative function disorders can become a source of psychological difficulties in communication. Researchers pointed out that the most obvious psychological difficulties of lower-grade school children are: violation of communication behavior, extreme emotionality, unsupervised behavior and high sensitivity to peer influence (Pianta et al., 2020).

According to the researchers, modern school children have an ambivalent attitude towards foreign languages as academic subjects and lack motivation to learn them. Reasons for poor student performance are often attributed to deficits in academic skills and cognition (Muftah, 2022; Pham, 2021). However, non-cognitive factors can also influence academic performance. It is difficult to separate academic achievement from an individual's motivation, self-identity, beliefs, goals and cognition. According to Korpershoek, Canrinus, Fokkens-Bruinsma, and de Boer (2020) and Pascoe, Hetrick, and Parker (2020), it is important to take into account such non-cognitive factors as the attitude towards learning, belief in the value of education, the emotional involvement of students, readiness to learn, self-esteem, self-confidence, determination, ability to overcome difficulties, etc.

There has always been a question in teaching theories and methods: "What is the best method of teaching English?" Linguists have argued this point from various perspectives based on academic research. It is impossible to say that one method is superior to another. Furthermore, applying the same method to all students with different goals, conditions and learning needs is not always possible. Determining the guiding principles of teaching, priority teaching strategies and organization of an English lesson contributes to its effectiveness.

Various approaches to the development of a junior schoolchild's personality with problems of multilingualism and multiculturalism (intercultural approach) were found during the study (Martin, Perfecto, & Too, 2023). The issue of foreign language teaching methods has been considered by many researchers such as Liu (2022), Zacharias (2019), Şengül and Türel (2019), Rudolph (2019) etc. During the research, it was discovered that a certain number of studies have now been accumulated that reveal the characteristics, patterns, conditions, methods, and means of developing creative potential in students in various lessons as part of educational activities (Isaksen, 2023; Zbainos & Tziona, 2019). At the same time, the issue of how creative people and creative potential develop is often addressed from the perspectives of psychology and pedagogy rather than foreign language teaching (Barton, Khosronejad, Ryan, Kervin, & Myhill, 2023; Scott-Barrett, Johnston, Denton-Calabrese, McGrane, & Hopfenbeck, 2023; Wang & Kokotsaki, 2018). These studies demonstrate two important elements of creative strategies for learning foreign languages: firstly, this strategy presupposes freedom of choice (Koka, Khan, Ahmad, Wahab, & Khasawneh, 2024) and secondly, it acts automatically (Habók, Kong, Ragchaa, & Magyar, 2021) and allows you to connect to many resources. Third, strategy is born out of creative potential and realizes this potential (Li & Wang, 2023).

Many researchers believe that communicative methods for primary school children are on the cutting edge of foreign language teaching (Aslan & Thompson, 2021; Li, Xie, & Zeng, 2023; Nilsson, 2019). For example, Ayedoun, Hayashi, and Seta (2019) believe that the need to develop free oral speech is linked to the use of communicative techniques which allow you to overcome communication anxiety and reduce the language barrier.

There is a problem with concept substitution. Unfortunately, when using an interactive format, concepts are frequently substituted: "fast" is meant instead of "interactive." This is not surprising given the popularity of the so-called "easy and fast" method of language acquisition. The goal of this "methodology" is the execution of a communicative act and the rapid development of speaking skills. In fact, of the four main types of activities (reading, writing, listening, and speaking), the student is trained in only one type: speaking. Other activities are either deliberately excluded from the learning process (usually writing is most affected) or are used as a basis for speaking (mainly reading). Consequently, the side effects of this "method" of overcoming the language barrier and rapid foreign speech are the students themselves who have internalized and reinforced unacceptable phonetic, grammatical, lexical and stylistic errors in their speech. For an individual who does not strive to master a foreign language at a professional or academic level, a minimum set of vocabulary for carrying out a primitive communicative act may be quite sufficient. However, such a "methodology" is negatively impacted by a student

striving for an academic and professional level since it becomes almost impossible to teach him the correct foreign language.

### 3. Method

#### 3.1. Research Method

The study is being addressed using both qualitative and quantitative methods. An integrated analysis of these two groups of data revealed the criteria used by the participants when making this or that assessment of similarity and revealed that the participants' strategies for describing similar and different objects differed.

#### 3.2. Research Sample Formation

The experimental group (EG) consisted of 110 fourth-grade students from secondary school No. 42 (Almaty, Kazakhstan) while the control group (CG) consisted of 100 fourth-grade students from gymnasium No. 188 (Almaty, Kazakhstan). The participants' average age ( $N = 210$ ) was 9-10 years old as the study was conducted among elementary school students in grade 4.

#### 3.3. Measures

General sociometric indicators such as gender, age, school and classroom were collected from study participants (see Table 1).

**Table 1.** Descriptive information provided by respondents.

Descriptive information about a respondent's		Quantity	Sample
Gender	Female	122	100%
	Male	88	100%
Age	9-10	210	100%
Class at school	4	210	100%
EG	Secondary school no. 42	110	50%
	Male	42	41%
	Female	68	59%
CG	School gymnasium no. 188	100	50%
	Male	46	48%
	Female	54	52%

#### 3.4. Description of the Design and Intervention

The following are the consequences of the experiment's design which aims to teach participants a foreign language (English):

a) identify the characteristics of Kazakh students who are starting to study English based on an intermediary language (Kazakh or Russian) used in elementary schools, b) apply methods of providing individual assistance in and out of class, c) apply modern teaching technologies and select material for various models and exercises necessary at different levels and stages of training, and d) rely on the conscious assimilation of materials in the process of foreign language speech activities.

This study compared the EG and CG using a design that included both pre- and post-experimental data.

The frequency of classes is 2 hours a week for 45 minutes. The implementation period is from October to April of the academic year. The program is designed for 29 academic weeks.

Secondary School No. 42 has the necessary material and technical base to ensure the organization of the experiment. The role and function of the school in promoting English as an important subject were critical. Classes are held in a permanent office equipped with a computer and equipment for demonstrating audio and video materials (TV, classroom blackboard). The teachers involved in the program's implementation are primary school teachers with higher pedagogical education have passed a medical examination and have no restrictions on teaching.

The educational process is equipped with modern technical means, visual aids and game props in order to achieve high-quality results.

The lesson is visualized, evoking positive emotions in students and creating conditions for the successful activities of each child with the help of multimedia elements.

Forms of organization of activities:

1. Speech and phonetic warm-ups.
2. Games, role-playing games, dramatizations and songs.
3. Drawing.

The subject content offered in the program fully includes the topics provided for by the component of the state standard in foreign languages.

The programme of study aimed to teach all aspects of the language deliberately implying that learning by memorization should not be the primary objective. The experiment took into account the following conditions: the skill being formed has a sound form, an operation of choosing words, an operation of choosing a grammatical form, an operation of combining lexical units and a speech task.

In the EG, multimedia tools are used to specify tasks. The content of language multimedia programs is shown in Table 2.

In the CG, training followed a traditional curriculum focused mainly on working with the textbook Jenny Dooley's "Smiles," Pupil's Book for Kazakhstan, grade 4, which is used in Kazakhstan elementary school.

Two different approaches to teaching English in EG and CG are shown in Table 3.

**Table 2.** The content of language multimedia programs.

The didactic functions of language multimedia programs	Description of methodological functions of language multimedia programs
Multimedia	Traditional text materials as well as audio and video materials, graphic images, and animations greatly enrich students' language and cultural practices.
Interactivity	Multimedia programs allow students to control their speed of learning or repetition of educational material. These programs allow students to build individual educational trajectories when studying foreign languages and cultures.
Feedback	Multimedia programs can show the level of development of specific speech skills. Therefore, if a student completes a task at one level, the program will allow him to advance to a higher difficulty level. On the other hand, if errors are repeated frequently at one level of language proficiency, the program will move on to tasks at a less complex level.
Versatility	Language multimedia programs allow the development of lexical and grammatical skills in speech as well as speaking, listening, writing and reading skills.
Multi-level educational language materials	Language multimedia programs are developed with a focus on several levels of foreign language proficiency. This will allow students with higher levels of speech skills to use significantly more resources and materials offered by the multimedia program.
Autonomy	Language multimedia courses do not necessitate interaction among students while completing language tasks. This means that each student can use the program independently during out-of-class time for independent study or material repetition. This will help build him up with independent learning activities.

**Table 3.** Two approaches (author and traditional) to teaching English.

Approaches	CG (traditional approach)	EG (author's approach)
Organization of the educational process	The traditional approach to curriculum design is based on a linear structure, a uniform approach to teaching all students and an emphasis on transferring knowledge from teacher to student.	The author's approach consists of three components: a) conceptual (approaches and a set of teaching principles that implement them), b) substantive (linguistic, psychological and methodological components), and c) procedural (teaching methods and techniques and diagnostic tools).
Communication	Children do not have the experience, motivation and understanding of how to develop independently, so the teacher must decide how best to structure the process and what information needs to be conveyed at a particular point in time.	Availability of prompt feedback, active interpersonal communication and subject-subject relationships.
Children's attitude towards the form of the class	Children's attitudes towards learning English range from satisfaction to reluctance.	Children's attitudes towards learning English have a positive attitude.

### 3.5. Research Instrument

We used the following methods to collect data: (1) student oral interviews. (2) A conversation with foreign language teachers. (3) An English language proficiency test for elementary school learners.

### 3.6. An Oral Interview of Students'

The interview was aimed at identifying (1) the opinions of junior school children of English for their future, (2) students' ability to independently organize their educational work in the classroom and at home, (3) identifying difficulties that arise when learning English, and (4) identifying interesting and effective forms of work in English lessons.

Question 1: Is learning English important to you?

Question 2: What do you enjoy about English lessons at school?

Question 3: Do you find this subject difficult or not? Why?

Question 4: What is your favorite activity in English class?

Question 5: Do you know how to self-organize your work on the material in class and at home?

Question 6: Are you an active participant in class?

#### 3.6.1. A Conversation with Teachers

The content of the study was aimed (1) at identifying those modern educational technologies that teachers consider effective and use in their practice and (2) at identifying the readiness of teachers to use various forms of organizing students' activities in the classroom, which is required by the new standard.

Question 1: What difficulties do you face when working with fourth-grade students?

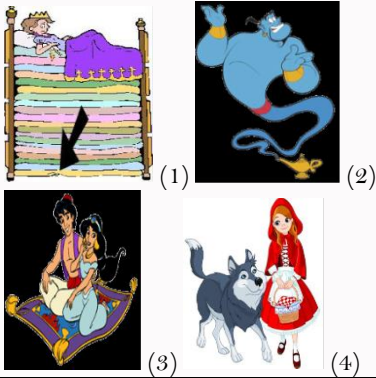

Question 2: Which modern educational technologies or techniques do you employ in your lessons with primary school students?

Question 3: What do you see as the primary goal of learning a foreign language in elementary school?

#### 3.6.2. An English Language Proficiency Test for Elementary School Learners

The test is aimed at revealing the level of knowledge and skills (see Table 4). Duration: 40 minutes.

**Table 4.** The content of the test.

Interconnected topics	Strand	Objective	Task №	Task description	Total marks
Kazakhstan's involvement in sports	Listening	Recognize the main idea, key points and important details in a text.	1	Matching activity. Students are exposed to the narrative on two separate occasions. They must arrange the images in the correct order using numbers.	4
	Reading	Recognize basic opinions in brief, simple texts	2	Mark the statements as true (T) or false (F). Fill in the gaps according to the text.	5
Myth and legends values	Writing	Mastering elementary linguistic concepts is essential for mastering oral and written speech.	3	The task is open-ended. You need to choose a picture to describe and write four sentences. 	4
	Speaking	Briefly describe and characterize an object, picture or character.	4	Conversation with the teacher. Answers and questions are based on pictures. 	5
Total					18

**3.7. Statistics Analysis**

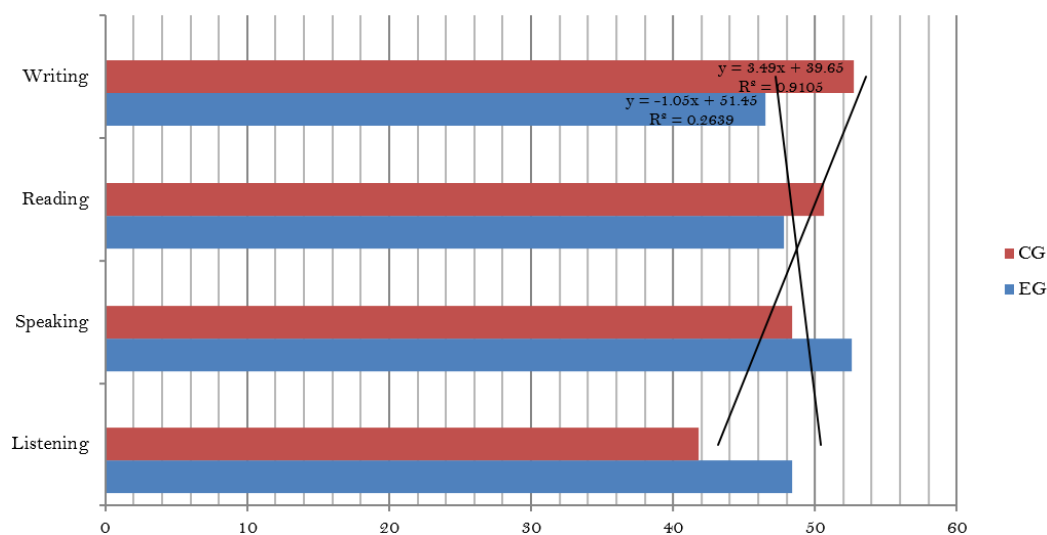
Statistical data was processed using the International Business Machines Corporation IBM SPSS Statistics program (version 26.0 for Windows). Categorical data were described using absolute values and percentages. Quantitative indicators with a normal distribution were described using arithmetic means (M) and standard deviations (SD) which served as the 95% confidence interval limits.

**4. Results**

Students' levels in four types of speech activities were identified in the completed test (see Table 5 and Figure 1).

**Table 5.** Students' levels in four types of speech activities.

The types of speech activities	CG (n=100), %	EG (n=110), %
Listening	41.6	49.5
Speaking	49.7	53.3
Reading	50.2	48.9
Writing	52.5	47.3



**Figure 1.** Participation rates in various types of speech activities among EG and CG students.

During the assessment, a group of participants was identified based on their initial level of speech-related skills: listening in the EG (48.4%) outperformed the CG (41.8%) by 6.6%. The EG (52.6%) has a 4.2% higher speaking rate than the CG (48.4%). The reading for EG (47.8%) is 2.8% lower than that of CG (50.6%). EG's writing rate (46.5%) is 6.2% lower than CG's (52.7%). The performance coefficient (in percentage) demonstrates that the proficiency in four types of speech activities identified as a result of completed tasks and tests by participants in the EG (experimental group) and CG (control group) is more or less the same.

Answering the first question of the interview, students identify three areas of application of English in their lives: 88 students (52.4%) need English "to travel and see other countries" and "to know what to say when meeting a foreigner", 59 students (22.4%) need English to "be a translator" and "get a good job" and 63 students (25.2%) need English to "study abroad." Thus, all respondents recognized the need and importance of knowing English in modern times prioritizing the communicative motive of learning.

According to the question, "What do you enjoy about English lessons at school?" 57 students (35%) responded by "learning new words" and "making sentences with foreign words." 37 students (18%) like to "speak English," "answer questions," "speak in dialogue with a neighbor" and "talk about yourself and your family." 30 students (17%) prefer reading, playing and listening to songs and dialogues in English. 20 students (7%) like doing "all sorts of interesting tasks" and 15 students (6%) noted that they like everything they do in English lessons. 13 students (5%) like to "write dictations and tests", 12 students (5%) do not like anything. I would like to note that 10 students (4%) really like "doing projects and presentations." 16 students (3%) did not answer. They also point out that games, reading stories, drawing, songs and poetry are the most effective ways to learn English words.

The answers to the third question allow us to identify the difficulties that primary school children face when learning English. 62 students (35%) say the subject is difficult because it is not interesting to work on in class. 58 students (25%) express concern about the proposed material's complexity: "I cannot learn words," "I do not understand how to read," "It is difficult for me to speak English". 18 people (6%) say they do not understand the teacher's explanation and 13 students (5%) like the teacher's approach. Five students (three percent) did not respond to this question. 14 respondents (5%) have difficulties completing homework and final papers on topics. However, 40 respondents (21%) stated that they have "no difficulties" and "I always cook everything on my own" in English. Thus, the relationship between the nature of educational tasks and the level of difficulty for children is fixed. It is boring to work in class; the material is complex and uninteresting and the teacher's explanations are unclear.

The answers to the fourth question revealed that 44 students (20%) prefer to work in pairs. 40 (19%) respondents prefer to listen to the teacher's explanation. 32 respondents (16%) collaborate in groups. 20 students (11%) prefer to respond on the board. 19 respondents (9%) enjoy working from a textbook. 17 (8%) respondents stated that selecting tasks from a teacher is more interesting and effective. Working individually helps 32 students (18%) learn the material more effectively. Seven respondents (2%) did not provide an answer. Thus, it is clear that younger schoolchildren prefer to participate in collaborative activities both in groups and in pairs.

An analysis of the responses to the fifth question revealed that 47 children (21%) can independently organize their work on the material being studied at home while 52 people (25%) are in the classroom. 60 students surveyed (32%) are unable to organize independent work on the material in class: "I do not know how to do it," "it does not work" at home and 51 children (22%) state that they can cope with homework only with their mother's help. As a result, the majority of respondents were able to organize both in class and at home. However, many children are unable to work independently. It is reasonable to believe that children do not know how to do this because they do not work independently in English classes or because working independently is difficult (for example, using a textbook).

The analysis of the answers to the sixth question leads us to the following conclusions: 84 respondents (44%) do not always actively participate in the lesson. 42 students (20%) are always active because they prepare homework are interested and can deal with the teacher's assignments; they receive high marks for active participation in the lesson. 75 children (33%) are rarely active. Nine students (3% of the sample) did not respond. School children identify the primary reasons for passivity in class, complex and incomprehensible material: "I have forgotten my English a little," "It is difficult," "I frequently do not understand new material," "I forget," "I do not know the words", bored in class: "We do not play much in class," "boring," "I frequently have headaches I am tired." "I do not get enough sleep." Thus, we see that the majority of schoolchildren are either inactive or do not participate at all in English lessons citing difficulties in learning lexical and grammatical material as the primary reasons. Teachers of English in primary schools do not know, do not consider the age and psychological characteristics of primary school students or do not have the methods and techniques to help children remember new vocabulary and incorporate it into their speech, learn new grammatical material and apply it in oral speech.

However, when interviewing younger schoolchildren, the following contradiction emerged: on the one hand, students understand the importance of English in their lives and want to study it, they are interested in working in pairs and groups and discovering new knowledge. On the other hand, they say that working in lessons is boring and the teacher's explanations are not always clear to students. The motivation of some children in the group to learn English was low. These learners have a short attention span and quickly lose interest in the topic. This contradiction emphasizes the importance of developing methods and forms of collaborative educational activities for students and teachers in the classroom in order to achieve educational outcomes.

The results of the conversation revealed that junior school children's mastery of lexical material does not fully meet the curriculum requirements. In the four years of learning a foreign language, students' vocabulary ranges from 400 to 500 words. However, as the students' progress, their vocabulary does not grow but also decreases due to forgetting. Students' monologue and dialogic speech lack lexical variability, the vocabulary they use is monotonous and does not correspond to their age or accepted speech norms. Consequently, the traditional approach to teaching English in primary school does not fully address several existing issues. According to the responses, the most difficult aspects of working with fourth-grade students are low motivation to learn English, students' difficulty memorizing lexical material and difficulty memorizing grammatical material. As a result, the vast majority of respondents report difficulties learning lexical and grammatical material from textbooks. It is reasonable to assume that teachers are unfamiliar with methods and techniques for assisting children in

remembering and incorporating new vocabulary into their speech. Teachers make poor use of interactive technologies. Teachers believe that the primary goal is to improve students' ability to speak English at an elementary level while also increasing their motivation to study the language.

In the second stage of the experiment, researchers and practicing teachers modified their approach to teaching English.

I. The algorithm for using language multimedia programs is: (1) determining the learning goal; (2) selecting and structuring the content; (3) setting the level of training; (4) choosing the multimedia teaching aids used; (5) developing training exercises, tests and tasks to monitor the mastery of the discipline content; (6) developing the structure by planning and conducting training sessions and (7) determining a set of methods and techniques for organizing the educational and cognitive activities of students.

II. A task system through language multimedia programs includes tasks for developing students' speech skills (by type of speech activity) as well as exercises for developing language skills: (a) exercises for performing actions by analogy; (b) differentiation exercises; (c) substitution exercises; (d) transformation exercises; (e) reproductive exercises and (f) matching exercises.

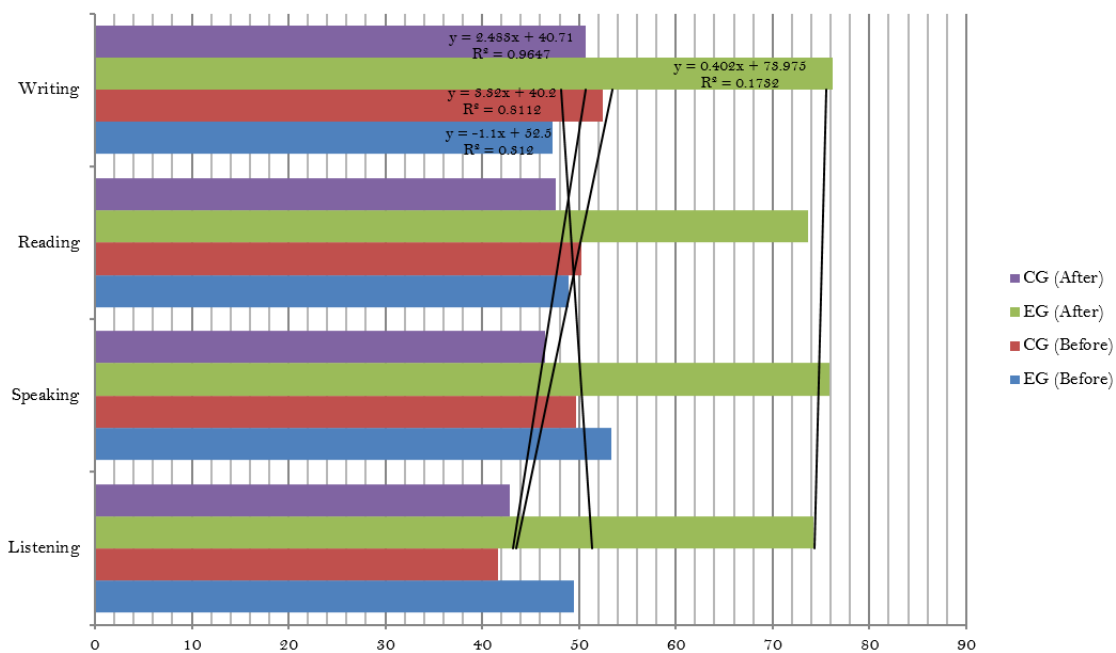
III. Using role-playing as a form of education.

The learners take part in the gameplay while simultaneously learning the sociocultural component of a foreign language, memorizing educational material more effectively and quickly and learning to use it for real-life purposes to achieve educational success.

We repeated the research methods during the control stage. In the control stage, students' levels in four types of speech activities were also determined (see Table 6 and Figure 2).

**Table 6.** Results of students' knowledge level in four types of speech activities at the control stage.

The types of speech activities	Beginning of the experiment (%)		End of the experiment (%)	
	CG	EG	CG	EG
Listening	41.6	49.5	42.8	74.18%
Speaking	49.7	53.3	46.52	75.83%
Reading	50.2	48.9	47.65	73.67%
Writing	52.5	47.3	50.7	76.24%



**Figure 2.** Participation rates in various types of speech activities among EG and CG students at the control stage.

Thus, the EG results in the development of speech activities outperform the control group's results. For example, listening improved from 49.5% to 74.18%. As a result, a 24.68% increase was discovered. The speaking skills of learners improved by 22.53% from 53.3% to 75.83%. The reading speed increases from 48.9% to 73.67%. As a result, a 24.77% improvement in reading speed was discovered. Writing scores had increased by 25.54% by the end of the experiment with the literacy of learners rising from 50.7% to 76.24%.

Table 7 shows the monitoring of students' knowledge levels in two types of speech activities (listening and speaking).

**Table 7.** The monitoring of students' knowledge levels in two types of speech activities.

Stages of the experiment or groups	Ascertaining stage	Control stage	Absolute increase
EG	Av = 1.5	Av = 2.36	G = 0.92
CG	Av = 1.364	Av = 1.786	G = 0.4
Efficiency coefficient	EC = 1.02	EC = 1.307	-

Table 8 presents data on the statistical significance of the  $\chi^2_{emp}$  criterion.

**Table 8.** The empirical value of the  $\chi^2_{emp}$  criterion.

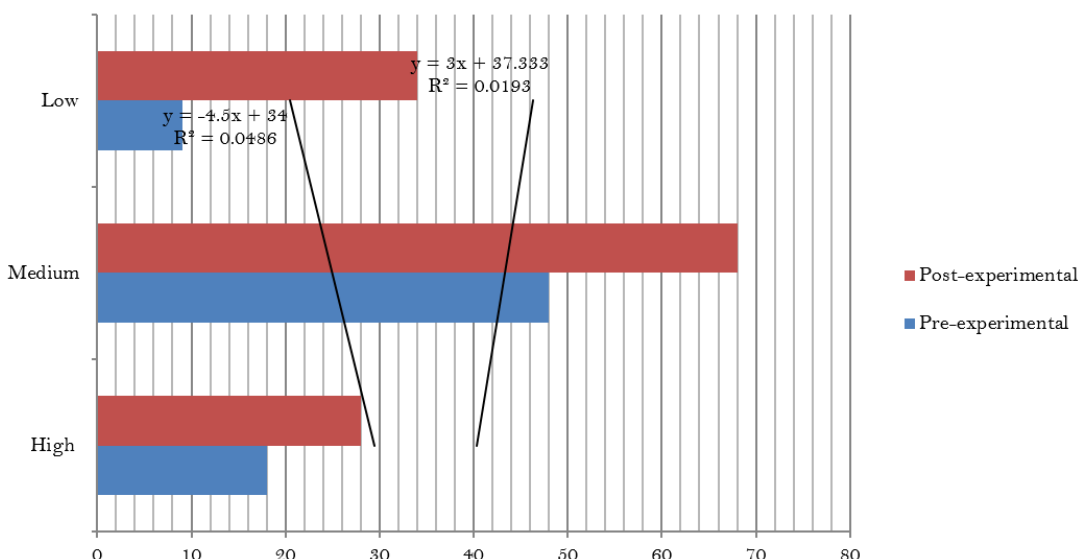
Stages	The empirical value of the $\chi^2_{emp}$ criterion	
	Speaking	Listening
Ascertaining	0.6812	0.58
Control	12.65	10.098

It was identified by comparing the critical value and empirical coefficient values on an ordinal scale that:

1) At the ascertaining stage, the characteristics of the compared samples of the EG and CG coincide because the value of the empirical coefficient  $\chi^2_{emp}$  for each of the components is below critical.

2) At the control stage, the empirical coefficient is greater than critical ( $\chi^2_{emp} > \chi^2_{0,05}$ ). Thus, we can conclude that the changes in the level of change in the dynamics of the growth of listening and speaking skills among students in the EG are not due to chance but are a result of the method of teaching English being implemented.

Figure 3 shows a comparison of data from the EG pre- and post-experimental results.



**Figure 3.** EG pre- and post-experimental results.

The final results in the EG have improved both qualitatively and quantitatively when compared to the pre-experimental results indicating the learners' competence in educational and speech interactions. The high level increases from 18% to 28%. As a result, a 10% increase was observed. The medium level increased by 20%, rising from 48% to 68%. The low level dropped from 34% to 9% a 25% reduction.

### 5. Discussion

The study's findings show that modern teaching technology and training methods in classrooms promote young students' positive attitudes and motivation to learn English as evidenced by improved competence in educational and speech interactions.

The main finding of the research was that teaching English to primary school children is fraught with difficulties. The problems found vary depending on how they relate to students and teachers. Problems in learning English also arise among the students themselves. These problems include students' lack of vocabulary acquisition, poor concentration, a lack of parental support, a lack of discipline and speech problems. Another area of attention is that only a small percentage of school children speak English fluently. As a result, motivation to study decreases, and English becomes an unloved subject.

It is necessary to identify and address the major challenges of teaching a foreign language to improve the situation. The content of the curricula makes this less likely despite the teachers' intention to improve learners' learning of FL. This study's results show that there is still an insufficient level of professional competence among teachers to achieve learning goals (Rouffet, van Beuningen, & de Graaff, 2023).

The final period of education (4th grade) in primary school is a period of intensification of speech and mental activity. Consequently, the most intensive development of speech skills took place precisely during this period in conditions close to real communication situations.

The author's approach contributed to children's positive attitudes towards learning English. This approach also combined multimedia programs. This enabled students to access significantly more resources and materials provided by the multimedia program. The learners took part in the gameplay while simultaneously learning the sociocultural component of a foreign language, memorizing educational material more effectively and quickly and learning to use it for real-life purposes to achieve educational success.

The following organizational conditions were taken into account in teaching methods: (1) considering the learning objectives and improving the speech skills and abilities of primary school students, (2) the methodological correctness of multimedia didactic materials and (3) the presence of a clearly defined algorithm of learning actions for subjects of educational activity.

Each method is implemented using techniques.

1. The information-receptive method entails transferring knowledge from the teacher to the students using techniques such as explanation, story, conversation, demonstration, stimulation and motivation.

2. The reproductive method necessitates the use of a series of recommendations as well as stimulation and motivation methods to present to students the existing productive experience of engaging in educational activities while mastering English.

Traditional text materials as well as audio and video materials, graphic images and animations all helped students improve their language and cultural practices (Faridah, Irianti, & Fachriyani, 2020). The multimedia programs make students more aware of the need to control the rate at which they learn and repeat educational material. As a result, if a student completes a task at one level, the program allows him to progress to a more difficult level. In contrast, if errors are made frequently at one level of language proficiency, the program will move on to less complex tasks. Additionally, it encourages students to design their educational paths while studying English (Tarchi, Zaccoletti, & Mason, 2021; Zheng, Ye, & Hsiao, 2022). Students can use the program on their own time outside of class for independent study or material repetition. This helped them develop independent learning skills. In addition, our findings on the positive impact of multimedia language programs on the development of speaking, listening, writing and reading skills are consistent with the findings of researchers such as Mahdi (2022); Shofi (2020) and Vadivel and Beena (2019).

The effectiveness of a phased and multi-stage introduction of material was tested (introductory course, educational game stage and skill formation stage in a special block of lessons) using the developed series of training exercises. On the other hand, the technique of conducting training exercises as different components of the lesson structure was analyzed. The selected material was presented in speech samples which were introduced and varied at various stages of training. The types of training exercises that collectively develop all types of speech activity have changed. In addition, the proportion of learners reading and listening increased. The familiar text aided the development of children's speech activity as they learned English outside of its natural context.

In EG, children learn sounds, words and structures in simple and at the same time, real-life speech situations in which they must express their thoughts, feelings and desires with peers. Children are encouraged to discuss in English topics that are important to them in their daily lives, such as home, birthdays, animals and toys. A variety of exercises, songs, poems and games assist students in remembering the material they are studying more easily and quickly as well as broadening the linguistic horizons of younger schoolchildren. Creating situations that are similar to real-life situations encourages children to think and speak in English.

Thus, integrating modern teaching technology and training methods into EG demonstrated: (1) the communication issue has been resolved and fully adheres to the logic of the statement by learners; (2) learners demonstrate the ability to initiate and maintain dialogue; (3) learners demonstrate good vocabulary appropriate to assigned tasks by understanding interlocutors and answering questions quickly and vocabulary is used appropriately; (4) learners use a variety of grammatical structures. In more complex structures, it allows for a small number of errors that do not interfere with understanding; (5) the learners speak clearly: there are no phonemic errors, all sounds in the speech stream are pronounced correctly, and the rhythm and intonation patterns of the sentences are correct.

Consequently, the integration of modern teaching technology and training methods into classrooms increases young students' positive attitudes and motivation to learn English (Erbas, Çipuri, & Joni, 2021; Luthfiyyah, Hafifah, Ivone, & Tresnadewi, 2021).

## 6. Conclusion

In a nutshell, this study examined the modern teaching technology and training methods that should be used in elementary schools for early foreign language mastery to ensure that young learners develop positive attitudes and motivation towards learning English.

Our findings revealed that some of the children in the group lack motivation to learn English. The teacher only uses foreign-language texts from textbooks. Other texts which students may find interesting are not used in the classroom. Students' vocabulary in monologues and dialogic speech is monotonous and does not correspond to their age or accepted speech norms. Second, the results show that the traditional approach to teaching English in primary school does not fully address many existing issues. In this regard, the traditional forms of subject-object relations between teachers and students as well as frontal questioning and control methods were not acceptable in the context of the experiment. The teacher allowed each student to express their thoughts and ideas freely and encouraged research independence and creativity to establish subjective relationships with the young learners. In the classroom, multimedia tools were used to specify tasks that aid in the collection of information as well as the most effective study, consolidation and application of the learned material in practice. The algorithm for using language multimedia programs was developed that includes (1) determining the learning goal; (2) selecting and structuring the content; (3) setting the level of training; (4) choosing the multimedia teaching aids used; (5) developing training exercises, tests, and tasks to monitor the mastery of the discipline content; (6) developing the structure by planning and conducting training sessions; and (7) determining a set of methods and techniques for organizing the educational and cognitive activities of students. A task system through language multimedia programs included tasks for developing students' speech skills (by type of speech activity) as well as exercises for developing language skills: (a) exercises for performing actions by analogy; (b) differentiation exercises; (c) substitution exercises; (d) transformation exercises; (e) reproductive exercises and (e) matching exercises. Thus, the study's findings demonstrated that the integration of modern teaching technology and training methods into classrooms increases young students' positive attitudes and motivation to learn English.

## 7. Limitations and Additional Future Directions

This study does not claim to be a comprehensive study of modern foreign language teaching technologies but it can be expanded to foster young students' positive attitudes and motivation to learn English. Some of its features warrant a more thorough investigation.

1. In the future, researchers might investigate the most effective ways to increase students' speech activity in foreign languages in primary school.

More methodological research should be conducted to develop scientifically grounded and practice-oriented teaching methods that promote learners' communicative and speech development.

3. It is necessary to investigate the development of foreign language creative strategies among junior schoolchildren in additional English classes.

4. It is significant and relevant to the development of a scientifically sound method for game-based educational process organization in teaching English to primary school children in a multilingual school.

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