Formation of speech activity of primary school students in foreign language teaching through technology integration

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Abstract

The aim of this study is to create an activity by means of technology integration in the foreign language learning of primary school students. A quantitative research method was used in the study. The research was conducted in the fall semester of 2021–2022. A total of 248 voluntary primary school students who continued their education in Kazakhstan participated in the study. In the study, 3 weeks of online education, English education and mobile technology education were provided to elementary school students. In the study, the 'technology in education' measurement tool developed by the researchers and compiled by experts in the field was used. The measurement tool was delivered and collected by online method to primary school students. The analysis of the data was carried out using the SPSS programme; frequency analysis was carried out with *t*-test; and the results obtained were added to the study accompanied by tables. According to the results of the research, it was concluded that the technology and foreign language learning status of primary school students was high and the technology status was high at the same time in their English education.

Keywords: Technology Education, English Education, Elementary School Students, Distance Education

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1. Introduction

Nowadays, education is one of the areas where changes are taking place as technology affects the transformations in every field. People are working to ensure that individuals brought up with a combination of education are individuals who have mastered technology, have access to information and use this information (Capuyan et al., 2021). The right of every individual to have access to information and communication technologies, the acquisition of information and technology literacy to individuals and individuals earning the qualifications to be able to use these studies in educational policies lifelong performed purposes are observed among the important countries (Albanian et al., 2021). This process, called technology combination or integration in education, is thought to be aimed at both enabling students to use these technologies and a more effective learning process by including current technologies in educational environments and educational programmes (Salama et al., 2021). Technology integration has different definitions. The various technologies used by teachers to target student learning are also defined as all types of technologies that increase student interaction during education (Karim et al., 2021). Within the scope of technology integration throughout the world, projects aimed at using current technologies in educational settings are being carried out. The establishment of computer laboratories in schools, teachers up to date on the use of technology in-service training, educational programmes and technology integration are to be included in one of the work to date on technology mergers (Jahangard et al., 2020). Projects and studies on the integration of technology in education are of serious importance, and it is believed that including such studies will contribute to the field and students (Valdebenito Zambrano et al., 2021). Studies are being carried out to make educational programmes suitable for technology-supported education. In addition to the fact that the integration process requires the teacher to be active in the classroom, primary school provides convenience to the teacher in terms of making it easier for students to understand the process. In addition, students note that they find technology-supported learning environments more flexible and easier and faster to access information (Tahini et al., 2022). In addition, these environments are student-centred environments that provide social learning and self-management in addition to providing one's own learning. There is a teacher at the focus of integration, and although support is provided, most of the responsibility at all stages belongs to the teacher (Jiang et al., 2022). According to the literature, the important factors affecting the process are the education that the teacher receives in educational settings and in the service, the knowledge gained, the right planning, the right management of the integration process and, most importantly, the ability to choose the appropriate method for the achievements (Bakirova et al., 2022). In this context, it is seen that the in-service trainings to be given to teachers will be beneficial for the technology integration of primary school students. In this context, it can be said that every step that teachers will achieve in technology integration is the basis of primary school students.

Foreign Language Classes and Communication Training

It is a process in which many stakeholders, such as primary school, family, teachers, system makers, school/university administration, unite around. It is also a sociocultural functional structure with a cultural dimension. There are many factors that have an impact on the educational success of primary school students. Some of them can be listed as the student's mental capacity, affective

characteristics, teaching service and teacher's qualification, the socio-economic status of the student, classroom or school conditions (Maican et al., 2021). These factors can be broadly classified into individual, environmental and organisational. In this regard, it is important for schools to change the negative elements in education to positive or to develop some measures in schools in terms of the continuity of education (Kupchyk et al., 2021). Today, within the framework of the requirements of online courses, classroom environment, given cultural differences in terms of different communicative problems and potential problems that may arise be resolved within the framework of distance education, is quite important (Toyama et al., 2021). It is natural that foreign language classes, where there are individuals who do not coexist in a physical environment with traditional methods, and probably belong to different cultural circles, cannot meet certain standards in online environments. In order to minimise this situation, to ensure success and continuity in education, communication-oriented technology tools can be used to facilitate the development of communication equipment in the classroom environment.

1.1. Related Studies

Yilmaz et al. (2019) in the year of the work they have carried out in relation to foreign language teaching in early childhood education attempted to provide an analysis of the work and the use of technology in their work. Multimedia in education, digital technology, instructional technology and technology integration have been used in studies indicating that instructional support is provided for supporting new technologies in foreign language training. As can be seen from the research, foreign language learning contributes with the help of technology. It is becoming important that technology meets students at the right place and time.

Horbatiuk et al. (2021) in the work conducted in the year of foreign language training of students of the future in energy engineering focuses on the results of experimental studies on the formation of a training environment that is intended to address. As a result, advanced education, the environment, successful learning of a foreign language, creative thinking and development of communication skills of engineering students concluded that the energy is strengthened. Once again, it is seen that technology assistance contributes to every field as well as being effective in reinforcing the acquired behaviours of students.

Ibragimova Feruza Holboyevna et al. (2021) aimed to discuss the use of technology of semi-software in foreign language teaching and learning in their work (introduction of computer, multimedia technology and global information computer network). As a result, they came to the conclusion that in modern conditions, given the great and serious interest of students in information technology, this opportunity can be used as a powerful tool to improve motivation in English lessons. In this context, it is seen that the research conducted in this context is effective in teaching foreign languages and in motivating them.

When the relevant research conducted in this context is considered, it is seen that technology provides benefits in foreign language teaching. With the combination of technology in education, it is expected that positive ideas will always be instilled in students. It is thought that repeating such studies will benefit both the field and the students in the field.

1.2. Purpose of the Study

The aim of this study is to create an activity by means of technology integration in the foreign language learning of primary school students. The answers to the following questions were sought for the general purpose of the study:

1. What is the technology usage time of primary school students?
2. What is the usage time of foreign language education applications of primary school students?
3. What is the purpose of using computers and the Internet for primary school students?
4. How are the opinions of primary school students on technology and foreign language teaching according to the gender variable?
5. What are the opinions of primary school students on technology and foreign language teaching?

2. Method

In this section, information about which method was used in the study, which groups of students participated in the study, the type and source of the data in the study, the data collection tool and the statistics used in the study are included and organised.

2.1. Research Model

In the study, one of the research methods, quantitative research method, was used. A quantitative research method is a research method that aims to describe an event pattern that could not be continued previously with a model that exists, as well as to take a large part of the field (Caliskan et al., 2018). In this study, through the quantitative research method and after determining the effectiveness of primary school students in their foreign language learning through technology integration, the research of their use of these applications, gender, class and duration of education is described according to variables.

2.2. Working Group/Participants

The participation groups included in the study consist of 248 voluntary primary school students who are attending various primary schools in Kazakhstan. In the research, the measurement tool was applied to the students with the help of an online questionnaire and it was accepted.

Gender

In this section, the differences of primary school students according to their gender are given in Table 1.

Table 1. Distribution of Primary School Students According to the Gender Variable

	Male		Female	
Gender	F	%	F	%
Variable	129	52.02	119	47.98

When Table 1 is considered, the distributions of the primary school students participating in the study are determined according to the gender variable and the information is examined. In this

context, 52.08% (129 people) were male primary school students, while 47.98% (119 people) were female primary school students. In the gender section, the findings reflect the actual gender distribution.

Technology Usage Times of Primary School Students

In this section, applications with technology were given to primary school students for the development and consolidation of foreign language learning, and the technology usage times are discussed and examined. The studied values are digitised and added to Table 2.

Table 2. The Distribution of Elementary School Students Regarding the Time of Technology Use

Technology	1-2 Time		3-4 Time		5 or more hours	
	F	%	F	%	F	%
Variable	27	10.88	75	30.24	146	58.88

When Table 2 is examined, elementary school students' use of technology is also investigated and detailed information has been added. In this context, 10.88% (27 people) used technology for 1–2 hours, 30.24% (75 people) used technology in the range of 3–4 hours and 58.88% (146 people) used technology for more than 5 hours. It is also observed that the technology usage time is in the range of 5 hours and above and prefers primary school students to learn a foreign language in the research.

The use of foreign language education applications of primary school students

In this section, the situations of blended learning for elementary school students according to the time periods of daily use in the educational process are investigated and examined. Detailed information is given in Table 3.

Table 3. The use of foreign language education applications of primary school students

Foreign language education applications	1-2 Time		3-4 Time		5 or more hours	
	F	%	F	%	F	%
Variable	18	7.25	27	10.89	203	81.86

When Table 3 is examined, the timing and status of elementary school students of foreign language education practices and detailed information are given. In this context, 7.25% (18 people) expressed that the time used by the application for foreign language is 1–2 hours, 10.89% (27 people) expressed using the application in the language they use for 3–4 hours and 81.86% (203 people) expressed using the application for more than 5 hours. It is seen that primary school students prefer the use of foreign language education applications within the research for 5 hours and more.

Class Status

In this section, the class information of the primary school students in the study group was examined and detailed information is given in Table 4.

Table 4. Distribution of Primary School Students According to Their Class Status

Department	3rd Class		4th Class		5th Class	
	F	%	F	%	F	%
Variable	49	19.76	68	27.42	131	52.82

When Table 4 is examined, the distribution of the primary school students in the study group according to their class status is considered and the relevant information according to the class scale is provided. In this context, as shown in Table 4, 19.76% (49 people) are in the 3rd grade; the population was spread out, with 27.42% (68 persons) being in the 4th grade and 52.82% (131 people) are in the 5th grade. In the class distributions section, the findings reflect the actual distribution.

2.3. Data Collection Tools

In this section, it is seen that there is a measurement tool developed by the creators of the problem sentence in the research within the research. On the other hand, the data collection tool was examined by experts in this field on foreign language education and technology and the items that could not be suitable were removed from the study and corrected. A personal information form called the 'Technology in Education' measurement tool, which was applied to elementary school students and developed by researchers, was used. The validity of the scope of the measurement tool developed was examined by three professors who conducted studies on technology educational platforms and foreign languages, three experts with the title of associate professors and unnecessary items were removed from the measurement tool and re-arrangements were made.

1. Personal information form (demographic data): In the personal information form, information such as gender, technology usage times, foreign language applications education usage times and class were provided.

2. Technology data collection tool in education: A 5-point Likert-type questionnaire was prepared to obtain information about the creation of foreign language education with the help of technology for primary school students. A total of 16 items of the measurement tool consisting of 20 items were used and 4 items were removed from the measurement tool, thanks to experts' opinions. The opinions of primary school students from two factorial dimensions, such as 'Technology Education' and 'Foreign Language Education' of primary school students, were applied. Cronbach's alpha reliability coefficient of the measurement tool as a whole was calculated as 0.94. The scale was rated as 'I strongly disagree' (1), 'I disagree' (2), 'I am undecided' (3), 'I agree' (4) and 'I definitely agree' (5). The measurement tool was also collected online with the help of families from primary school students.

2.4. Application

The application part of the study by researchers in Kazakhstan volunteers who continue their education at various elementary schools in the area designated an elementary school student 248 and Microsoft Teams live events with the help of the preparation of planlatilm video programme has been training foreign language with the help of live lessons on technology applications and use cases in Microsoft Teams with the training programme was prepared and this event is organised by people

who are experts in the field of environment. When the activity part of the research is over, it is planned to show videos, applications and content related to technology integration and foreign language education for primary school students. Foreign language applications were sent to elementary school students and were expected to be used regularly. The 3-week training of primary school students in foreign language education and technology merge conditions, the terms of use and various techniques of learning, memory techniques and applications in determining how often and of course to use the live lessons on 'technology integration', 'foreign language' etc. Such information was provided to elementary school students in the form of live lesson training, and it was expected that elementary school students would participate in the event held every week on this topic. After 3 weeks of training, a measurement tool and an information form were applied to primary school students with the help of an online questionnaire, and the data are given in the form of tables in the findings section. Parents of the students were asked to help with the online survey. In Section 4, the application programme used by most universities and is distributed through Microsoft Teams education each section will be limited to designated elementary school students at more than 65 so next week is set to be distributed to each training programme training of 35 minutes and 15-minute question and answer in the form of a frame that has been processed in education elementary school student online, covering a total time of 50 minutes. If smartphone, tablet and laptop image by using devices such as computers and were expected to attend training with microphone. The measurement tool applied to primary school students was collected through an online questionnaire and transferred to the SPSS programme by coding them in the environment of calculation programmes.

2.5. Analysis of the Data

In the analysis part of the data, statistical data obtained from university students were analysed in the statistics programme using frequency (f), percentage (%), mean (M), standard deviation (SD) and *t*-test, with irai. The data obtained from the programme are given in tables accompanied by numerical values, findings and comments.

3. Findings

In this section, the findings related to the learning status of sports lessons of primary school students with a blended teaching method are given, and the data of the study are given in tables accompanied by comments.

3.1 The purpose of using technology devices and the Internet of elementary school students

The aim of using technology and Internet related to foreign language education of primary school students has been investigated and detailed information has been given in Table 5.

Table 5. The Aim of Technology and Internet Use of Primary School Students

Department	Foreign Language Sites		Foreign Language Applications		Other	
	F	%	F	%	F	%
Variable	110	44.35	132	53.23	6	2.42

When Table 5 is examined, the aim of using technology and Internet for foreign language in technology integration education by primary school students is investigated according to the problem of the study and related information is added. In this context, 44.35% (110 people) chose foreign language sites, 53.23% (132 people) chose foreign language applications and 2.42% (6 people) chose another field. In this context, it can be said based on Table 5 that according to the problem situation of the research, most of the segments turn to foreign language education in the problem situation based on the problem situation.

3.2 Technology and foreign language teaching opinions of primary school students according to the gender variable

In this section, the data obtained from the study and the opinions of primary school students on technology and foreign language teaching according to the gender variable were made according to the gender variable and detailed information is given in Table 6.

Table 6. Technology and foreign language teaching opinions of primary school students according to the gender variable

	Gender	N	*M*	SD	Df	t	p
Technology and foreign language teaching	Boy	129	4.62	0.22	248	0.282	.942
	Girl	119	4.58	0.19			

When Table 6 is examined, the opinions of primary school students on technology and foreign language teaching on the gender variable are examined and it was found that there was no significant difference according to the gender criterion [t(248)= 0.282 p<.05]. When the opinions of primary school students on technology and foreign language teaching are examined, it is seen that male students have an average score in this field (M = 4.62), while female students have an average score in technology and foreign language teaching (M = 4.58). In this context, in this study, it can be said that there is no difference between the technology and foreign language teaching scores of male primary school students compared to female students, and that the findings of the study in which their scores are high regarding the problem situation are also part of the findings.

3.3 Opinions of Primary School Students on Technology and Foreign Language Education

This section contains the opinions of primary school students on the views of technology and foreign language education. Detailed information is presented in Table 7.

Table 7. Opinions of Primary School Students on Technology and Foreign Language Education

When Table 7 is examined, the information technology situations of teacher candidates according to the gender variable were examined and it was found that there was no significant difference according to the gender criterion [t(306)= -1.239, p<.05]. When the ICT status of teacher candidates were examined, the male teacher candidates had an average score in this area (M = 84.55) compared to female teachers, with a mean score of M = 83.97 high. In this context, it can be said that there is no difference between the information technology scores of male students in this study compared to female teacher candidates in the findings of the research.

3.4 Information Technology Situations according to the age criterion

In this section, the use cases of information technologies according to the age criterion are examined and detailed findings are given in Table 8.

Table 8. Use cases of information technologies according to the age criterion

No	Opinions of Primary School Students on Technology and Foreign Language Education	*M*	S
1	I can take foreign language courses with technology at any time	4.61	0.42
2	I can use foreign language applications with technology	4.87	0.33
3	With the help of my parents and teacher, I was able to learn technology easily	4.71	0.42
4	I have adopted technology integration in a foreign language	4.63	0.58
5	My foreign language vocabulary has improved with technology	4.74	0.52
6	I can easily find everything I can think of on the Internet in a foreign language	4.85	0.39
7	I was able to easily connect to the courses I took with technology	4.76	0.48
8	I can pronounce a foreign language online	4.68	0.53
9	I can easily say every word I have learned in a foreign language after class	4.84	0.50
10	I can find every word I can't remember with technology	4.72	0.52
11	I can share every information I have learned with technology with my friends	4.77	0.52
12	It gives me pleasure to learn foreign languages with technology	4.80	0.52
13	The environment I was in while learning a foreign language with technology gave me pleasure	4.59	0.38
14	Foreign language learning has improved with technology	4.72	0.33
15	I would have been more successful if I had used technology in a foreign language earlier	4.86	0.28
16	I would also like to see the technology combination in my other courses	4.82	0.39
	Overall Average	4.74	0.44

When Table 8 is examined, it is observed that the views of elementary school students on technology and foreign language education specify each answer carries a different meaning. However, after the training of elementary school students' views regarding the value of high technology and foreign language based on Table 8, it can be said that the most obvious expression is 'I know how to use it with the Foreign Language Technology applications' (M = 4.87). In addition, it was found that one of the most obvious statements of the study was 'I would have been more successful if I had used technology in a foreign language earlier' (M = 4.86). It is seen that the opinions of primary school students about the field of foreign language and technology are quite

high, while another one is 'I can easily find everything I can think of on the Internet in a foreign language' (*M*=4.85). Other findings of the study are 'I can easily say every word I learn in a foreign language after class' (*M* = 4.84) and 'It gives me pleasure to learn a foreign language with technology' (*M* = 4.80). In addition, another value of the research is that 'I can share all the information I have learned with technology with my friends' (*M*= 4.77). Finally, when the overall average was considered, it was found to be *M* = 4.74.

When examining Table 8, it was found that elementary school students remember every word they learn in a foreign language, know every word they learn with technology again, easily say the foreign language terms they learn, can easily learn a foreign language that combines with technology, adapt to a foreign language and technology and can easily get used to this technology with the help of their families and respond more positively. In this context, it can be said based on the findings that the opinions of primary school students about technology and foreign language values are positive because all the values in Table 8 have a positive meaning.

4. Discussion

Kim et al. (2018) in their English education for children in the year of the work that was carried out in creative and are intended to be given training on using technology to help system and as a result, voice, audio, image and video besides providing benefits and support for your children's English training, they achieved in this technology themselves feel happy. When the results of the research are discussed, it is concluded that primary school students also contribute and benefit in foreign language education with the help of technology. In this context, it can be said that the technologies used in the research provide benefits for the development of foreign languages of primary school students.

Odinoka et al. (2019) in the year of the work they have carried out to optimise their activities in classroom and extracurricular activities the main purpose of technology in students and is intended to intensify, and as a result of the interaction of learning and ways of implementation the benefit of students and information technology awareness about the goals they achieved. In this context, it is seen that there are results that technology integration provides benefits to students in the findings that are among the results of the research. It is seen that the meeting of technology with students in an education provides benefits as in research. In addition, it is important that technology is well designed for students, it is believed that the preparation of technology well and the transfer of this method to students has the same meaning as success.

Azimbayeva's (2020) study on technology, on the basis of the use of information and communication technologies in foreign language teaching and learning, sought to deal with some issues, and as a result have reached results that are useful to students the benefits of language learning and remote. In this context, among the results of the study, it was determined that elementary school students did not have any problems with their live lessons and that they enjoyed the results. When studying foreign language studies with technology, it is once again seen that technology is advantageous. It is expected that this research will contribute to and benefit the field of writing.

5. Conclusion

When the results part of the study is considered, it is seen that the number of participants of the study comes first. As a result of the research, it was concluded that a total of 248 primary school

students voluntary participated. This is important for quantitative research methods the fact that the answers given in the research are more important for the problem situation. As a result, the number of 248 is directly proportional to the occurrence of the problem situation. Another result of the research was considered when the technology usage times of primary school students were examined and as a result, the results of the highest technology usage times of 5 hours and above were reached. In this context, in the research, it was concluded that technology usage time of primary school students to learn a foreign language is 5 hours and above for foreign language learning. It is important for primary school students to spend time with the help of technology to benefit their foreign education. Another result from the values given in this research was then in the hands when examined, the timing and status of foreign language education practices of elementary school students and elementary school students up to 5 hours and above as the most. As a result, it is seen that the preferred outcome is reached. It seems that this value is directly proportional to the previous value. It can be said that both the use of technology and the high use of foreign language applications are meaningful with the formation of permanent behaviours in education. Another result of the research is that the distribution of primary school students according to their class status was examined and related information was examined according to the class scale, and as a result, 49 people in 3rd grade, 68 people in 4th grade and 131 people in 5th grade. It has been concluded that there is a class.

Another result of the research is that the primary school students' technology and Internet usage goals for a foreign language in technology integration education were investigated according to the problem of the study, and as a result, it was concluded that they chose and used foreign language applications. In this context, it can be said that according to the problem situation of the research, it has been concluded that most of the segments are turning to foreign language education in the problem situation. When another result of the research was considered, the opinions of primary school students on technology and foreign language teaching on the gender variable were examined and it was concluded that there was no significant difference according to the gender criterion. In addition, it is seen that the results of the study show that the scores of male primary school students and female students regarding the problem situation are high. When the final result of the research was considered, the opinions of primary school students on technology and foreign language education were examined and it was concluded that each of them has a result and that the values are high. After the training of elementary school students regarding the value of technology and technology applications used with the opinions of foreign language foreign language, you know what, before they would be more successful if they use technology in a foreign language, foreign language everything that comes to mind with the Internet, they can easily find, what you said after class, they learned every word in a foreign language learning a foreign language easily and technology give them pleasure with the results that have been achieved. In addition, it was concluded that elementary school students remember every word they learn in a foreign language, know every word they learn with technology again, say the foreign language terms they learn easily, can easily learn a foreign language that combines with technology, adapt to a foreign language and technology and can easily get used to this technology with the help of their families and respond more positively.

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