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Implementing web applications in the English as a foreign language classroom to develop learners' productive skills: The case of Kazakhstan

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The paper reports the results of an exploratory quantitative study investigating the potential of VoiceThread and Flipgrid as learning tools for the development of learners' productive skills and enhancing learners' performance to provide the basis for continuing independent practice. The study involved a total of 39 students in a four-week English course; 19 students used the VoiceThread and Flipgrid software, and 20 students in a control group followed the same curriculum but without these web applications. Students carried out a weekly extended speaking task (storytelling) on a topic related to the curriculum. To prepare for this, they used VoiceThread and Flipgrid software to record and rehearse their presentation for other students and for the teacher to listen to and provide individual feedback. The recordings were analyzed according to the Speaking Assessment Scale. Questionnaires were used to investigate learners' perceptions of the task's value and of their performance and confidence changes over time. The results showed that regular VoiceThread and Flipgrid tasks help learners develop their productive skills, performance, and confidence in spoken English. Such voice-recording activities have the potential to improve speaking and writing and thus tackle the limitations on time, practice, and feedback inherent in classroom-based courses.

Keywords: web applications, web 2.0 tools, VoiceThread, Flipgrid, productive skills, scaffolding, technology-based teaching, English as a foreign language



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Introduction

Learning in the 21st century and the integration of technology into school and university curricula around the world are now the norm. English language learners are offered various online tools to advance their language skills (Conole, 2008), as well as effective collaborative and communicative work strategies (Thorne & Reinhardt, 2008). The use of technology in education in general and English as a Foreign Language (EFL) teaching and learning in particular is having an impact on educators and scholars as more educational institutions integrate new tools such as mobile phones into the standard classroom setting. Mobile phones as portable gadgets can be used in classroom self-recording by EFL students, and mobile self-recording techniques should be implemented in language classes to help students cope with their anxiety and reflect on their spoken language (Bouaziz & Ghouli, 2022). Using smartphones in the English classroom minimizes students' passiveness, encourages students to speak up, and makes students more enjoyable and decreases stress levels (Juniardi et al., 2020). This is especially true for Kazakhstani students, as they are good at grammar (Batyrova, 2021), but in real-life communication, it is hard for them to start speaking in English. A lack of English-speaking practice opportunities in the classroom causes problems with listening skills and feedback during speaking tasks. On the other hand, implementation of new technologies in teaching and learning process of EFL learners revealed some drawbacks, such as a lack of balance in the development of the four language abilities (Metruk, 2022), a lack of Information and Communication Technology (ICT) teachers' training and experience to integrate smartphones in EFL courses (Shelestova & Nabiyeva, 2023), and distractions caused by smartphones (Deng et al., 2022). Therefore, teachers should be open to adapting the use of different gadgets according to learners' needs, and different applications should focus on developing learners' productive skills in particular and on communicative competence, of which pragmatic competence is a crucial component in general (Kasper & Roever, 2005).

According to Fandiño's (2013) research, learners are more likely to learn a second or third language to achieve academic goals than to utilize it within a social context. As facilitators of students' knowledge-building processes (Ghazal et al., 2019), teachers have the opportunity to establish a dynamic, engaging, and stimulating learning environment for acquiring a foreign language by adapting Web 2.0 tools. For example, various web applications can have positive effects on English learning and teaching (Degirmenci, 2021). The Quizizz application, for instance, can serve as an effective tool to enhance students' reading skills (Pradnyadewi & Kristiani, 2021) and foster their writing abilities (Gustianti et al., 2021). Similarly, the Padlet web tool can improve speaking skills (Ta et al., 2023) and develop deductive thinking skills (Alastal et al., 2022). Additionally, utilizing the Kahoot application can offer an engaging

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learning experience with prompt and constructive feedback (Almanar, 2019). However, the main problem is the selection of suitable material from the whole variety of Web 2.0 tools as well as their integration into the methodology of teaching English (Shelestova et al., 2021), which can be useful in systemizing information, optimizing the educational process, organizing students' independent work, modernizing assessment forms, and increasing students' motivation and autonomy (Kalizhanova et al., 2018).

Therefore, it is important to select those means whose purpose corresponds to the actual problem of teaching foreign languages – the formation of communicative foreign language competence in students – taking into account the Common European Framework of Reference for Languages (CEFR) and standards for the use of technologies in the study or teaching of English as a foreign language (TESOL Technology Standards).

Meanwhile, the usage of Web 2.0 tools to evolve a second or third language in university settings has increased considerably, whereas little research or studies have been carried out implementing Web 2.0 tools in secondary or primary school settings. The study is designed to investigate the implementation of Web 2.0 applications in EFL classrooms within the context of secondary schools, specifically among 9th-grade students aged between 15 and 16 years old. The paper aims to assess the impact of using Web 2.0 applications, namely Flipgrid and VoiceThread, video and audio, and text applications, on the development of learners' productive skills in speaking and writing in English classes.

Literature review

Scaffolding in Web 2.0 based English instruction

The main reasons for choosing instructional scaffolding for teaching English are to make the learning process simple and clear and to avoid misunderstandings. Scaffolding is a method of assisting learners in progressing from incapacity to task performance through coaching (Bruner, 1978). To optimize the success of scaffolding, Vygotsky (1978) coined the term Zone of Proximal Development (ZPD). Brown (2014) described scaffolding as the “process of simplifying tasks for learners, of making critical features of the language, and of structuring a task for success as opposed to failure” (p. 191).

Salmon's (2003) model for scaffolding in online learning includes social interaction, motivation, and the use of information and communication technology (ICT). The concept is divided into five stages that instruct teachers on how to scaffold their students' learning throughout collaborative online learning processes, allowing students to become more independent while accepting responsibility for their own learning (Salmon, 2003). To effectively apply a scaffolding model, it's crucial to have appropriate web tools. As per Puntambekar and Hubscher (2005), web tools that offer procedural support are necessary for online scaffolding. Such tools assist with complicated tasks by limiting them, structuring scientific explanations and arguments, and simplifying the process of learning and knowledge construction.

Zhou and Wei (2018) carried out case study research where researchers employed the scaffolding technique as a digital organizer to develop learners' writing skills and metacognition through multimedia software. The metacognitive writing strategies researchers and instructors targeted were planning and organizing strategies, and the graphic organizer writing software was used to facilitate and consolidate the learning of the strategies. The software was employed as a scaffolding tool. Learners could use digital graphic organizers such as concept maps and brainstorming webs to illustrate their ideas easily through mapping qualities to plan and classify their thoughts by grouping related information together to organize. Students were provided with scaffolding whenever they felt a lack of scaffolding. Zhou and Wei (2018) compared learners' pretest and posttest results, and they revealed that learners had improved in every aspect of the criteria and had shown noticeable progress in their performance in generating ideas and writing prompts.

The research studies that were done concerning the utilization of Web 2.0 applications as a scaffolding technique vividly demonstrated positive outcomes.

Web 2.0 applications as motivational tools

The use of technology and increased student motivation were influential factors in teachers' use of technology in the EFL classroom. The researchers confirm that EFL learners' achievement is influenced by motivation (Derakhshan et al., 2021; Ehrman & Oxford, 1995; Gardner, 2010; Pawlak et al., 2021; Riding & Cheema, 1991). Motivation is defined as an internal drive that motivates people to do activities in order to achieve their desired outcomes (Harmer, 2007; Melhe et al., 2021). Brown (2014) describes motivation as the simple anticipation of reward for achievement. Further, Brown (2014) states that in language learning there are three views of motivation, specifically: behavioristic, cognitive, and constructivist (p. 153). Behavioristic motivation is described as a desire to receive a reward for a completed task, while cognitive motivation can be described as much more focused on a person's personal decisions, and constructivist motivation is defined as personal choices, for instance, interaction with others to gain social belonging (Brown, 2014). In this case, the main focus of the study was to assess and investigate whether the use of digital applications contributes to the internal motivation of participants to learn a language. According to ongoing research, the use of digital applications can potentially increase the internal motivation of students when learning a second language. The same findings were indicated in the Mahmud et al. study (2023), which confirmed the positive effect on learners' collaboration and communication skills and their positive perception of using Web 2.0 in a collaborative learning context.

Some researchers, Smith and Dobson (2009), Tuyet and Khang (2020), Chang and Windeatt (2021), Nguyen and Takashi (2022), and Andiappan et al. (2022), mentioned that teachers who have used Web 2.0 tools in their classroom have noticed that students have a positive attitude towards their use in classroom

projects. Additionally, it was found that it helped increase the motivation and involvement of students in the learning process.



Web 2.0 applications as facilitating tools to improve productive skills

Relatively new Web tools such as Flipgrid and VoiceThread have become popular in recent years in the educational community. The applications have some benefits that support this free and unlimited video discussion tool: grids, topics, responses, replies, flexibility, and a networking environment. For teachers, these are great tools to integrate their face-to-face classrooms with the digital ones and enable students to instantly participate in recorded video and audio dialogues, peer-to-peer communication, including writing comments; they can also serve as the tools for oral communication tasks assigned by educators (e.g., storytelling), and they can also control the editing and set the deadlines, whereas learners have the opportunity to re-record and edit their videos by adding different video effects and emojis. Researchers from all around the world are very interested in exploring Flipgrid's and VoiceThread's effectiveness in teaching and learning practices since they have the potential to be beneficial for learning.

Mango (2017) has done research on using VoiceThread as an assisting tool that helps to develop listening comprehension. However, the research results revealed that students also increased their speaking skills. Students said that when they used VoiceThread, they felt more engaged and worked harder on their learning. In particular, they said that they felt like they got better at speaking and worked harder on their recorded speech sessions. The findings revealed that, regardless of their confidence level, VoiceThread provides students with a safe, low-anxiety environment to practice listening and speaking. Other studies also confirm that the VoiceThread application can be an assistive tool (Nguyen & Takashi, 2022) that helps learners work independently and improve their productive skills as well as their receptive skills (Munive et al., 2021) and could be beneficial to developing their communicative skills (Utami & Santosa, 2023).

To date, limited research exists regarding Flipgrid's effect on foreign language skill development. One of the earliest studies by McLain (2018) showed Flipgrid as an effective learning tool for business English writing. In particular, 133 undergraduate Korean students regarded Flipgrid as beneficial for their English-speaking skills improvement, stated that it was an easy tool to use, and stated that it helped them reduce communication anxiety through the increased frequency of speaking assignments. A group of researchers led by Hashim et al. (2019) investigated the Web 2.0 application Flipgrid as an innovative anxiety-inducing tool. Hashim et al. (2019) stressed that combining Web 2.0 applications with face-to-face classrooms is helpful to practice students' communicative skills and could be beneficial to developing their communicative skills (Hashim et al., 2019). Hashim et al. (2019) pointed out that nowadays, university students are critically lacking in speaking skills. That is why it is important to implement Web 2.0 applications in order to develop

learners' productive skills. However, Hashim et al. (2019) stated that 22 percent of participants mentioned that they felt overwhelmed and not good enough to complete three-minute tasks, and Hashim et al. (2019) concluded that while applications like Flipgrid have the potential to improve communicative skills, users may experience anxiety when using Web 2.0 tools. Other researchers have also revealed EFL learners' positive attitude towards Flipgrid as a tool to enhance English communication skills (Miller et al., 2020; Shin & Yunus, 2021; Rinfret & Forster, 2022), to improve English pronunciation (Lainez Vera, 2022), and to practice oral science communication in English (Kleftodimos & Triantafillidou, 2022).

Experience of using Flipgrid and VoiceThread as video discussion tools in a Kazakhstani context

Since the independence of Kazakhstan, many educational initiatives have been implemented, ranging from a trilingual educational policy (Fierman, 2006) to the use of ICT in language classrooms (Egorov et al., 2007; Suleimen, 2019). But Kazakhstan is not advanced enough in using Flipgrid in the language classroom (Sartor, 2020), and there is little research in Kazakhstan on Flipgrid and VoiceThread. An exploratory design study (n = 40) carried out by Zhumatayeva (2022) showed that using Flipgrid helped learners and teachers engage in written assignments, essays, and creative tasks such as video essays.

In a survey study (n = 15), Tastanbek et al. (2021) found that more than half of the respondents were satisfied with how Flipgrid benefited the learning process. Another survey study (n = 30) conducted by Sarenova and Abdygapparova (2019) defined that this tool motivated learners intrinsically and kept them curious about their surrounding environment, and one more study asserted the possible advantages of Flipgrid (Kuzembayeva et al., 2021).

The literature review revealed that the minimal research studies on Flipgrid in Kazakhstan have been designed and researched with the needs of English language learners in mind, and no research has been conducted on the use of VoiceThread in speaking and listening learning within the context of Kazakhstan. For that reason, the need to study this area was born, and the research is dedicated to exploring how the utilization of Flipgrid and VoiceThread could develop learners' productive skills. For this reason, the research underlines the positive impact of carrying out Web 2.0 applications in the English as a Foreign Language classroom for secondary school learners, and it is suggested that the implementation of these video discussion tools will have any significant effect on improving secondary school students' productive skills.

Summary

After reviewing the mentioned studies, where participants came from absolutely different backgrounds and countries and their age and level of English proficiency were different, the results of the studies show that using Web 2.0 tools as a way to teach a foreign language could help students get better at

communicating in that language. The studies identified that to implement Web 2.0 applications efficiently, researchers should consider the usage of Web 2.0 applications as a scaffolding tool, increasing their motivation while developing learners' productive skills. It was noted that the vast majority of the studies were conducted with adults or university students, but there are a few investigations on school-aged students (Zhou & Wei, 2018; Andiappan et al., 2022; Dugartsyrenova & Sardegna, 2016; Mango, 2017; Lee, 2014). Despite the growing interest in implementing Web 2.0 applications into foreign language classes, only a few studies exist that look at using storytelling on Flipgrid and VoiceThread to improve the productive skills of the English language in the context of secondary school. "Digital storytelling" technology can be attributed to the tools of Web 4.0 ("intellectual technologies"), and as an accompaniment to the Flipgrid and VoiceThread tools, it has great pedagogical potential. In Kazakhstan, such a study was first undertaken in the framework of this The data and guidance will be considered and employed in the present study, and scaffolding techniques will be utilized by considering the increase in learners' motivation while helping learners develop productive skills in speaking and writing. The paper centers on the efforts to implement storytelling on discussion platforms Flipgrid and VoiceThread to determine the effects and influence on secondary school students' productive skill development. It is suggested that these tools offer an equal opportunity for all learners to develop their productive skills. Hence, research questions can be stated as follows:

- ▶ Does Flipgrid and VoiceThread practice have any significant effect on improving secondary school students' productive skills?
- ▶ How do learners perceive the use of Flipgrid and VoiceThread in English-speaking practice?

Research methodology and design

Research design

The current study employs a quantitative research approach, which has been chosen due to the prevalence of this method in previous empirical studies on Web 2.0 applications conducted by Lee (2014). Creswell and Creswell (2018) explain that the quantitative method involves testing objective theories by examining the relationship between two variables, which are measured using tools that produce numeric data that can be analyzed using statistical methods. This type of research utilizes well-developed, specific designs that have been evaluated for reliability and validity.

To investigate the impact of Flipgrid and VoiceThread as a teaching tool for English as a second language, the research employed an explanatory group comparison true test experimental research design (Bartos & LaFountain, 2002) utilizing a pretest/posttest research design. The pretest phase involves assessing the reliability and validity of the instrument, which in this case includes KET tests and questionnaires administered to research participants (Hu, 2014), while the posttest phase is used to measure progress or regression. A pretest

and posttest design offers research directionality as it involves quantitatively testing a dependent variable (Leung, 2019).

The main focus of this study was to investigate the impact of using Flipgrid and VoiceThread in teaching English as a second language, particularly in schools. Therefore, a quantitative design was chosen to examine the impact of this tool on the way teachers use their subject matter. Overall, this study contributes to the growing body of research on the effectiveness of educational technology in language learning.

Flipgrid. Flipgrid is a video discussion instrument that enables students to instantly participate in recorded video and audio dialogues, including writing comments. Since the teacher can see and hear each student's response, Flipgrid allows each student to be an active participant in the classroom conversation in a virtual context (Flipgrid, 2020). Flipgrid is a web-based and mobile application where educators are able to create classes or courses on a certain subject and invite learners to participate in the video discussions. On this platform, teachers' have control over editing and setting deadlines, whereas learners have the opportunity to re-record and edit their videos by adding different video effects and emojis. Accordingly, Flipgrid creates a safe digital environment where students can be actively involved in the discussions, lowering their anxiety. For teachers, this is a great tool to integrate their face-to-face classrooms with the digital ones, where they have the ability to record the lessons and upload them onto the Web 2.0 application Flipgrid. The Flipgrid application can be an assistive tool that helps learners work independently. Also, Flipgrid can be synchronized with Google Classroom. In addition, Flipgrid has considered Microsoft's product since 2018.

It is essential to mention that the Flipgrid application is completely free and unlimited (Flipgrid, 2020). Flipgrid gives you the opportunity to create unlimited groups and classes and upload videos of students. The video material might be from 15 seconds to 10 minutes in length. According to the researchers' opinion about the Web 2.0 application Flipgrid, it is one of the greatest facilitating tools that could be employed to increase learners' productive skills as well as receptive skills.

VoiceThread. VoiceThread is a cloud-based interaction application that lets teachers and students upload presentations in the form of PowerPoint slides, photos, videos, or all three; add voice comments; and securely share the presentation with other students. Most importantly, other users can go back to the presentation at any time and add their own voice or video using the microphone on their computer, camera, or smartphone. This can be done at any point throughout the presentation. This results in a constant stream of asynchronous audio or video communication, which is comparable to the back-and-forth dialogue that would take place in a conventional classroom setting. Students can use VoiceThread to improve their critical thinking, communication, teamwork, and creativity skills. Almost all the functions of the VoiceThread application are very similar to Flipgrid.

In this VoiceThread application, teachers have control over editing and setting deadlines, while learners can make presentations and add their voices to them. Additionally, there is a function that gives you the opportunity to write comments on the presentation. In addition, learners, instead of recording their voices, are able to write them down and, while presenting, reveal them on the screens of other participants. On this platform, participants give a presentation in voice format, and other participants add their feedback in voice thread format. There is also a function where learners regulate the speed of their voice. The VoiceThread is a web-based and mobile application that provides a safe online environment where learners are allowed to take part in discussions.

Context

The study was conducted at a state school in Karaganda, Kazakhstan, and included 9th-grade students aged 15 to 16. Participants were selected randomly using a computer-generated random number sequence since the random field of assignment enables scientifically measuring and analyzing the collected data accurately (Yale University, 2021). The random assignment to the experimental and control groups was done by assigning odd numbers to the experimental group and even numbers to the control group. The number of participants in the study, including control and experimental groups, was thirty-nine ($n = 39$). The reason for choosing participants aged 15 to 16 is that they are developing maturity, understand the importance of the research, and are able to give consent to participate in the research independently without their parents' or caretakers' permission (Spriggs, 2010). In addition, this age group was chosen since they are usually at the end of their secondary school education (PISA, 2019).

Participants. The study involved secondary school students who were learning English as a foreign language, with 22 participants being native Kazakhs and 17 participants being of Russian nationality. The sample was randomly divided into two groups: the control group, consisting of 20 participants, and the experimental group, consisting of 19 participants.

All participants were informed about the study's ethics, including anonymity, confidentiality, and voluntary participation. They were also informed that assignments from the Flipgrid application would be incorporated into every lesson. The study lasted for eight weeks, comprising 24 academic lessons.

Instruments. To gather the necessary data for this study, the Cambridge Key English Test (KET) was utilized. To answer the first research question of whether Flipgrid's connectivist practice has any significant effect on improving secondary school students' productive skills, standardized Key English Tests, which are based on the Waystage specification (Council of Europe, 2001), were administered to both groups (control and experimental) as a pretest and a posttest to measure students' performance before and after the intervention. Knapp (2016) described pretest and posttest as types of research instruments that are used to receive a pretest measure of a result of interest before

conducting some treatment, followed by a posttest on the same measure. The pretest and posttest data were analyzed by Statistical Package for the Social Sciences (SPSS). In order to guarantee the homogeneity of the subjects regarding their English language proficiency, a standardized KET 1 practice test was taken from the subjects participating in the research. This exam helped the researchers grasp homogenous subjects, which they then divided into control and experimental groups.

The listening and reading sections were excluded from the posttest as the study centered on productive skill comprehension. In our study, we conducted a thorough assessment of the reliability and validity of the KET tests. While the University of Cambridge had previously surveyed and approved the reliability of the KET, we conducted further investigation into the reliability of the speaking and writing sections, which were the main focus of our study. We used parallel tests to assess their reliability and found the speaking test to have a reliability coefficient of 0.93. Additionally, we checked the reliability of the writing posttest by comparing it to the pretest and found a reliability coefficient of 0.91, indicating that the tests were reliable for our present study (Larson-Hall & Herrington, 2010).

To answer the second research question of how learners perceive the use of Flipgrid and VoiceThread in English-speaking practice, a questionnaire was used to find the insights of students in the experimental group at the end of the training process on the Flipgrid and VoiceThread implementation.

The questionnaire was constructed using a five-point Likert scale with five levels ranging from 1 to 5 (5 = I totally agree; 4 = I agree; 3 = I don't know; 2 = I disagree; 1 = I totally disagree) to obtain participants' self-evaluation of the Flipgrid and VoiceThread applications. Participants were given a questionnaire to find out the influence of Flipgrid and VoiceThread on engagement, collaboration, and learning opportunities; speaking performance; perceptions of enjoyment of discussion; interaction on Flipgrid and VoiceThread; and learning motivation. In addition, open questions were used to collect information about positive and negative aspects of the application. The questionnaire's reliability was measured using Cronbach's alpha coefficient for each construct, which revealed that the questionnaire achieved acceptable reliability ($\alpha = 0.964$).

Data collection procedures

During the experiment, both the experimental and control groups received instructions for 24 lessons that were aligned with the school curriculum for 9th grade. The regular school course was supplemented with tasks for the experiment. At the beginning of each lesson, both groups studied a complete unit from their course book. The experimental group used Flipgrid and VoiceThread applications as tools and storytelling as a method to develop productive language skills, while the control group only completed exercises without using Flipgrid and VoiceThread applications. In each lesson, participants completed tasks of increasing complexity based on Bloom's taxonomy (1984).

The experimental group was engaged in various activities using Flipgrid and VoiceThread to develop productive language skills. They were encouraged

to post their own stories to Flipgrid and VoiceThread to start new conversations. In the experimental group, Flipgrid and VoiceThread were used before each language class to find out what learners knew at the beginning of a topic, to help them understand the content deeper, and to evaluate the content through storytelling at the end of this or that topic. With each storytelling video creation, learners considered how they perceived the content of what they had shared and were given opportunities to discuss other learners' videos and provide feedback and peer review on Flipgrid and VoiceThread. The process of peer-to-peer review helps learners become stronger communicators and involved digital citizens (MacDonald et al., 2022). The teacher interacted with learners as a facilitator, provoking learners to keep conversations going on Flipgrid and VoiceThread to create response chains to grow on interesting topics. The teacher-facilitator used a connectivist approach, encouraging learners to use knowledge of "the wisdom of the crowd" for problem-solving, decision-making, and predicting something to develop their productive skills.

During the experiment, the two groups received two tests in the form of a pretest and a posttest. The pretest, KET 1, was a placement test that was given to the entire target population prior to the selection of experimental and control groups. The two selected groups' performances on the speaking and writing comprehension sections of KET 1 were analyzed to ensure the homogeneity of the groups in terms of productive skill ability (the focus of the study). After four weeks of teaching through Flipgrid, the KET 2 was re-administered to both groups at the end of the experiment as a posttest (as stated above, the reading and listening sections were not used in the posttesting) to compare their development in terms of speaking comprehension ability. The purpose of posttesting was to measure the two groups' end-of-course language productive skills development.

KET 1 and KET 2 tests utilized the assessment rubrics that were retrieved from the Cambridge English Language Assessment website (2020), as presented in Table 1 for speaking. The amount of instruction in both groups was the same; it was just the format of the instruction that was different. Then the results of the students' scores on these two sets of exams were compared. Pre- and post-productive tests were used to compare the participants' speaking and writing productions before and after the project, and they were evaluated based on the comparison of their mean scores by SPSS software.

Table 1. The speaking assessment scale

	Grammar and vocabulary	Pronunciation	Interactive communication
5	Demonstrates good ability to use grammar in simple forms. Has a good range of colloquial speech vocabulary.	Is quite clear, and has some control of phonological features.	Able to ask and answer in simple forms. Requires very little prompting and support.
4	<i>Performance shares features of Bands 3 and 5.</i>		
3	Demonstrates sufficient ability to use grammar in simple forms. Able to use suitable vocabulary in colloquial speech.	Is quite clear, despite limited control of phonological features.	Able to ask and answer in simple forms, despite some difficulty. Requires prompting and support.
2	<i>Performance shares features of Bands 1 and 3.</i>		
1	Demonstrates a little control of a few grammatical forms. Uses only isolated words and phrases.	Has a little control of phonological features and is unclear.	Has significant difficulty communicating. Requires additional prompting and support.
0	<i>Performance Band 1.</i>		

In addition, a questionnaire was utilized to obtain accurate and dependable feedback from experimental group students regarding their positive and negative experiences with Flipgrid. The questionnaire was administered to the students at the conclusion of the 24 language classes. The questionnaire was designed to elicit the students' reactions.

Data analysis procedures

Once we collected the data using the instruments, we computed and compared the scores of each group. We utilized SPSS software to analyze the data, beginning with the application of the Kolmogorov-Smirnov test to check for normality. We then employed both independent samples t-tests to obtain the final results.

Result and findings

Pretest/posttest results

Before the research commenced, the participants were asked to take part in the pretest, which was retrieved from the Cambridge English Assessment KET 1 practice tests. As mentioned above, the KET A1 exam's speaking part was taken only, and the assessment rubrics were also received from the Cambridge English Assessment KET 1 practice tests. The participants were graded on a five-point scale based on how well they spoke English. The point "one" means the lowest point, whereas the "five" point is considered the highest point. In addition, each productive skill was assessed according to three criteria: the speaking part, grammar and vocabulary, pronunciation, and interactive communication.

The performance of the experimental and control groups on the pretest

and posttest was examined statistically using the independent samples t-test. The participants' speaking scores were computed, and the pretest and posttest results were compared. The comprehensive analysis is shown in the section below.

The SPSS software (Statistical Package for Social Science) was employed to examine the collected data. It is important to note that the normality of the distribution for both the pretest ($Z = 1.258$; $p = 0.084$) and posttest scores ($Z = 0.783$; $p = 0.546$) was assessed using the One-sample Kolmogorov-Smirnov test, which confirmed that the test distribution was normal.

Pretest results for experimental and control groups

Table 2. Pretest results for both groups

Group statistics					
	Groups	N	Mean	Std. deviation	Std. error mean
Pretest	experimental	19	2.947	.8481	.1946
	control	20	2.800	.9615	.2128

Table 2 displays the descriptive statistics for both groups, revealing that the mean scores for each group are nearly identical. Specifically, the mean score for the control group is 2.800, while the mean score for the experimental group is 2.947. As a result, we can conclude that the two groups were comparable and homogeneous at the outset of the study.

The speaking skills of the participants on the speaking exam were investigated using an independent sample t-test. The purpose of this t-test was to compare the mean scores of the individuals in the experimental and control groups.

Table 3. Independent samples t-Test for both groups

	Levene's Test for equality of variances				t-test for equality of means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% confidence interval of the difference	
								Lower	Upper
Equal variances assumed	.753	.391	.510	37	.613	.1474	.2892	-.4386	.7333
Equal variances not assumed			.511	36.858	.613	.1474	.2883	-.4369	.7316

The findings from the pretest scores in Table 3 indicate that there is no discernible split in the means of the groups. Since the Sig (.613) is greater than 0.05, the

difference between the groups is not significant at ($p < 0.05$). In fact, they were at the same level before the experiment.



Posttest results for experimental and control groups

The posttest performance of the experimental and control groups was also examined using the descriptive statistics of both groups on the posttest. The speaking scores of the participants were measured, and their progress on the posttest was compared. The following section provides a comprehensive analysis presented below.

Table 4. Posttest results for both groups

Group statistics					
	Groups	N	Mean	Std. deviation	Std. error mean
Posttest	experimental	19	3.947	.8481	.1946
	control	20	3.250	1.1642	.2603

As demonstrated in Table 4, the mean score obtained for the posttest score of the experimental group (3.947) is greater than that of the control group (3.25). At the conclusion of the study, the mean score on the posttest for both groups indicated that all participants demonstrated some improvement as an outcome of the experiment. However, a t-Test was conducted to determine whether the differences in the mean scores were statistically significant.

Table 5. Independent samples t-test for both groups

	Levene's Test for equality of variances				t-test for equality of means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% confidence interval of the difference	
								Lower	Upper
Equal variances assumed	1.506	.227	2.129	37	.040	.6974	.3276	.0335	1.3612
Equal variances not assumed			2.146	34.721	.039	.6974	.3250	.0374	1.3573

As shown in Table 5, the findings of the speaking scores on the posttest reveal that there is a significant difference between the mean posttest scores of the participants ($df = 37, = 0.05, p = 0.04, \text{ and } 0.039$). Since the Sig (.040) value is smaller than 0.05, there is a statistically significant difference in the means of the posttest scores in favour of the experimental group, and the null hypothesis is accepted.

The data and statistical analysis reveal that the implementation of Flipgrid and VoiceThread applications may improve learners' speaking performance.

The second research question was clarified through the questionnaire that was delivered to the students in the experimental group at the end of the training process. The questionnaire aimed to determine students' insights into the implementation of Flipgrid and VoiceThread. The findings are summarized in the table below.

Table 6. Results of the questionnaires

Item No	Question items	Mean
1	Flipgrid and VoiceThread is an effective tool for speaking activities	4.4
2	I find Flipgrid and VoiceThread easy and convenient to use	4.3
3	Flipgrid and VoiceThread helps me improve my communication skills	3.9
4	I feel that my speaking ability is better when using Flipgrid and VoiceThread	3.87
5	I am more involved in speaking activities when using Flipgrid and VoiceThread	3.75
6	I watch more speaking videos from peers on Flipgrid and VoiceThread platform	3.5
7	I work well to make speaking video with peers	3.2
8	Flipgrid and VoiceThread provides more communicative opportunities	4.6
9	I feel more comfortable to make videos with Flipgrid and VoiceThread	4.09
10	I enjoy using Flipgrid and VoiceThread anytime and anywhere	3.6

Table 6 shows that the students had positive attitudes towards the use of Flipgrid and VoiceThread in speaking practice, which was addressed by the mean scores ranging from 3,2 to 4,6. Many students' responses reported that Flipgrid and VoiceThread were easy and convenient to use (M = 4,3). Moreover, there were other findings that addressed positive perceptions of students on the effectiveness of Flipgrid and VoiceThread on speaking practice, including enhancing interaction (M = 4,3), providing more convenience in speaking learning (M = 4,3), creating more speaking opportunities (M = 4,6), and promoting motivation in learning speaking (M = 4,05).

The results showed positive feelings towards the help of Flipgrid and VoiceThread in terms of engaging students in learning opportunities in class and creating more collaboration, which was seen through all the high means of each item. The Flipgrid and VoiceThread applications were highly recommended to practice speaking English beyond classroom-based environments, which were supposed to provide better learning environments for students.

Discussion

According to all indicators, positive dynamics in the formation and development of productive skills have been recorded. This study suggests that Web 2.0 technologies, with their interactive and participatory qualities, can be

effectively exploited to increase students' writing and speaking, which is consistent with the literature. This result matched the findings from past research by Johnson and Skarphol (2018), Lai et al. (2021), Chang and Windeatt (2021), and Nguyen and Takashi (2022). The findings from those studies similarly paid attention to the effectiveness of Flipgrid and VoiceThread on speaking skills. Some of them reported that Flipgrid and VoiceThread are helpful for practicing speaking skills and enhancing students' confidence (Lowenthal & Moore, 2020). Some stayed focused on the influences of Flipgrid and VoiceThread on reducing anxiety (Tuyet & Khang, 2020) and increasing collaboration and autonomy (Forsythe & Raine, 2019; Stoszkowski et al., 2020).

The research findings showed that learners in the experimental group had a positive attitude towards using Web applications. Specifically, learners in the study highlighted the fun elements of the mentioned applications, expressed their satisfaction with their ease of use, and approved the findings of Faramarzi et al. (2019), who reported that learners were satisfied with the vodcasting application as a tool for teaching speaking skills. Moreover, these applications were highly recommended by learners in the experimental group to practice speaking English beyond classroom conversation and environment and aligned with the study by Pérez et al. (2022), which stated that Flipgrid provides better learning environments.

Learners said that Web applications could help improve their English-speaking confidence and reduce their speaking anxiety. Furthermore, learners in the experimental group stated that Flipgrid and VoiceThread were useful tools to develop their English-speaking skills, a result that is supported by Hashim et al. (2019), Koroğlu and Bilici (2022), Sharoff (2022), and Utami and Santosa (2023), which revealed that using digital video tools can help to practice their English communication skills in real situations. The results showed that learners' vocabulary in the experimental group had improved, and those who were afraid of making lexical and grammatical errors had communicated in English without any anxiety as the integration of digital learning gained their interest in learning English.

Participants showed positive feelings towards the help of Web applications to create more collaboration in terms of giving and responding to the comments from the uploaded video that can facilitate them in discussing with their peers what should be improved, how their video looks, and whether they like it or not. The positive idea of peer feedback through collaboration is confirmed by Syahrizal and Rahayu (2020), who mentioned that peer feedback is very beneficial in sustaining a powerful learning process. However, in our study, it led to competitiveness, as students could "like" or "dislike" a video. If a video received fewer views or likes than others, that could lead to a negative response from the learners, as they felt uncomfortable when they got fewer "likes", and we explained to the learners that the functions of "like" or "heart" were used as students' social interaction but not as a score assessment. In this way, the results of peer feedback revealed a lack of self-confidence, as most Kazakh learners, in comparison with Russian learners, were uncomfortable

about being “on screen”, asserting that the peers would judge their appearance. Similar results were found in a study by Hashim et al. (2019).

Another related finding is that the learners felt comfortable using Flipgrid and VoiceThread, as they gave them the opportunity to work anytime and anywhere. This kind of teaching that helps learners manage their time and flexibility was appreciated by Neves and Hillman (2017).

The study also demonstrated that the experimental group adopted Web applications easily to enhance their learning experience. This finding supports the Zhang et al. study (2021) and aligns with connectivism theory, which emphasizes the importance of technology and the internet in learning. This finding also contradicts the theory that students struggle with developing necessary information and communication technology (ICT) skills (Safford & Stinton, 2016). Learners in the experimental group expressed agreement with using Flipgrid and VoiceThread and appreciated its focus on their needs, including essential connectivism principles like diversity of opinions, learning from connections, digital learning facilities, teamwork, and decision-making. These global skills are crucial for success in the 21st century (Siemens, 2005) and are supported by Shamsi’s study (2019), which highlights how interaction with others in a social context can enhance learners’ knowledge and global skills. The learners’ choice of learning experience via Flipgrid and VoiceThread showed that it helped learners develop core skills to find and use the information they have and obtain using the English language, which supports the research conducted by Utecht and Keller (2019).

In general, the use of Web 2.0 tools improves students’ speaking in terms of their linguistic and pragmatic competencies. The study confirms that the affordances of Web 2.0 technologies such as Flipgrid and VoiceThread enable students to co-construct knowledge and scaffold their learning through interaction with their teacher, peers, and a wider audience. The study also supports the work of earlier studies in this area. The results make it clear that technology’s potential to improve students’ productive skills can be used to educate; its impact on students’ writing and speaking abilities depends on a variety of elements that may increase the technology’s effectiveness.

Students recognized the potential of Web 2.0 in learning English, focusing on the acquisition of vocabulary and the development of writing and speaking skills. This was mainly due to the expansion of communication opportunities in English beyond the physical walls of the classroom. In addition, the exchange of ideas between the participants contributed to obtaining more complete results and also increased metalanguage awareness. The use of Flipgrid and VoiceThread in the development of productive skills significantly increased the motivation of students and brought diversity to the process of teaching a foreign language at school.



Study limitations and further research

The limitations of the study are related to the individuality of the study, participants, location of the study, accuracy of the findings, and time frame. Increased information is provided below.

Since the location of the study and participants are unique, it is difficult to apply the results to Kazakhstani and international situations. With just thirty-nine participants from the schools of Karaganda involved, the results cannot illustrate the whole Kazakhstani school students' productive performance. This means that for future implications, the number of participants should be larger, and the study should be conducted in different places in the region. For future studies, this study may serve as a guide.

Future research activities will be dedicated to examining the impact of a different set of enabling Web 2.0 tools from a productive skills perspective. Based on the findings and limitations of the study, there are several recommendations for further implications. This suggests that, for the purposes of future implications, the number of participants should be increased, and the research should be carried out in a variety of locations. It is possible that this research will act as a roadmap for future studies. Additional methods of data collection, such as interviews, may be used in the conduct of the study in order to enhance the overall quality of the research methodology.

Conclusion

Flipgrid and VoiceThread provided an equitable opportunity for English language learners to develop this skill set while also increasing their speaking development in English. This development came about as a result of an increase in the development of learning skills appropriate for the twenty-first century. When paired with the necessary scaffolds and support, the use of digital video apps as a medium to encourage speaking development in English has the potential to boost English language learners' speaking fluency. Additionally, the emotional filters of English language learners may be lowered by using digital video apps, which in turn can increase their drive to practice and further their education in the target language. However, digital video apps should not be utilized in lieu of teacher-directed, in-person sessions, and they should not be the sole scaffold or support used to foster spoken language development in English within a digital setting. Both of these things should be avoided. Real scaffolds should not be removed from students until they have been consistently prepared, presented, and rehearsed to the point that the English language learner is capable of doing so on their own. Digital video apps are not a suitable replacement for physical scaffolds.

The communication abilities of English language learners may be improved across all four skill sets by making use of digital technology, which are speaking, listening, reading, and writing. However, for students to practice the scaffold and use it in combination with the digital application, more time must be factored into the digital assignment. This support should be progressively eliminated as the difficulty of the language grows and the students begin to build



independence in their use of the scaffolds as well as in their own original creations. It is recommended that audio and video recording tools such as Flipgrid, VoiceThread, and others be used as a tool to monitor the growth of English language learners' second languages rather than as a standalone scaffold for language learning. It has the great ability to build on the target language of English language learners while simultaneously raising their confidence and decreasing their emotional filter when digital media are further assisted with extra scaffolds and support. Students have the opportunity to develop a deep connection with their target language via the use of digital tools, which are a useful tool in the EFL classroom. Students' ability to acquire a second language and learning abilities appropriate for the twenty-first century have the potential to significantly improve whenever instructors plan, deliver, and exercise the scaffolds in combination with the digital application.

Successful, motivating use of Web 2.0 tools depends on teachers and students knowing how to realize the potential benefits and affordances of using technology and being aware of them, as well as the risks and how to avoid them. It is important for teachers to develop the skills and competences to fulfill the roles that will help them implement Web 2.0 tools effectively for innovation and excellence in learning, teaching, and leading, and to be evolving and looking for ways to better teach and scaffold students in the process of knowledge building. The teacher should transform the role into that of a facilitator, guiding the student in their search for, organization, and use of knowledge. Meanwhile, following the students' needs and interests, opportunities for continuous and collaborative learning that give them the tools to assume greater responsibility for their own learning are required. In this sense, teachers and learners are on a similar journey of discovery, realizing the potential benefits of technology for motivation and learning.

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References

- Alastal, M., Aladini, A., Jalambo, M., & Alattal, H. (2022). The impact of using the Padlet application on improving 7th Graders' English speaking and deductive thinking skills. *European Journal of English Language Teaching*, 7(2), 153–169. <http://dx.doi.org/10.46827/ejel.v7i2.4233>
- Almanar, M. A. (2019). Reviewing students' vocabulary mastery by using Kahoot at Holmesglen Partnering with University of Muhammadiyah Tangerang. *Acitya: Journal of Teaching and Education*, 1(2), 78–87. <http://dx.doi.org/10.30650/ajte.v1i2.212>



- Andiappan, S., Hock Seng, G., & Ruey Shing, S. (2022). The use of vlogging to enhance speaking performance of ESL students in a Malaysian secondary school. *Teaching English with Technology*, 22(1), 23–39.
- Bartos, R.B., & LaFountain, R.M., (2002). *Research and statistics made meaningful in counseling and student affairs*. Brooks/Cole.
- Batyrova, A. (2021). *Understanding Kazakhstani students' challenges in speaking English and their strategy use: A phenomenographic study* [Unpublished master's thesis, Nazarbayev University]. Nazarbayev University Repository. <https://nur.nu.edu.kz/handle/123456789/5624>
- Bloom, B. S. (1984). *Taxonomy of educational objectives; the classification of educational goals*. Longman. (Original work published 1956).
- Bouaziz, A., & Ghouli, N. (2022). *The effect of students' mobile self-recordings on their speaking anxiety*. [Unpublished master's thesis, Larbi Ben M'hidi University]. DSpace Repository. <http://bib.univ-oeb.dz:8080/jspui/handle/123456789/13521>
- Brown, H.D. (2014). *Principles of language learning and teaching* (6th ed.). Pearson Education.
- Bruner, J. S. (1978). *The role of dialogue in language acquisition*. In A. Sinclair, R. J. Jarvella, & W. J. M. Levelt (Eds.) *The child's concept of language* (pp.148–173). Springer-Verlag.
- Cambridge English Language Assessment. (2020, January). *A2 key for schools*. <https://www.cambridgeenglish.org/exams-and-tests/key-for-schools/>
- Chang, H., & Windeatt, S. (2021). Using VoiceThread for extended independent practice in giving short academic presentations. *Computer Assisted Language Learning*. Advance online publication. <http://dx.doi.org/10.1080/09588221.2021.2003407>
- Conole, G. (2008). Listening to the learner voice: The ever changing landscape of technology use for language students. *ReCALL*, 20(2), 124–140. <http://dx.doi.org/10.1017/S0958344008000220>
- Council of Europe. (2001). *Common European framework of reference for languages: Learning, teaching, assessment*. Cambridge University Press.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE Publications.
- Degirmenci, R. (2021). The use of Quizizz in language learning and teaching from the teachers' and students' perspectives: A literature review. *Language Education and Technology*, 1(1), 1-11.
- Deng, Z., Cheng, A., Ferreira, P., & Pavlou, P. A. (2022). *From smart phones to smart students: Distraction versus learning with mobile devices in the classroom*. Fox School of Business Research Paper Forthcoming. <http://dx.doi.org/10.2139/ssrn.4028845>
- Derakhshan, A., Kruk, M., Mehdizadeh, M., & Pawlak, M. (2021). Boredom in online classes in the Iranian EFL context: Sources and solutions. *System*, 101, 1–15. <https://doi.org/10.1016/j.system.2021.102556>
- Dugartsyrenova, V. A., & Sardegna, V. G. (2016). Developing oral proficiency with VoiceThread: Learners' strategic uses and views. *ReCALL*, 29(1), 59–79. <https://doi.org/10.1017/s0958344016000161>



- Egorov, V. V., Jantassova, D. D., & Churchill, N. (2007). Developing pre-service English teachers' competencies for integration of technology in language classrooms in Kazakhstan. *Educational Media International*, 44(3), 255–265. <https://doi.org/10.1080/09523980701491732>
- Ehrman, M. E., & Oxford, R. L. (1995). Cognition plus: Correlates of language learning success. *Modern Language Journal*, 79(1), 67–89. <https://doi.org/10.1111/j.1540-4781.1995.tb05417.x>
- Fandiño, Y. J. (2013). 21st-century skills and the English foreign language classroom: A call for more awareness in Colombia. *Gist Education and Learning Research Journal*, 7(7), 190–208.
- Faramarzi, S., Tabrizi, H. H., & Chalak, A. (2019). Telegram: An instant messaging application to assist distance language learning. *International Journal of Instruction*, 12(1), 1263–1280. <https://doi.org/10.29333/iji.2019.12181a>
- Fierman, W. (2006). Language and education in post- Soviet Kazakhstan: Kazakh-medium instruction in urban schools. *Russian Review*, 65(1), 98–116. <https://doi.org/10.1111/j.1467-9434.2005.00388.x>
- Flipgrid. (2022). *Getting started with Flipgrid*. <https://resources.finalsite.net/images/v1586094413/rumsey/ybku7vccuxkzolon0k/flipgrid.pdf>
- Forsythe, E., & Raine, P. (2019). Bring the back-row students to the front of the class with Flipgrid. *The Language Teacher*, 43(4), 22–24.
- Gardner, R. C. (2010). *Motivation and second language acquisition: The socio-educational model*. Peter Lang.
- Ghazal, S., Al-Samarraie, H., & Wright, B. (2019). A conceptualization of factors affecting collaborative knowledge building in online environments. *Online Information Review*, 44(1), 62–89. <http://dx.doi.org/10.1108/OIR-02-2019-0046>
- Gustianti, A. H., Nursyamsiah, N., & Sopian, A. (2021). The use of Quizizz web tool to support writing skills in Arabic. *The 4th Proceeding International Conference on Arabic Language and Literature* (pp. 266–274). <http://proceedings.upi.edu/index.php/ical/article/view/1728>
- Harmer, J. (2007). *The practice of English language teaching*. Longman Pearson Education Limited.
- Hashim, H. U., Yunus, M. M., & Hashim, H. (2019). 3-minutes pitching with flip grid: An antidote of innovation for speaking anxiety. *International Journal of Innovative Technology and Exploring Engineering*, 8(7), 1798-1801.
- Hu, S. (2014). Pretesting. *Encyclopedia of quality of life and well-being research*. Springer. https://doi.org/10.1007/978-94-007-0753-5_2256
- Johnson, M., & Skarphol, M. (2018). The effects of digital portfolios and Flipgrid on student engagement and communication in a connected learning secondary visual arts classroom (Action research project). St. Catherine University. <https://sophia.stkate.edu/maed/270>.



- Juniardi, Y., Herlina, L., Lubis, A. H., Irmawanty, & Pahamzah, J. (2020). Computer- vs. mobile-assisted learning to promote EFL students' speaking skills: A preliminary classroom-based research. *International Journal of Instruction*, 13(3), 417–432. <https://doi.org/10.29333/iji.2020.13329a>
- Kalizhanova, A., Ibrayeva, B., & Ishmuratova, M. (2018, May). Participation in international telecommunication projects for intercultural communication and creating an English authentic environment development. *Fourth International Conference on Higher Education Advances (HEAD'18)* (pp. 99–105). Editorial Universitat Politècnica de València. <http://dx.doi.org/10.4995/HEAD18.2018.7902>
- Kasper, G., & Roever, C. (2005). Pragmatics in second language learning. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 341–358). Routledge. <https://doi.org/10.4324/9781410612700-28>
- Kleftodimos, A., & Triantafillidou, A. (2022). The use of the Video Platform FlipGrid for Practicing Science Oral Communication. *TechTrends* 67, 294–314. <http://dx.doi.org/10.1007/s11528-022-00801-1>
- Knapp, T. R. (2016). Why is the one-group pretest–posttest design still used? *Clinical Nursing Research*, 25(5), 467–472. <https://doi.org/10.1177/1054773816666280>
- Köroğlu, Z. Ç. & Bilici, Ö. U. (2022). Flipgrid for developing and assessing English language learners' speaking skills. In A. El Shaban & R. Abobaker (Eds.), *Policies, practices, and protocols for the implementation of technology into language learning* (pp. 96–113). IGI Global. <https://doi.org/10.4018/978-1-7998-8267-1.ch005>
- Kuzembayeva, A., Silantieva, E., & Baltagireieva, D. (2021). Using online resources in teaching a foreign language. *Nauchnye issledovaniia i innovatsii [Scientific research and innovation]*, 10, 286–292.
- Lai, T. T., Lien, N. T. H., & Vu, N. N. (2021). Flipgrid app for teaching speaking skills: students' perceptions and performance impact. *VNU Journal of Foreign Studies*, 37(6), 155–167.
- Lainez Vera, I. C. (2022). *Flipgrid for the development of English pronunciation in A2 level students* [Unpublished Bachelor's thesis, Universidad Estatal Península de Santa Elena]. DSpace Repository. <https://repositorio.upse.edu.ec/bitstream/46000/8890/1/UPSE-TPI-2022-0035.pdf>
- Larson-Hall, J., & Herrington, R. (2010). Improving data analysis in second language acquisition by utilizing modern developments in applied statistics. *Applied Linguistics*, 31(3), 368–390. <https://doi.org/10.4018/978-1-7998-8267-1.ch005>
- Lee, L., (2014). Digital news stories: Building language learners' content knowledge and speaking skills. *Foreign Language Annals*, 47(2), 338–356. <https://doi.org/10.1111/flan.12084>
- Leung, K. C. (2019). Compare the moderator for pre-test-post-test design in peer tutoring with treatment-control/comparison design. *European Journal of Psychology of Education*, 34(4), 685–703. <https://doi.org/10.1007/s10212-018-00412-6>



- Lowenthal, P. R., & Moore, R. L. (2020). Exploring student perceptions of Flipgrid in online courses. *Online Learning Journal*, 24(4), 28–41. <https://doi.org/10.24059/olj.v24i4.2335>
- MacDonald, C. M., Rose, E. J., & Putnam, C. (2022). How, why, and with whom do user experience (UX) practitioners communicate? Implications for HCI education. *International Journal of Human-Computer Interaction*, 38(15), 1422–1439. <https://doi.org/10.1080/10447318.2021.2002050>
- Mahmud, M. M., Fatima, T., Lashari, T. A., & Waheed, Z. (2023). Exploring the impact of Web 2.0 tools on 21st century skills of EFL learners in Pakistan. *Education Sciences*, 13(4), 384. <http://dx.doi.org/10.3390/educsci13040384>
- Mango, O. (2017). The effects of using VoiceThread on students' listening comprehension and attitudes toward using VoiceThread. *JNCOLCTL*, 21(1), 37–57.
- McLain, T. (2018). Integration of the video response app FlipGrid in the business writing classroom. *International Journal of Educational Technology and Learning*, 4(2), 68–75. <http://dx.doi.org/10.20448/2003.42.68.75>
- Melhe, M. A., Salah, B. M., & Hayajneh, W. S. (2021). Impact of training on positive thinking for improving psychological hardiness and reducing academic stresses among academically-late students. *Educational Sciences: Theory and Practice*, 21(1), 132–146.
- Metruk, R. (2022). Smartphone English language learning challenges: A systematic literature review. *SAGE Open*, 12(1). <http://dx.doi.org/10.1177/21582440221079627>.
- Miller, S. C., McIntyre, C. J., & Lindt, S. F. (2020). Engaging technology in elementary school: Flipgrid's potential. *Childhood Education*, 96(3), 62–69. <https://doi.org/10.1080/00094056.2020.1766677>
- Munive, S. M., Trujillo, R. B., & León, L. E. (2021). Digital tools for improving teenager's speaking. *Revista Lengua Y Cultura*, 2(4), 73–79.
- Neves, J., & Hillman, N. (2017). Student academic experience survey. *Higher Education Policy Institute and Higher Education Academy*, 12, 47-48.
- Nguyen, T. T. T., & Takashi, Y. (2022). Online course design using VoiceThread with TPACK model to enhance English speaking skills for non-native learners. *International Journal of Engineering Pedagogy*, 12(1). <http://dx.doi.org/10.3991/ijep.v12i1.24407>
- Pawlak, M., Derakhshan, A., Mehdizadeh, M., & Kruk, M. (2021). The effects of class mode, course type, and focus on coping strategies in the experience of boredom in online English language classes. *Language Teaching Research*. Advance online publication. <https://doi.org/10.1177/13621688211064944>
- Pérez, A., Roa, A. F., & Rosado-Mendinueta, N. (2022). Flipgrid for social interaction and collaborative learning in a virtual learning environment. In S. Hosseini, D.H. Peluffo, J. Nganji, & A. Arrona-Palacios (Eds.), *Transactions on computer systems and networks* (pp. 459-470). Springer. https://doi.org/10.1007/978-981-19-3383-7_37

- PISA. (2019, December, 3). PISA 2018 Results: What students know and can do. <https://www.oecd.org/education/pisa-2018-results-volume-i-5f07c754-en.htm>
- Pradnyadewi, D. A. M., & Kristiani, P. E. (2021). The use of Quizizz in improving students' reading skill. *The Art of Teaching English as a Foreign Language*, 2(1), 1–6. <https://dx.doi.org/10.36663/tatefl.v1i2.93>
- Puntambekar, S., & Hubscher, R. (2005). Tools for scaffolding students in a complex learning environment: What have we gained and what have we missed? *Educational Psychologist*, 40(1), 1–12. http://dx.doi.org/10.1207/s15326985ep4001_1
- Riding, R., & Cheema, I. (1991). Cognitive styles-an overview and integration. *Educational Psychology*, 11(3–4), 193–215. <https://doi.org/10.1080/0144341910110301>
- Rinfret, S. R., & Forster, E. (2022). FlipGrid: Re-imagining online discussion forums for the public administration classroom. *Journal of Public Affairs Education*, 29(1), 92-106. <https://doi.org/10.1080/15236803.2022.2063632>
- Safford, K. & Stinton, J. (2016). Barriers to blended digital distance vocational learning for non-traditional students. *British Journal of Educational Technology*, 47, 135–150. <https://doi.org/10.1111/bjet.12222>
- Salmon, G. (2003). *E-moderating: the key to teaching & learning online*. (2nd ed.). Taylor & Francis Books Ltd.
- Sarenova, A., & Abdygapparova, S. (2019). Digitalizing higher education in Kazakhstan: challenges and solutions. *Paper presented at the RNC2019, 4th CAREN Regional Networking Conference*, November 26–27, Kyrgyzstan.
- Shamsi A.F., Altaha, S., & Gilanlioglu, I. (2019). The role of M-learning in decreasing speaking anxiety for EFL learners. *International Journal of Linguistics, Literature and Translation (IJLLT)*, 2(1), 226–282.
- Sharoff, L. (2022). Innovation and learning with VoiceThread: A pilot assessment of students and educators' perspective. *Journal of Nursing Education and Practice*, 12(9), 38–46. <http://dx.doi.org/10.5430/jnep.v12n9p38>
- Shelestova, T.Yu., & Nabiyeva, A.B. (2023). Problems of using Web 2.0 technologies in teaching language disciplines at the university. *Bulletin of the Karaganda University Pedagogy series*, 1(109), 212–222.
- Shelestova, T.Yu., Maryshkina, T.V., Aupenova, A.U., & Kalizhanova, A.N. (2021). Razvivajushhij potencial instrumentov Web 2.0 dlja pedagogov smeshannogo obuchenija v inozazychnom obrazovanii: mif ili real'nost' [The developing potential of Web 2.0 tools for teachers of blended learning in foreign language education: myth or reality]. *Bulletin of the Karaganda University Pedagogy series*, 3(103), 163–175.
- Shin, J. L. K., & Yunus, M. Y. (2021). The attitudes of pupils towards using Flipgrid in learning English speaking skills. *International Journal of Learning, Teaching, and Educational Research*, 20(3), 151–168. <https://doi.org/10.26803/ijlter.20.3.10>



- Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*, 2(1). http://www.itdl.org/Journal/Jan_05/article01.htm
- Smith, J., & Dobson, E. (2009). Beyond the book: Using VoiceThread in language arts instruction. *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* (pp. 712–715). Association for the Advancement of Computing in Education.
- Spriggs, M. (2010). *Understanding consent in research involving children: The ethical issues. A handbook for human research ethics committees and researchers*. Melbourne Children's Bioethics Centre.
- Stoszkowski, J., Hodgkinson, A., & Collins, D. (2021). Using Flipgrid to improve reflection: A collaborative online approach to coach development. *Physical Education and Sport Pedagogy*, 26(2), 167–178. <https://doi.org/10.1080/17408989.2020.1789575>
- Suleimen, N. (2019). Appraising the attitude towards information communication technology integration and usage in Kazakhstani higher education curriculum. *Journal of Information Technology Education: Research*, 18, 355–378. <https://doi.org/10.28945/4403>
- Syahrizal, T., & Rahayu, S. (2020). Padlet for English speaking activity: A case study of pros and cons on ICT. *Indonesian EFL Journal*, 6(2), 149–156. <http://dx.doi.org/10.25134/ieflj.v6i2.3383>
- Ta, T. B. L., Nguyen, T. V. K., & Nguyen, T. H. (2023). Application of Padlet.com to improve assessment as learning in speaking Classes: An action research in Vietnam. *AsiaCALL Online Journal*, 14(1), 1–17. <http://dx.doi.org/10.54855/acoj.231411>
- Tastanbek, S., Urazbekova, A., & Tleshova, Z. (2021). Transition to assessment online: experiences of Kazakhstani English instructors. *Proceedings of INTED2021 Conference* (pp. 3682–3690). IATED. <https://library.iated.org/view/TASTANBEK2021TRA>
- Thorne, S. L. & Reinhardt, J. (2008). “Bridging Activities,” new media literacies and advanced foreign language proficiency. *CALICO Journal*, 25(3), 558–572.
- Tuyet, T. T. B., & Khang, N. D. (2020). The influences of the Flipgrid app on Vietnamese EFL high school learners' speaking anxiety. *European Journal of Foreign Language Teaching*, 5(1), 128–149. <http://dx.doi.org/10.46827/ejfl.v5i1.3264>
- Utami, N. L. G. F. P., & Santosa, M. H. (2023). Using VoiceThread to develop the speaking skills of EFL learners: A systematic literature review. *Jurnal Inovasi dan Teknologi Pembelajaran: Kajian dan Riset Dalam Teknologi Pembelajaran*, 10(1), 83–91. <http://dx.doi.org/10.17977/um031v10i12023p083>
- Utecht, J., & Keller, D. (2019). Becoming relevant again: Applying connectivism learning theory to today's classrooms. *Critical Questions in Education*, 10(2), 107–119.
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Yale University. (2021). *Experimental design*.

<http://www.stat.yale.edu/Courses/1997-98/101/expdes.htm>

Zhang, Q., Cheung, E. S. T., & Cheung, C. S. T. (2021). The impact of flipped classroom on college students' academic performance: A meta-analysis based on 20 experimental studies. *Science Insights Education Frontiers*, 8(2), 1059–1080. <https://doi.org/10.15354/sief.21.re019>

Zhou, Y., & Wei, M. (2018). Strategies in technology-enhanced language learning. *Studies in Second Language Learning and Teaching*, 8(2), 471–495. <http://dx.doi.org/10.14746/ssllt.2018.8.2.13>

Zhumatayeva, Z. (2022). Experience in teaching the Kazakh language using e-learning and distance learning technologies during the COVID-19 pandemic. *Paper presented at the 2022 MEEd Conference at the University of Minnesota, USA*. <https://research.nu.edu.kz/en/publications/experience-in-teaching-the-kazakh-language-using-e-learning-and-d>



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