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Promoting listening skills with an educational tool: VoScreen

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Highlights

- MALL offers various advantages for language learners beyond the classroom.
- VoScreen has great potential to facilitate the language learning process and improve learners' listening comprehension.
- Learners had positive attitudes towards technology integration into language education to promote specific skills and sub-skills.

Article Info: Research Article

Keywords: *Mobile-assisted language learning (MALL), Educational technologies, VoScreen, Listening skills*

Abstract

In the modern digital age, educational technologies have become valuable resources that effectively support language learning and facilitate the development of various language skills. Among these skills, listening proficiency is of paramount importance as it is indispensable for effective communication and comprehension. With the increasing popularity of communicative approaches, the integration of educational technologies into language instruction has gained momentum due to their ability to provide learners with authentic listening experiences, exposure to diverse accents, and targeted practice opportunities. Considering the potential advantages of these technologies, the present study explores the efficacy of VoScreen in enhancing listening skills at the tertiary level. The study included 45 EFL learners at the tertiary level. Quantitative data were gathered through a pretest and a posttest while qualitative data were obtained through an evaluation and suggestion form. The findings revealed a statistically significant difference in learners' pretest and posttest listening scores. Moreover, learners' evaluations highlighted the contribution of VoScreen to their success in the target skill and other sub-skills. This study sheds light on the promising potential of educational technologies for enhancing learners' listening abilities.

1. Introduction

The incorporation of digital technologies and various applications into language education has witnessed a steady rise in recent years (Chen et al., 2020; Li & Lan, 2022; Sad et al., 2022). This trend is strongly influenced by the characteristics of modern learners, often referred to as digital natives, who inherently rely on technology. In the context of contemporary education, this integration has become an inevitable consequence. Traditional language teaching, previously characterized by teacher-centered instruction and reliance on textbooks, has gradually given way to more learner-centered and technology-enhanced approaches. With the advent of digital technologies and educational applications, language education has become more interactive, personalized, and accessible. Educators now have access to a multitude of resources and tools to accommodate diverse learning preferences and styles. Mobile learning, which primarily focuses on the use of digital technologies and applications in the language learning process, has gained prominence, granting students flexibility and opportunities for self-directed learning. Instructors are increasingly encouraged to adopt communicative and task-based language teaching strategies, fostering

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practical language use and real-life communication skills to meet the needs and expectations of learners in this technology-driven era. As a result, language learning practices now encompass a range of technological approaches, including computer-assisted language learning (CALL), mobile-assisted language learning (MALL), and technology-integrated language learning (TILL).

CALL is defined as the utilization of computers and computer-based resources to enhance the learning and teaching processes (Levy, 1997). It is characterized as a method through which learners enhance their language skills by utilizing a computer (Beatty, 2013). In other words, any form of computer technology that is integrated into the learning process can be categorized as CALL practices (Tafazoli et al., 2019). MALL originated as a subset of mobile learning, driven by the growing interest in utilizing mobile devices for language education (Viberg & Gronlund, 2012). Loewen et al. (2019) further elaborate on it as a form of learning, both formal and informal, facilitated by various portable devices regardless of time and location. In the realm of mobile learning, mobility can be implied as the primary distinguishing feature. Of all, TILL encompasses the integration of technology into language learning without specifically categorizing the types of technological tools used (Golonka et al., 2014). In this sense, it can be characterized as an approach employing digital technologies for various purposes, including activities such as online dictionary use, communication, news reading, content production, participation in discussions, music listening, gaming, and language skill practice, utilizing a combination of hardware, software, and the Internet.

Among these alternatives, it can be stated that MALL is the most preferred one as it brings numerous benefits to learners' language learning through various programs and applications. For instance, mobile devices are more convenient to carry, more accessible for most learners and provide flexibility in terms of temporal and spatial constraints (Burston & Giannakou, 2022; Cakmak, 2029; Chen et al., 2020; Gonulal, 2019; Karakaya & Bozkurt, 2022; Loewen et al., 2019; Shadiev et al., 2020; Wei & Chou, 2020). Moreover, digital tools and applications facilitate personalized learning experiences at learners' own pace according to their needs and preferences (Lin & Lin, 2019; Shortt et al., 2023). These tools enhance access to authentic and diverse language resources, allowing learners to immerse themselves in real-world language contexts (Repetto et al., 2023; Zhang & Zou, 2022). Moreover, most digital tools provide immediate and constructive feedback, promoting self-assessment and autonomous learning (García Botero et al., 2019; Klimova, 2019). The interactive nature of technology encourages active engagement, fostering communication and collaboration among learners in local and global senses (Akkara et al., 2020; Hoi & Mu, 2021; Tragant et al., 2022). Furthermore, technology integration supports the development of digital literacy (Hamad, 2023), an essential skill in today's digital age, and enhances language skills.

Regarding language skills, there are many studies focusing on the role of technology and educational technologies in learners' achievement and highlighting their contributions to language instruction from the learners' and teachers' perspectives. To illustrate, with the use of multimedia resources, learners can engage with authentic language content, which aids in improving their listening and speaking abilities (Islam & Hasan, 2020; Hadi, 2020; Kassaie et al., 2021; Lutfi, 2020; Rajendran & Yunus, 2021). Digital platforms provide opportunities for extensive practice, enabling learners to reinforce vocabulary and grammar structures in real-life contexts (Alhuwaydi, 2022; Ekinci, 2020; Paris et al., 2021; Shi & Tsai, 2022; Yang et al., 2021). Technology also facilitates communication and collaboration among learners, helping them interact with native speakers and peers worldwide, thus enhancing their proficiency in writing and speaking (Al-Shehab, 2020; Gael & Elmiana, 2021; Kessler et al., 2023). In summary, technology integration in language learning offers a diverse range of benefits, empowering learners to develop their language skills comprehensively and effectively.

Literature

Educational technologies in language learning

Educational technologies for language learning refer to a wide range of digital tools, software, applications and resources that are integrated into the language education process to enhance language acquisition and proficiency. The integration of these technologies offers innovative and interactive learning experiences for language learners and provides an enriched educational environment that transcends the traditional confines of language classrooms (Sweller, 2020). Educational technologies also support language learners' motivation, engagement and overall learning outcomes (Bedenlier et al., 2020; Bond et al., 2020). Another contribution of these technologies to the language learning process is their ability to cater to learners' individual needs, preferences and learning styles (Granić & Marangunić, 2019).

Numerous studies have demonstrated the positive impact of using educational technologies to support language learning and enhance language skills among learners. For instance, Erarslan (2019) explored university students' perceptions of Instagram as an educational platform for language learning purposes, and the findings revealed that Instagram was preferred by most students for educational purposes. Ajisoko (2020) examined the effectiveness of Duolingo in improving students' vocabulary at the tertiary level, and it was found that Duolingo, as an educational tool, positively affected students' performance. Fitria (2021) investigated whether Grammarly, an online writing assistant, improved the writing performance of the students, and there was a notable improvement in writing quality in different aspects, such as spelling, sentence structure, and grammar rules. Kholis (2021) used the ELSA Speak application to promote the pronunciation skills of higher education learners, and the results demonstrated that ELSA Speak effectively enhanced students' pronunciation skills. It was also concluded that receiving instant feedback motivated learners and made them active in the learning process. Rahmania and Mandasari (2021) explored learners' perceptions of the use of JOOX, an application to improve pronunciation skills. The findings revealed that it had great potential to improve their pronunciation skills, particularly through the lyrics feature provided by the app. In their study, Taebenu and Katemba (2021) utilized Memrise to develop the vocabulary knowledge of learners, and the findings showed that it was an effective tool to improve their vocabulary knowledge.

To sum up, the related literature underscores the positive impact of educational technologies on language learning, emphasizing their potential to improve various language skills and provide comprehensive language support. At this point, it can be said that the integration of these technologies in language education is a requirement to meet the evolving demands of language learners in the digital age.

VoScreen as an educational tool

VoScreen is an innovative and interactive language learning platform designed to enhance students' listening skills and foreign language proficiency. This application provides a dynamic and engaging environment where learners can immerse themselves in authentic spoken language content, which is a crucial component of language acquisition. VoScreen primarily focuses on improving listening comprehension, a skill vital for effective communication and language proficiency. At its core, VoScreen offers a diverse library of video clips, ranging from real-life conversations to authentic media content, all meticulously selected to cater to different language proficiency levels. These clips are complemented by a set of comprehensive features, including subtitles, interactive quizzes, and personalized feedback, all designed to empower learners on their language acquisition journey. One of the distinctive features of VoScreen is its adaptability to learners of various proficiency levels, making it an invaluable resource for beginners and advanced language learners alike. The platform encourages self-paced learning, active engagement with the material, allowing users to practice listening comprehension and assess their progress through interactive exercises.

Throughout these interactive practice sessions, learners actively watch video clips and are tasked with selecting the sentence that most accurately encapsulates the content of the video within a predefined time limit. An interesting feature of VoScreen is the provision of subtitles during the question-answering process, offering learners additional support in understanding spoken language nuances. Beyond the correctness of their responses, each answer is meticulously evaluated, taking into account the response time. This time-sensitive evaluation contributes to a comprehensive performance score, providing learners with valuable feedback on their overall proficiency and responsiveness during the practice sessions. VoScreen, with its multimedia and time-pressured approach, not only enhances listening skills but also introduces an element of gamification, making the language learning experience engaging and effective. This versatility makes VoScreen an effective tool to incorporate into the selected course as it aligns with the goals to enhance listening skills and promote language proficiency among the students.

When the related literature is examined, it is seen that several studies have investigated the impact of Voscreen on various aspects, including vocabulary improvement, listening, and self-regulated learning. Carrión et al. (2021) explored the potential correlation between the regular use of VoScreen and the academic performance of English language students at the tertiary level. The findings revealed that students had higher performance at the end of the intervention. Yuceturk and Bergil (2021) employed Voscreen to enhance listening and comprehension skills among 4th-grade students beyond the school environment. The findings of the study indicated a significant improvement in listening and comprehension skills for students in the experimental group who interacted with the target language through the Voscreen application. Altug and Onal (2022) focused on the impact of VoScreen on prep-class students' vocabulary achievements and their attitudes toward ICT tools. The findings indicated that incorporating VoScreen into language instruction had notable benefits for vocabulary teaching and learning. Celik (2022) assessed the VoScreen application's effectiveness in promoting self-regulation in English language learning based on user feedback and the findings indicated that VoScreen was considered a useful application as it facilitated English language learning.

In sum, it can be said that VoScreen is a promising tool for enhancing language skills, particularly listening skills and can be used in conjunction with other technological and traditional teaching methods to provide a comprehensive language learning experience. Therefore, the current study intends to explore whether VoScreen as an educational tool increases the learners' achievement level in listening. To achieve this aim, the study addresses the following research questions:

1. Is there a statistically significant difference between the students' pretest listening scores before experiencing the VoScreen application and their posttest listening scores after receiving the VoScreen intervention?
2. What are the students' perceptions of the integration of VoScreen in developing listening skills?

2. Methodology

2.1. Research Design

In this study, an embedded mixed-methods research design was employed. To achieve this, the researcher began with quantitative data collection and analyzed the data. Then, qualitative data were collected to explain the underlying reasons or motivation behind the quantitative findings. The incorporation of both quantitative and qualitative data provided a more comprehensive and well-rounded perspective on research findings (Ozmen & Karamustafaoglu, 2019). The quantitative component involved pretest and posttest scores, allowing for a statistical evaluation of the intervention's impact on a single group of participants. The qualitative aspect, on the other hand, involved gathering learners' experiences and perspectives through eight open-ended questions, providing valuable insights into the learning process.

2.2. Data Collecting Tools

The instruments used to collect quantitative data were pretest and posttest while an evaluation and suggestion form was utilized to gather qualitative data.

Pretest and Posttest

A pretest consisting of 20 multiple-choice questions was administered to assess the students' listening comprehension. These questions were taken from an electronic book titled "Oxford Q Skills for Success: Listening and Speaking" and adjusted based on their language proficiency level. They were carefully reviewed by two experts in the field of foreign language education to ensure content validity. Additionally, to assess construct validity, a thorough examination was undertaken to determine how effectively the test measured the intended construct. The experts in the field of foreign language education evaluated the alignment of the test questions with the target language skill. A thorough analysis of the test items was conducted to ensure that they accurately reflected the aspects of listening comprehension it was aimed to assess. This multi-faceted evaluation allowed the researcher to establish the construct validity of the test used in the current study. Employing multiple-choice questions was primarily influenced by their alignment with the format presented in the VoScreen application, aiming to provide a consistent measurement of students' listening skills relative to their experiences with VoScreen, which enhanced the content validity. A comprehensive explanation of the research model, data collection tools and implementation procedures was provided to establish external validity. The use of multiple-choice questions was preferred due to their alignment with the format presented in the VoScreen application, thus enhancing the content validity. The decision to employ multiple-choice questions was primarily influenced by their alignment with the format presented in the VoScreen application, which aimed to deliver a consistent measurement of students' listening skills relative to their experiences with VoScreen, which contributed to the assessment's reliability.

Similarly, a parallel procedure was implemented for the posttest. It also consisted of 20 multiple-choice questions that were identical to the ones used in the pretest. These questions were carefully designed to assess the students' listening comprehension abilities both before and after the intervention with VoScreen. This consistent approach in using the same questions for both the pretest and posttest allowed for a direct comparison of the students' progress and ensured the reliability and validity of the data.

Evaluation and suggestion form

A form including questions on the evaluation of the intervention and the students' suggestions was utilized to gain a deep understanding of the students' perspectives on the use of VoScreen to improve listening skills. It comprised two sections. In the first section, five questions were included to gather demographic information, including age, proficiency level and gender. The second section of the form consisted of four open-ended questions specifically designed to explore the role of Voscreen in improving listening skills, its perceived benefits and drawbacks in enhancing the target skill, and learners' suggestions for optimizing the learning process. Based on the relevant literature, the questions were modeled by the researcher. To ensure the accuracy and validity of the questions, they were thoroughly reviewed and revised by the researcher and another expert in the field before implementation.

2.3. Study Group

The study involved 45 first-year students (15 male and 30 female), who were enrolled in the ELT department of a state university in Turkiye. Their ages ranged from 17 to 24. The proficiency level of the students was assumed to be B1 since they had successfully completed prep-class education. These students were selected through purposive and convenient sampling methods, considering the constraints posed by limited time, resources, and available workforce. Despite their prior experiences using various digital tools and applications to enhance their English language skills, the students had not previously encountered Voscreen, making this their first exposure to this specific educational technology. This approach, which included participants from diverse backgrounds, ensures that the research findings are comprehensive and more reflective of the broader student population within the ELT department. This diverse representation among the participants contributes to the richness and applicability of the study's outcomes.

2.4. Data Analysis

To determine the normality of the distribution, Shapiro-Wilk tests were conducted on the quantitative data obtained from the pretest and the posttest. Since the sample size was below 50 (Buyukozturk, 2011), the results were expected to have p-values greater than 0.05 for a normal distribution. The results indicated that the data related to the pretest listening scores ($p = .132$, $p > .05$) and the posttest listening scores ($p = .095$, $p > .05$) exhibited a normal distribution. Based on the normality test results and the absence of a control group, the Paired Samples T-test was preferred.

Conventional content analysis was adopted to analyze the findings of the evaluation and suggestion form through four open-ended questions. While analyzing the answers, a cross analysis was performed to ensure their validity. With this aim, the answers to the same questions were evaluated at the same time. To increase reliability, the answers were checked three times. In the first examination, memos were taken. In the second one, potential codes, categories and themes were created. Finally, the final forms were created.

2.5. Validity and Reliability

In this qualitative study, various measurements were implemented to ensure the validity and reliability of the research. The researchers provided detailed explanations of the data collection process and the research procedure to enhance the research's validity. Direct quotations from the participants' statements were used as a means to reinforce the validity of the findings (Gurbuz & Sahin, 2014). To establish internal validity, the data were independently analyzed by two researchers, following the approach suggested by Merriam (2013).

In the assessment of the current study, the interview questions were modeled after those used in prior studies and they were refined with the insights from external evaluators in the field. An inter-coding process was applied to increase the internal reliability of qualitative data. Two raters independently coded the transcripts and discussed their codes, categories, and themes. Additionally, the findings were discussed in the context of other studies in the literature to establish external reliability. These comprehensive measures enhance the credibility and consistency of the research in an academic context.

2.6. Research Procedures

Initially, the students underwent a pretest evaluating their listening skills. The data collection process was carried out in a course titled "Listening Skills I". The participants attended two-hour sessions in a face-to-face classroom per week. The participants were supposed to practice on VoScreen outside the classroom for 15 weeks. The initial three weeks were dedicated to introducing and familiarizing the participants with the Voscreen application. Subsequently, 12 weeks were utilized for collecting the data. An observation group was formed, and the researcher monitored the participants' scores. To encourage regular practice, the researcher recorded their scores weekly. At the end of the 12-week period, a posttest was conducted to evaluate their progress.

In order to gather qualitative data after the implementation, the participants were asked to complete evaluation and suggestion forms. When filling out the forms, L2 was preferred. The process lasted approximately 15 minutes. Subsequently, the obtained data were analyzed by the researcher and a field expert.

3. Findings

The findings based on the research questions are presented in this section. The analysis of the quantitative data revealed that there was a statistically significant difference between the pretest and posttest listening scores of the participants. The qualitative data reflected the students' experiences and perceptions of the use of the VoScreen application.

RQ1

RQ1 aimed to explore whether the VoScreen application had a positive impact on the participants' listening comprehension. A pretest and a posttest on listening skills were applied. In order to determine whether the pretest and posttest scores differed significantly before and after the intervention, the Paired Samples T-test was conducted. The findings of the analysis are displayed in Table 1.

Table 1.

Paired Samples T-test Results for Pretest and Posttest Listening Scores

			95 % Confidence Interval of the Difference				
Pretest listening-Posttest listening	M	SD	Lower	Upper	t	df	p
	-8.8666	3.066631	-9.78789	-7.94544	-19.398	44	.000

The findings demonstrated a significant improvement in the listening comprehension of the groups between their pretest scores and their posttest scores ($t_{(44)} = -19.398$, $p < 0.05$). These results support the effectiveness of the intervention in enhancing listening comprehension among the students.

RQ2

RQ2 focused on exploring how students perceived the incorporation of VoScreen in enhancing their listening skills beyond the classroom. Qualitative data were collected through evaluation and suggestion forms and the content analysis emerged three primary themes: (1) the benefits of VoScreen on listening skills, (2) the drawbacks of VoScreen on listening skills, and (3) suggestions for effective use of VoScreen.

Theme 1: The benefits of Voscreen on listening skills

The first theme of the study focused on the learners' perceived advantages of VoScreen for the improvement of listening skills. Based on the answers, two main categories were created: "tool-based benefits" and "course-based benefits". Table 2 presents the related codes and categories in this theme.

Table 2.

The Benefits of VoScreen on Listening Skills

Theme 1: The Benefits of VoScreen on Listening Skills			
		N	F
Category 1: Tool-based benefits	Developing listening	41	17.9
	Developing pronunciation	33	14.5
	Developing vocabulary	26	11.3
	Being familiar to different accents	19	8.3
	Exposing to real-life conversations	16	7

	Accessibility beyond the classroom	13	5.6
	Versatility in terms of content	10	4.3
	Increased concentration	8	3.5
	Enjoyable learning process	6	2.6
	Competitive learning process	25	11
Category 2: Course-based benefits	Increased motivation	17	7.5
	Self-disciplined study	15	6.5

The data revealed that a great majority of the participants agreed on the contribution of VoScreen to their listening skills. In relation to the second code, developing pronunciation, some participants also pointed out the positive impact of the selected tool on their pronunciation skills. One of them (P43) expressed her opinions about its potential for pronunciation with the following statements*: "The application helped me improve myself not only in terms of listening skills but also pronunciation skills."* In a similar way, some participants pointed out the opportunity to see the subtitles after listening, which enabled learners to learn new words and improve their vocabulary knowledge. Moreover, one participant (P3) underlined the positive impact of VoScreen on learning synonyms of words specifically due to the subtitles on option and the paraphrased form of the correct answers with the following statements: *"I like the application as it offers "subtitles on" and "subtitles of" options so that I can see new words and learn the synonyms of these words."*. Sharing a similar perspective, another participant (P27) stated: *"In my opinion, the application is beneficial to vocabulary development. During the practice, I had an opportunity to see different phrasal verbs and synonyms of the words."* Being familiar with different accents, the fourth code, was stated by several participants. One of the participants (P42) stated its role with these sentences: *"At first, I had difficulty understanding different accents in the video clips. For example, I could not catch all the things they said if the speakers were British. However, as I practiced, I became more capable of understanding what they said."* The exposure to daily life language through authentic videos presented by VoScreen was stated as another in the first category. One participant (P37) emphasized its contribution as follows: *"During practice, I watched video clips belonging to various movies and most of them were real life conversations. Thanks to it, I could learn structures and words used commonly in daily life."* Related to the practical use of the tool beyond the classroom, some students highlighted how they easily reached the content and practiced. One student (P18) indicated: *"I can say using VoScreen anywhere and anytime was the biggest advantage of the learning process."* The seventh code, versatility in terms of content, reflected the participants' anticipation of the exposition to numerous and different types of content in terms of language, structure, characters and movie types. One participant (P12) expressed his experience with the following: *"Every clip I see has different characters, different topics and different language use. I really enjoyed the diversity of the content."* In line with the same code, another participant (P36) commented: *"The application provides us with numerous and different videos. I believe it develops me both educationally and culturally as I learned a lot apart from the language itself."* Some participants mentioned that it was easy to concentrate on what they said due to the short videos, which affected their listening skills in a positive way. One participant (P1) indicated its role in concentration as follows: *"There was a short text to follow, and I was able to focus on what they were talking about. It helped me understand better."* Referring to the last code in the first category, some participants noted that VoScreen presented them with an enjoyable learning journey. One participant (P30) reported: *"I think this application developed my listening skills through funny videos. I enjoyed it a lot."*

In the second category, the students highlighted the course-based benefits of a technology-supported language learning process. Related to the learning process, some participants underlined the competitive atmosphere of the process, where they studied to get higher scores. One participant (P32) commented: *"It*

was like a competition and I and some of my friends were ambitious about being winners." Subsequently, according to some participants, this competitive environment increased their motivation level, which was indicated as another code in the second category. One participant (P9) expressed her feelings with the following: *"When I saw the scores of my friends, I became more motivated to keep going."* Referring to the last code, self-disciplined study, a quote from one participant (P1) revealed: *"As our scores were kept weekly, I felt the need to study on a regular basis, which provided me with a self-disciplined learning process."*

Overall, the incorporation of VoScreen into the learning process resulted in significant advancements for the students, not only in the target skill but also in various sub-skills, including pronunciation and vocabulary. The utilization brought about several advantages, such as raising awareness of different accents, providing exposure to authentic language use in daily life, offering diverse content, ensuring easy accessibility, and elevating motivation levels. Additionally, the students expressed contentment with the practical and enjoyable nature of the activities facilitated by the application.

Theme 2: The drawbacks of Voscreen on listening skills

In the second theme, the disadvantages of using VoScreen with the aim of improving listening skills were examined. The data revealed two main categories: tool-based drawbacks and course-based drawbacks. The related codes are indicated in Table 3.

Table 3.

The Drawbacks of VoScreen on Listening Skills

Theme 2: The Drawbacks of VoScreen on Listening Skills			
		N	F
Category 1: Tool-based drawbacks	Online use (Internet)	16	30.8
	Extensive repetition	13	25
Category 2: Course-based drawbacks	Competitive learning environment	14	26.9
	Long-term study	9	17.3

The analysis showed that some students had problems with the Internet connection, which prevented them from studying effectively. One participant (P39) pointed out this problem as follows: *"As I stayed in the dormitory, my Internet connection was not at the desired level. Therefore, I could not reach the content easily in some situations."* Another participant (P41) with a similar opinion indicated: *"There were some connection problems related to the Internet in the place I stayed, which affected my learning process in a negative way."* Some participants also acknowledged the negative feelings caused by extensive repetition in some situations. One participant's comment (P4) is as follows: *"It was a bit demotivating for me as it is a repetitive platform."* Another participant (P19) underlined the negative impact of repetition with the following statement: *"I had to watch the same video a few times. It was sometimes boring to see it repeatedly."*

In the second category, the data highlighted the students' dissatisfaction related to the competitive learning environment and long-term study, which were the two codes of this category. Despite some participants' anticipation, some participants stated that they were negatively influenced due to the requirement to steadily study like a competition. One participant (P21) showed her concern: *"The feeling of competition and the thought of not being able to pass the others may prevent someone from using the application."* Another

participant (P41) expressed similar thoughts with these sentences: *"Grading is a demotivating factor for me. It was like a competition, and I had difficulties keeping studying." The duration of the study emerged as the last code in this category.* A quote from one of the participants (P31) confirmed the negative influence of the duration: *"The time span was too long to motivate myself to study."*

In summary, repetition of the same question and Internet connection problems had a negative impact on the effective completion of the practice. The students also reported that the competitive learning environment and long-term studies led to some negative feelings in the learning process.

Theme 3: Suggestions for effective use of VoScreen

The last theme is related to the students' suggestions for more effective VoScreen integration. Two main categories were identified in this theme: tool-based suggestions and course-based suggestions. The related codes in each category are shown in Table 4.

Table 4.

Suggestions for Effective Use of VoScreen

Theme 3: Suggestions for Effective Use of VoScreen			
		N	F
Category 1: Tool-based suggestions	Including more content	18	23.2
	Providing longer video clips	13	16.7
	Adding badges	7	8.9
Category 2: Course-based suggestions	Daily practice	26	33.3
	Short-term study	14	17.9

As revealed in the first code within the tool-based category, the data indicated a desire for various content such as podcasts and music to enhance listening comprehension. One of the participants (P21) stated her alternative option in this way: *"It would be great if songs with lyrics were included in the activities."* The desire for longer videos emerged as another code in the first category. One of the participants (P43) recommended: *"The videos must be longer so that it allows the higher-level students to study and improve themselves."* As an alternative, two participants (P12, P30) mentioned the potential contribution of including badges, which may be a motivating factor for some users.

In the second category, despite the weekly evaluation, some participants had thoughts on the more beneficial influence of daily practice. One participant (P38) commented on this code as follows: *"We should practice on VoScreen every single day if we want to be successful."* In relation to the last code, short-term study, some participants believed that short-term study would be more effective for their skills because of some impeding factors. One of them (P27) stated his experiences with the following statement: *"It was difficult to study for longer weeks due to the competitive atmosphere of the application. The duration must be decreased."*

In summary, the participants mostly exhibited positive attitudes towards the integration of VoScreen in the language learning process, acknowledging its potential benefits for language proficiency improvement and some challenges related to the selected tool and its implementation. The students' evaluation provided valuable feedback and recommendations to optimize the process, including the study span, involvement of different activities and badges, the need for longer videos, especially for higher-level students, and daily practice.

4. Discussion, Conclusion and Suggestions

This research aimed to explore the impact of an educational tool, the VoScreen application, on the students' listening comprehension and their perspectives on the improvement of the target skill. The findings demonstrated that the use of VoScreen significantly contributed to students' listening skills besides pronunciation and vocabulary as sub-skills. This result can be explained by the familiarity of students with digital tools as digital natives. To illustrate, in their study focusing on the digital literacy levels of the students, Inan Karagul et al. (2021) conclude that the difficulties the students have are mainly caused by a limited or lack of digital literacy skills. Similarly, Arsyad and Villia (2022) state that the more familiar the students are with digital tools, the more successful they will be.

The significant results can also be explained by the competitive environment provided by VoScreen with the grading tables showing their scores among the group members and users all over the world. This consideration highlighting the positive correlation between achievement and the competitive environment is supported by Chen et al.'s (2020) study focusing on the role of game-based learning processes. Likewise, in their systematic review of 10 different digital tools, Zou et al. (2021) confirm the positive influence of competitive learning settings on learning outcomes.

Lastly, motivation can be indicated as the third consideration affecting the students' performance in a positive way. In a self-disciplined learning environment, as the students are able to follow their progress in their group, they become more motivated to keep practicing. In a study examining the role of game-based language learning applications, Gamlo (2019) concludes that learners are more motivated to learn English while they use applications. Similarly, the relation between the students' motivation level and success is affirmed by Abdullaev's (2021) study, in which attitudes, social background and motivation factors are evaluated in terms of achievement.

In relation to the findings of qualitative data obtained from the evaluation and suggestion form, three themes were created: the benefits of VoScreen on listening skills, the drawbacks of VoScreen on listening skills and suggestions for effective use of VoScreen. Satisfaction, as the first consideration, may be among the reasons providing positive feedback on the use of educational technologies in the language learning process. The participants may feel satisfied as they have the opportunity to expose themselves to different accents through the short video clips taken from numerous sources mainly by native speakers, without temporal and spatial limitations. In other words, the application offers many advantageous features at once, which may have made it more attractive. Similar findings concerning the correlation between technology usage, academic achievement, and satisfaction have also been identified in the relevant literature (Hava, 2021; Lu et al., 2022; Qi, 2020; Raygan & Moradkhani, 2022; Taghizadeh & Hasani Yourdshahi, 2020; Yu et al., 2021). Compared to a conventional learning setting, the entertaining role of technology in the learning process may also have yielded positive opinions. Research (Anak Yunus & Hua, 2021; Degirmenci, 2021; Maican & Cocoradă, 2021; Setiawan & Wiedarti, 2020; Yuruk, 2019) highlights the importance of learning settings for overall success.

The second aspect pertains to the challenges encountered during the implementation phase. Predominantly, Internet access has emerged as the primary drawback although we live in a technological era. This finding aligns with the findings of many studies (Agung et al., 2020; Efriana, 2021; Lukas & Yunus, 2021; Metruk, 2020; Murray et al., 2020; Sari, 2020) pointing to Internet access as a potential barrier hindering learners' effective study. The students also indicate that practicing the same questions repeatedly may decrease their motivation. However, the VoScreen application presents each question five times to understand whether the student chooses the correct answer consciously or by chance. This code may have resulted from the students' unawareness of the indented purpose of the program.

The final aspect explored in relation to the second research question revolves around the recommendations provided by the students. They report that including various video clips with a longer duration enables them

to enhance their motivation, become more active participants and then improve their proficiency level. Adding badges and achievements also has the potential to motivate learners for active use. This finding aligns with the findings of Joseph et al.'s (2021) study, in which digital badges were used to increase the students' attendance and motivation, and Alt's (2023) study exploring the motivational impact of digital badges. In the second category, the time span and the need for daily practice are suggested. Related to the time span, it can be inferred that educational tools may decrease the motivation level of students in long-term studies. This finding is affirmed by Abdullaev's (2021) study, in which establishing short-term goals such as passing an exam is stated as more motivating for the learners.

In conclusion, this study aligns with existing research on educational technologies, indicating that language learning tools can be beneficial for second language learners and help them improve their language proficiency, especially when they are used on a regular basis. The study found a significant difference between the pretest and posttest listening scores of the participants within a 12-week study outside the classroom. Therefore, it can be stated that the VoScreen application had a positive impact on learners' achievement levels in listening comprehension. Additionally, the qualitative data analysis revealed that by offering many advantages such as rich content, awareness of different accents, increased motivation, exposure to real life conversation and an entertaining learning environment, the VoScreen application supports learners not merely in terms of language skills and some sub-skills but in other aspects.

Considering the increasing number of educational tools in language education, this study offers valuable insights for researchers regarding learners' perceptions of the strengths and weaknesses of online courses and essential tips for developing language skills in learning settings supported by various educational technologies. Based on the findings and the students' perceptions and experiences, several recommendations are proposed to expand the scope of future research. Firstly, short-term studies should be conducted to assess the impact of the practice, as participants identified the time span as a major drawback that could affect motivation. Secondly, considering the potential positive impact on participants' motivation, a partial or full integration of the practice into the syllabus is suggested. Thirdly, research should be undertaken at various educational levels to examine potential variations based on these levels. Lastly, it is essential to explore the role of both intrinsic factors such as learners' personal motivation, interest, and self-regulation and extrinsic factors including the quality of instructional materials, support systems, and the learning environment that might influence the effectiveness of MALL. Investigating these intrinsic and extrinsic factors will provide a more comprehensive understanding of the complex dynamics involved in language learning using mobile-assisted language learning tools and offer targeted recommendations to enhance the efficacy of these tools in educational settings.

References

Abdullaev, Z. K. (2021). Second language learning. *Mental Enlightenment Scientific-Methodological Journal*, *2021*(06), 1-11.

Agung, A. S. N., Surtikanti, M. W., & Quinones, C. A. (2020). Students' perception of online learning during COVID-19 pandemic: A case study on the English students of STKIP Pamane Talino. *SOSHUM: Jurnal Sosial Dan Humaniora*, *10*(2), 225-235.

Ajisoko, P. (2020). The use of Duolingo apps to improve English vocabulary learning. *International Journal of Emerging Technologies in Learning (IJET)*, *15*(7), 149-155.

Akkara, S., Anumula, V., & Mallampalli, M. (2020). Impact of Whatsapp interaction on improving L2 speaking skills. *International Journal of Emerging Technologies in Learning (IJET), 15*(3), 250-259.

Alhuwaydi, A. A. (2022). A Review on vocabulary learning-designed MALL applications in the EFL context. *Theory and Practice in Language Studies*, *12*(10), 2191-2200.

Alt, D. (2023). Who benefits from digital badges? Motivational precursors of digital badge usages in higher education. *Current Psychology*, *42*(8), 6629-6640.

Altug, S. A., & Onal, A. (2022). Using VoScreen to enhance English language vocabulary learning. *I--Manager's Journal on English Language Teaching*, *12*(1), 25-38.

Anak Yunus, C. C., & Hua, T. K. (2021). Exploring a gamified learning tool in the ESL classroom: The case of Quizizz. *Journal of Education and e-Learning Research*, *8*(1), 103-108.

Arsyad, S., & Villia, A. S. (2022). Exploring the effect of digital literacy skill and learning style of students on their meta-cognitive strategies in listening. *International Journal of Instruction, 15*(1), 527-546.

Beatty, K. (2013). *Teaching & researching: Computer-assisted language learning*. Routledge.

Bedenlier, S., Bond, M., Buntins, K., Zawacki-Richter, O., & Kerres, M. (2020). Facilitating student engagement through educational technology in higher education: A systematic review in the field of arts and humanities. *Australasian Journal of Educational Technology*, *36*(4), 126-150.

Bond, M., Buntins, K., Bedenlier, S., Zawacki-Richter, O., & Kerres, M. (2020). Mapping research in student engagement and educational technology in higher education: A systematic evidence map. *International Journal of Educational Technology in Higher Education*, *17*(1), 1-30.

Burston, J. & Giannakou, K. (2022). MALL language learning outcomes: A comprehensive meta-analysis 1994–2019. *ReCALL, 34*(2), 147–168.

Buyukozturk, S. (2011). *Sosyal bilimler icin veri analizi el kitabi*. Ankara*:* Pegem Akademi Yayincilik.

Cakmak, F. (2019). Mobile learning and mobile assisted language learning in focus. *Language and Technology*, *1*(1), 30-48.

Carrión, C. R. N., Astudillo, N. C. L., Báez, E. C. C., & Maiguashca, J. A. (2021). Análisis empírico sobre el rendimiento académico de los estudiantes en la asignatura de inglés con el uso de Voscreen. *Revista EDUCARE-UPEL-IPB-Segunda Nueva Etapa 2.0*, *25*(1), 240-258.

Celik, B. (2022). Evaluation of VoScreen application used in self-regulation in English language learning according to user opinions. *Canadian Journal of Language and Literature Studies*, *2*(4), 13-22.

Chen, Z., Chen, W., Jia, J., & An, H. (2020). The effects of using mobile devices on language learning: A meta-analysis. *Educational Technology Research and Development, 68*(4), 1769–1789.

Chen, C. H., Shih, C. C., & Law, V. (2020). The effects of competition in digital game-based learning (DGBL): a meta-analysis. *Educational Technology Research and Development*, *68*, 1855-1873.

Creswell, J. W. (2004). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research. New York: Pearson.

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.

Efriana, L. (2021). Problems of online learning during Covid-19 pandemic in EFL classroom and the solution. *JELITA*, *2*(1), 38-47.

Ekinci, E. (2020). Mobile assisted language learning (MALL) As a foreign language aid: A literature review. *Pearson Journal of Social Sciences & Humanities*, *5*(9), 152-166.

Erarslan, A. (2019). Instagram as an education platform for EFL learners. *Turkish Online Journal of Educational Technology-TOJET*, *18*(3), 54-69.

Fitria, T. N. (2021). Grammarly as AI-powered English writing assistant: Students' alternative for writing English. *Metathesis: Journal of English Language, Literature, and Teaching*, *5*(1), 65-78.

Gael, K. E., & Elmiana, D. S. (2021). Mobile-assisted language learning (MALL) in English language acquisition: A critical literature review. *Journal of English Language Teaching Innovations and Materials (Jeltim)*, *3*(2), 76-86.

Gamlo, N. (2019). The impact of mobile game-based language learning apps on EFL learners' motivation. *English Language Teaching*, *12*(4), 49-56.

Garrison, D. R., Anderson, T., & Archer, W. (2001). Critical thinking, cognitive presence, and computer conferencing in distance education. *American Journal of Distance Education, 15*(1), 7-23.

Golonka, E. M., Bowles, A. R., Frank, V. M., Richardson, D. L., & Freynik, S. (2014). Technologies for foreign language learning: A review of technology types and their effectiveness. *Computer Assisted Language Learning*, *27*(1), 70-105.

Gonulal, T. (2019). The use of Instagram as a mobile-assisted language learning tool. *Contemporary Educational Technology*, *10*(3), 309-323.

Granić, A., & Marangunić, N. (2019). Technology acceptance model in educational context: A systematic literature review. *British Journal of Educational Technology*, *50*(5), 2572-2593.

Gurbuz, S., & Sahin, F. (2014). *Sosyal bilimlerde arastirma yontemleri*. Ankara: Seckin Yayincilik.

Hadi, M. S. (2020). Mobile-assisted language learning (MALL) in EFL listening: An Indonesian Perspective. *International Journal of Advanced Science and Technology*, *29*(7), 3838-3845.

Hamad, W. (2023). Students' experiences of learning in virtual classrooms facilitated by Google Classroom. *Journal of Educational Technology and Online Learning*, *6*(2), 362-383.

Hava, K. (2021). Exploring the role of digital storytelling in student motivation and satisfaction in EFL education. *Computer Assisted Language Learning*, *34*(7), 958-978.

Hoi, V. N., & Mu, G. M. (2021). Perceived teacher support and students' acceptance of mobile-assisted language learning: Evidence from Vietnamese higher education context. *British Journal of Educational Technology*, *52*(2), 879-898.

Inan Karagul, B., Seker, M., & Aykut, C. (2021). Investigating students' digital literacy levels during online education due to COVID-19 pandemic. *Sustainability*, *13*(21), 11878.

Islam, A. S., & Hasan, M. (2020). The effectiveness of mobile assisted language learning (MALL) on ESL listening skill. *NOBEL: Journal of Literature and Language Teaching*, *11*(2), 188-202.

Joseph, M. A., Natarajan, J., Buckingham, J., & Al Noumani, M. (2021). Using digital badges to enhance nursing students' attendance and motivation. *Nurse Education in Practice*, *52*, 103033.

Karakaya, K., & Bozkurt, A. (2022). Mobile-assisted language learning (MALL) research trends and patterns through bibliometric analysis: Empowering language learners through ubiquitous educational technologies. *System, 110*, 102925.

Kassaie, L., Shairi, H. R., & Gashmardi, M. R. (2021). Integrating MALL into the classroom: The cultural and pedagogical impact of authentic podcasts on FFL learners' listening and speaking skills. *International Journal of Society, Culture & Language*, *9*(1), 69-85.

Kessler, M., Loewen, S., & Gonulal, T. (2023). Mobile-assisted language learning with Babbel and Duolingo: comparing L2 learning gains and user experience. *Computer Assisted Language Learning*, 1-25.

Kholis, A. (2021). Elsa speak app: automatic speech recognition (ASR) for supplementing English pronunciation skills. *Pedagogy: Journal of English Language Teaching*, *9*(1), 1-14.

Klimova, B. (2019). Impact of mobile learning on students' achievement results. *Education Sciences*, *9*(2), 90-98.

Levy, M. (1997) *Computer-assisted language learning: Context and conceptualization.* USA: Oxford University Press.

Li, P., & Lan, Y. J. (2022). Digital language learning (DLL): Insights from behavior, cognition, and the brain. *Bilingualism: Language and Cognition*, *25*(3), 361-378.

Lin, J. J., & Lin, H. (2019). Mobile-assisted ESL/EFL vocabulary learning: A systematic review and meta-analysis. *Computer Assisted Language Learning*, *32*(8), 878-919.

Loewen, S., Crowther, D., Isbell, D. R., Kim, K. M., Maloney, J., Miller, Z. F., & Rawal, H. (2019). Mobile-assisted language learning: A Duolingo case study. *ReCALL*, *31*(3), 293-311.

Lu, A., Deng, R., Huang, Y., Song, T., Shen, Y., Fan, Z., & Zhang, J. (2022). The roles of mobile app perceived usefulness and perceived ease of use in app-based Chinese and English learning flow and satisfaction. *Education and Information Technologies*, *27*(7), 10349-10370.

Lukas, B. A., & Yunus, M. M. (2021). ESL teachers' challenges in implementing E-learning during COVID-19. *International Journal of Learning, Teaching and Educational Research*, *20*(2), 330-348.

Lutfi, N. (2020). The Integration of MALL to enhance students speaking skill: An autonomous learning model. *Journal of Foreign Language Teaching and Learning*, *5*(1), 1-19.

Maican, M. A., & Cocoradă, E. (2021). Online foreign language learning in higher education and its correlates during the COVID-19 pandemic. *Sustainability*, *13*(2), 781.

Metruk, R. (2020). Confronting the challenges of MALL: Distraction, cheating, and teacher readiness. *International Journal of Emerging Technologies in Learning (iJET)*, *15*(2), 4-14.

Murray, L., Giralt, M., & Benini, S. (2020). Extending digital literacies: Proposing an agentive literacy to tackle the problems of distractive technologies in language learning. *ReCALL*, *32*(3), 250-271.

Ozmen, H., & Karamustafaoglu, O. (2019). *Egitimde arastirma yontemleri*. Ankara: Pegem Akademi, 2.

Paris, T. N. S. T., Manap, N. A., Abas, H., & Ling, L. M. (2021). Mobile-assisted language learning (MALL) in language learning. *Journal of ASIAN Behavioural Studies*, *6*(19), 61-73.

Qi, X. U. (2020). Applying MALL to an EFL listening and speaking course: An action research approach. *Turkish Online Journal of Educational Technology-TOJET*, *19*(4), 24-34.

Rahmania, A. H., & Mandasari, B. (2021). Students' perceptions towards the use of Joox application to improve students' pronunciation. *Journal of English Language Teaching and Learning*, *2*(1), 39-44.

Rajendran, T., & Yunus, M. M. (2021). A systematic literature review on the use of mobile-assisted language Learning (MALL) for enhancing speaking skills among ESL and EFL

learners. *International Journal of Academic Research in Progressive Education and Development*, *10*(1), 586-609.

Raygan, A., & Moradkhani, S. (2022). Factors influencing technology integration in an EFL context: investigating EFL teachers' attitudes, TPACK level, and educational climate. *Computer Assisted Language Learning*, *35*(8), 1789-1810.

Repetto, C., Di Natale, A. F., Villani, D., Triberti, S., Germagnoli, S., & Riva, G. (2023). The use of immersive 360 videos for foreign language learning: A study on usage and efficacy among high-school students. *Interactive Learning Environments*, *31*(4), 1906-1921.

Sari, F. M. (2020). Exploring English learners' engagement and their roles in the online language course. *Journal of English Language Teaching and Linguistics*, *5*(3), 349-361.

Setiawan, M. R., & Wiedarti, P. (2020). The effectiveness of Quizlet application towards students' motivation in learning vocabulary. *Studies in English Language and Education*, *7*(1), 83-95.

Shadiev, R., Liu, T., & Hwang, W. Y. (2020). Review of research on mobile-assisted language learning in familiar, authentic environments. *British Journal of Educational Technology*, *51*(3), 709-720.

Shi, Y. S., & Tsai, C. Y. (2022). Fostering vocabulary learning: mind mapping app enhances performances of EFL learners. *Computer Assisted Language Learning*, 1-47.

Shortt, M., Tilak, S., Kuznetcova, I., Martens, B., & Akinkuolie, B. (2023). Gamification in mobile-assisted language learning: A systematic review of Duolingo literature from public release of 2012 to early 2020. *Computer Assisted Language Learning*, *36*(3), 517-554.

Sweller, J. (2020). Cognitive load theory and educational technology. *Educational Technology Research and Development*, *68*(1), 1-16.

Taebenu, S. F., & Katemba, C. V. (2021). Vocabulary enhancement through Memrise and Google Classroom. *Journal of Linguistics Literature and Language Teaching*, *5*(1), 228-241.

Tafazoli, D., Huertas-Abril, C. A., & Gomez-Parra, M. E. (2019). Technology-based review on Computer-Assisted Language Learning: A chronological perspective. *Píxel-Bit. Revista de Medios y Educación*, (54), 29-43.

Taghizadeh, M., & Hasani Yourdshahi, Z. (2020). Integrating technology into young learners' classes: language teachers' perceptions. *Computer Assisted Language Learning*, *33*(8), 982-1006.

Tragant, E., Pinyana, À., Mackay, J., & Andria, M. (2022). Extending language learning beyond the EFL classroom through WhatsApp. *Computer Assisted Language Learning*, *35*(8), 1946-1974.

Viberg, O., & Gronlund, Å. (2012). Mobile assisted language learning: A literature review. In *11th World Conference on Mobile and Contextual Learning* (pp 1-8). Helsinki.

Yang, X., Kuo, L. J., Eslami, Z. R., & Moody, S. M. (2021). Theoretical trends of research on technology and L2 vocabulary learning: A systematic review. *Journal of Computers in Education*, *8*(4), 465-483.

Yu, Z., Gao, M., & Wang, L. (2021). The effect of educational games on learning outcomes, student motivation, engagement and satisfaction. *Journal of Educational Computing Research*, *59*(3), 522-546.

Yuruk, N. (2019). Edutainment: Using Kahoot! As a review activity in foreign language classrooms. *Journal of Educational Technology and Online Learning*, *2*(2), 89-101.

Yuceturk, D., & Bergil, A. S. (2021). The impact of the Voscreen application on vocabulary achievement. *Language and Technology*, *3*(1), 21-31.

Zhang, R., & Zou, D. (2022). Types, purposes, and effectiveness of state-of-the-art technologies for second and foreign language learning. *Computer Assisted Language Learning*, *35*(4), 696-742.

Zou, D., Huang, Y., & Xie, H. (2021). Digital game-based vocabulary learning: where are we and where are we going?. *Computer Assisted Language Learning*, *34*(5-6), 751-777.