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80. Mobile assisted language learning: investigating English speaking performance and satisfaction

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Abstract

With their growing popularity, mobile technologies can be seen as having the capacity to enhance language learning by offering learners a flexible and dynamic learning environment that is not limited by time or location. While the integration of technology in foreign language education has demonstrated overall success, including enhanced language learning outcomes through mobile technologies, it is important to acknowledge that there is also research highlighting potential drawbacks. Therefore, conducting further studies in this area remains crucial for a comprehensive understanding. This is more significant when speaking is considered as a skill of paramount importance compared to others and student satisfaction which can lead to overall success of the course. Therefore, the primary goal of this descriptive study is to investigate the potential advantages and consequences of integrating mobile technologies into blended learning language classes. Within this framework, the study focuses on examining the utilization of a recognized Web 2.0 tool, specifically Voki, to assess its effects on the English speaking proficiency and satisfaction perceptions of preparatory school students in blended learning settings. The results of the study reveal that the implementation of Voki leads to a significant enhancement in students' speaking skills, accompanied by a noticeable increase in their satisfaction levels. These findings suggest that intentional integration of mobile technologies into language education, particularly through the utilization of a Web 2.0 tool like Voki with its multimedia capabilities, holds the potential to serve as a valuable educational asset.

Keywords: educational technology, mobile technologies, English speaking, satisfaction, technology integration, Web 2.0, Voki

Mobil destekli dil öğrenimi: İngilizce konuşma performansı ve memnuniyetin araştırılması

Öz

Artan popülaritesi ile mobil teknolojilerin, öğrencilere zaman ve mekânla sınırlı olmayan, esnek ve dinamik bir öğrenme ortamı sunarak dil öğrenimini geliştirme kapasitesine sahip olduğu söylenebilir. Teknolojinin yabancı dil eğitimine entegrasyonu, mobil teknolojiler yoluyla gelişmiş dil öğrenme sonuçları da dahil olmak üzere genel olarak başarılı olsa da, potansiyel dezavantajları vurgulayan araştırmaların da bulunduğunu görmezden gelmemek önemlidir. Bu nedenle, mobil teknolojilere yönelik daha kapsamlı bir anlayış elde edebilmek için bu alanda daha fazla araştırma yapılması önemlidir. Bu durum, konuşma becerisinin diğer becerilere kıyasla daha önemli bir beceri

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olduğu ve öğrenci memnuniyetinin dersin genel başarısına yol açabileceği göz önüne alındığında daha anlamlı olmaktadır. Bu nedenle, bu betimleyici araştırmanın temel amacı, mobil teknolojilerin harmanlanmış öğrenme dil sınıflarına entegre edilmesinin potansiyel avantajlarını ve sonuçlarını incelemektir. Bu çerçevede araştırma, bilinen bir Web 2.0 aracının, Voki'nin, kullanımının, harmanlanmış öğrenme ortamlarında, hazırlık okulu öğrencilerinin İngilizce konuşma yeterliliği ve memnuniyet algıları üzerindeki etkilerini değerlendirmeye odaklanmaktadır. Araştırmanın sonuçları, Voki uygulamasının öğrencilerin konuşma becerilerinde ve memnuniyet düzeylerinde önemli bir artışa yol açtığını ortaya koymaktadır. Bu bulgular, mobil teknolojilerin dil eğitimine amaca uygun olarak entegrasyonunun, özellikle Voki gibi bir Web 2.0 aracının multimedya özellikleri aracılığıyla, eğitime katkı sağlayabilecek önemli bir değer olabileceğini göstermektedir.

Anahtar kelimeler: eğitim teknolojisi, mobil teknolojiler, İngilizce konuşma, memnuniyet, teknoloji entegrasyonu, Web 2.0, Voki

1. Introduction

It is true that today mobile technologies are everywhere attracting the interest of people from different backgrounds and age groups. With their unique features such as providing access to any kind of information quickly and ease of use, people can quickly obtain information by using a smart device (Wang, Tigelaar, Zhou & Admiraal, 2023). This growing popularity has attracted the interest of researchers to facilitate their distinguished features for the purpose of learning objectives. Mobile learning is defined as an educational approach that enables individuals to engage in the learning process using mobile devices at their convenience and location of choice, (Şahan, Çoban & Razı,2016). With the ease of access to information facilitated by mobile technologies, mobile learning encompasses learning through services and resources, unconstrained by temporal or geographical limitations (Cremades, Onieva-López, Maqueda-Cuenca, & Ramĩrez-Leiton, 2019).

The recognition that learning is inherently social has given rise to social learning paradigms, introducing novel terminologies. Given the active and interactive nature of learning, the establishment of a communal environment and the facilitation of positive learning outcomes are found to be fundamental for students (Loh & Ang, 2020). In the context of language learning, mobile technologies are claimed to have the potential to enhance language learning by providing students with a flexible and dynamic learning environment that is not constrained by time or location (Kuimova, Burleigh, Uzunboylu & Bazhenov, 2018). This has led to the increased use and investigation of mobile technologies, giving rise to the term Mobile Assisted Language Learning (MALL). MALL is a form of language learning that facilitates using personalized mobile devices, allowing students to engage in language learning with no time and place boarders (Rezai, Mai & Pesaranghader, 2014). The definition of MALL emphasizes the facilitation of mobile phones or similar wireless-connected devices for teaching and learning objectives. Hence, it can be said that the internet and advancements in technology acted as a significant contributor in language instruction, leading to the popularization of the term MALL. In the same context, the phrase "Web 2.0" denotes a group of tools that are used in conjunction with mobile technologies and are also considered to be a subset of mobile technologies being platforms that allow users to produce and modify information via the internet (Gamji, Kara, Nasidi & Abdul, 2022). Web 2.0 tools facilitate collaboration, the generation of content by users, and interactive experiences, which collectively enhance the dynamic aspect of online interactions.

In line with the communicative approach that has long influenced foreign language instruction, the primary objective of language learning is effective communication through speaking (Keser, 2018). Indeed, speaking proficiency stands as a fundamental indicator of a person's proficiency in a foreign language. Numerous studies have delved into the facilitation of diverse Web 2.0 tools, examining their efficacy and potential advantages within educational settings (Panagiotidis, Krystalli & Arvanitis, 2023; Papadaki, Karagianni & Driga, 2023). Within foreign language education, the central emphasis lies in equipping learners with the ability to communicate effectively. Furthermore, a vital objective of instruction is to enable learners to express themselves understandably in the target language (Demirel, 2014). By the same token, what this study utilizes is a Web 2.0 tool, VOKI, which allows users to create their personalized talking avatars which is expected to enhance users' speaking skill.

One of the earliest definitions of satisfaction is students' attitudes regarding the learning process found on their experiences in the classroom (Elliot & Healy, 2001). Moreover, student satisfaction is usually associated with students' perceptions of the course and their experiences regarding the instructional design (Kuo, Walker, Belland & Schroder, 2013), which is one of the reasons why investigating satisfaction is also significant. Numerous efforts have been undertaken to integrate mobile technology-based learning into school curriculum (Whyley, 2018) and there are still barriers to their real uptake and integration (Nikolopoulou Gialamas, Lavidas & Komis, 2021b).

On the whole, although technology integration in foreign language education has generally shown success (Zhang & Zou, 2022) and mobile technologies tend to enhance language learning outcomes, there is also research highlighting potential drawbacks (Bunting, Segerstad & Barendregtet, 2021). Some applications and tools may be distractive, affecting students' attention, and students may not always hold a favorable opinion of technology use depending on the discipline (Novikova, Bychkova & Novikov, 2022). To fully leverage the opportunities for language learning, research should focus on understanding the affordances of technology (Ziegler, 2016). Therefore, the utilization of mobile technologies and their potential value in language education remain significant areas for further investigation. Exploring the potential of mobile technologies as an integral part of blended learning in language classes is one of the objectives of this study, aiming to shed light on their potential benefits and implications.

2. Literature review

2.1. Mobile assisted language learning

With the global proliferation of portable mobile technologies and the predominant shift of internet usage towards mobile devices (Liu, Hwang, Tu, Ying & Wang, 2021) curiosity among researchers whether these tools offer the capacity for learning on the go, supplanting traditional desktop and laptop computers is increased. In its basic form mobile assisted language learning is usually defined as facilitating mobile technologies to study languages (Kacetl & Klimova, 2019). Within this context, mobile-assisted language learning is recognized as a distinct subset that places particular emphasis on language acquisition Its benefits encompass fostering bi-directional communication between educators and learners, along with enhancing specific skills like speaking and listening (Toland, Mills & Kohyama, 2016).

2.2. Blended learning

The term blended learning is often defined as the integration of face-to-face instruction with online methods, offering advantages for both teachers and students (Müller & Mildenberger, 2021). Blended learning is commonly employed in educational environments to address the needs of today's learners, potentially enhancing student encouragement and commitment by benefiting from mobile technologies (Polakova & Klimova, 2022; Castro, 2019). This approach is widely facilitated in English language classes various contexts, as exemplified by a study conducted by Yang and Kuo (2021). As outlined in the study conducted by Yang and Kuo (2021), the incorporation of blended learning into English as a Foreign Language (EFL) classes can be advantageous for language acquisition due to the heightened engagement exhibited by students in online interactions. Additionally, another study carried out by Ramalingam, Yunus & Şahin (2022) supports the idea that technology-based instruction is a frequently adopted and popular strategy within blended learning approaches for English language education settings.

2.3. Speaking skill

Within language acquisition, the core proficiencies of listening, speaking, reading, and writing hold pivotal significance for a holistic grasp of language and proficient communication. Among these, speaking abilities assume a critical role in employing language within authentic contexts and facilitating effective interpersonal communication. (Parmawati & Inayah, 2019; Riadil, 2020)In terms of foreign language learning, one of the most commonly approved approach is exposure to target language in authentic and real-life scenarios. This approach is particularly valuable for enhancing speaking skills through practical application with which the speaking abilities of students can be enhanced. Although speaking skill is considered as the most essential skill in language learning which involves actively communicating with other users of the target language and engaging in meaningful interactions (Ur, 2012), students are often challenged with speaking due to their apprehensions about making mistakes and feeling anxiety (Yalçın, 2020). Given that students might not encounter as many instances of English exposure outside of school, it becomes crucial to provide them with chances to interact with the language in authentic real-life situations beyond the educational setting. In this sense, leveraging Web 2.0 tools can serve as a complementary resource to address the obstacles linked with foreign language speaking proficiency.

2.4. Satisfaction

As aforementioned, the definition of satisfaction involves attitudes of students in terms of the learning process based on their experiences in the classroom (Elliot & Healy, 2001). Acknowledging that learning is not merely an individual process but a collective and interactive one, the implementation of collaborative learning strategies becomes crucial for upholding a sense of satisfaction and nurturing positive learning outcomes. While categories of student satisfaction are defined as interaction, teacher variables, and technological challenges, the significance of satisfaction is attributed to its close link to academic performance (Elshami et.al., 2021) and the diverse emotions such as sense of detachment can significantly affect the overall course satisfaction (Kear, Chetwynd & Jefferis, 2014). Hence, the degree of satisfaction experienced by students is closely interconnected with their enthusiastic involvement in interactions with fellow peers ultimately leading to satisfaction which holds a crucial role in enhancing the overall educational experience.

2.5. Voki

Voki is a Web 2.0 tool which offers various recording options, including using a microphone or uploading an audio file. Educators have the opportunity to employ these attributes to deliver their content and initiate discussions, whereas learners can employ Voki to hone skills that might be intricate to convey within a conventional classroom environment. Additionally, Voki places emphasis on vocal communication as its core component, necessitating users to either record their voices or compose sentences using phonetic notation to ensure accurate avatar speech. Hence, Voki is believed to be suitable for enhancing speaking skills by enabling practice anytime and anywhere. VOKI's speaking avatars are regarded as supportive resources within the classroom, enabling diverse presentations and aiding learners in enhancing their online speaking abilities (Swendsen, Mondahl & Faizi, 2014). Nevertheless, research also underscores the potential drawbacks of Voki such as the challenge students face by continuing their work later due to some possible technical problems especially regarding the creation of avatars (Anderson, Page & Wandorf, 2013). One notable concern is the potential for distraction, as the process of creating and customizing avatars could consume excessive time, causing students to lose focus on their tasks (Schrock, 2012) which can also be interpreted as the need for further studies in this area.

2.6. Significance of the study and research questions

Speaking abilities have traditionally received less attention in many EFL situations and considered to include diverse challenges such as being exposed to monotonous instruction (Aziz & Kashinathan, 2021) which would prevent students from becoming confident and fluent speakers. In this sense, investigating whether technology can play a crucial role in providing additional opportunities for speaking practice and creating a more interactive and communicative learning environment deserves more attention because by integrating technology into language learning, students can engage in speaking activities beyond the confines of the classroom with their peers and at their own convenience. Needless to say, this can add to their satisfaction which gains its importance from its possible value of leading to better academic performance. Hence, this study aims to investigate the effects of a well-known Web 2.0 tool, namely Voki, on university prep school students' speaking skills and their perceptions of satisfaction in blended learning settings. Thus, the research questions are formed as:

1. What are the effects of Voki-based activities on the speaking performance of students in English classes?

2. What are the students' perceptions of satisfaction regarding Voki-based activities in English classes?

3. Methodology

Before the study was conducted ethical committee report was obtained from Yildiz Technical University.

3.1. Research design

This study can be classified as a descriptive study which employs pre- and post-test experimental design with a control group.

3.2. Participants

Purposive sampling method was used to select the participants who were prep school students at a foundation university in Istanbul. 36 students in total participated in the study, with two classes each with 18 students. Both classes had the same instructor who had seven years of experience. The students were asked to complete the voluntary consent form prior to the study. The students were assumed to be equal as the school followed the same curriculum in all campuses and assigned students to their classes based on their exam results, A2, they sat at the beginning of the term. The school already had its own learning management system and encouraged technology-based activities. The students and the instructors had easy access to technological devices as well as the internet.

3.3. Data collection

Data for this study came from a standardized test, an adapted version of Cambridge Key English Test (KET) speaking exam, given to both groups after the intervention and the e-learning satisfaction scale developed by Gülbahar (2012).

KET is a universally accepted standard test by Cambridge University which is considered a reliable source to determine students' English performances. Since students were placed in their classes based on their exam results, they were considered to be equal before the intervention so they were given the adapted version of the test at the end of the intervention. Following the standard procedures of the speaking exam, students took the speaking exam in pairs and each pair was attributed to 8 to 10 minutes' time interval when they were expected to carry out a conversation while exchanging questions and answers related to the given task.

The 5-point Likert satisfaction regarding e-learning environments scale is subdivided into four distinct dimensions as 'transmission and usefulness', 'instruction content', 'instruction process', and 'interaction and evaluation'. There are 7 items in transmission and usefulness category, 8 items in instruction process, 4 items in instruction content and 10 items in interaction and evaluation. The overall Cronbach coefficient of the scale is 0.97. For the sub-dimensions, Cronbach coefficient values are for transmission and usefulness 0.91, instruction process 0.93, instruction content 0.94 and interaction and evaluation 0.96. In Likert type rating scales, reliability coefficient is measured by Cronbach Alpha coefficient value and the common interpretation of the coefficient value evaluation intervals are as follows (George&Mallery, 2003):

$\alpha \geq 0{,}9$ – Excellent

$0{,}7 \leq \alpha < 0{,}9$ – Good

$0{,}6 \leq \alpha < 0{,}7$ – Acceptable

$0{,}5 \leq \alpha < 0{,}6$ – Weak

$\alpha < 0{,}5$ – Unacceptable

Since the Cronbach Alpha value of the satisfaction scale is 0.97, it can be concluded that the reliability of the satisfaction scale is excellent. To ensure sufficient study time and increase the reliability of the results, the Voki intervention was administered during an eight-week period to the experimental group.

The control group, however, received the conventional method recommended in the relevant training program, following the same process. By implementing the interventions in both groups, the study aimed to compare the effects of Voki (experimental group) with the conventional method (control group) in a balanced and equivalent manner. Two scorers evaluated the speaking exam and interrater reliability for both raters were found to be .080 at the significance level of .001.

3.4. Intervention

Voki was introduced into English language classrooms with the intention of giving students more chances to practice speaking both within and outside of the classroom. The lessons created and delivered through Voki were in line with the curriculum and aimed to help students' speaking abilities. The objective was to develop a dynamic and engaging learning environment that actively involved students in the language and subject matter covered in class. The intervention lasted for eight weeks, during which time the instructor guided and advised students to participate in the prescribed Voki activities twice a week for two hours at school. Additionally, it was encouraged for the students to prepare their homework based on Voki after school. The instructor kept a checklist to monitor the students' progress. In order to inspire and encourage the students' continuing engagement, the instructor provided encouraging feedback. An illustration of a Voki-delivered English lesson is as follows:

Before directing the students to the discussion topic in Voki page as part of warm-up exercises, the instructor directed them to the topic in Voki and uploaded her own voice. The students are then divided into pairs, groups of three or groups of four and invited to select and determine whatever part of the issue to debate. Searching for relevant materials in accordance with the theme, the pairs or groups compile a list of the key points, begin presenting the information they have chosen and publish it on their own website. The remaining couples or groups then express their thoughts in accordance with the presentations. This process is further continued after school hours with the guidance of the instructor depending on the requirement of the groups. Students are expected to prepare a summary of their material and record their voices after class. An example of some of the Voki avatars students used can be seen in Figure 1 below.

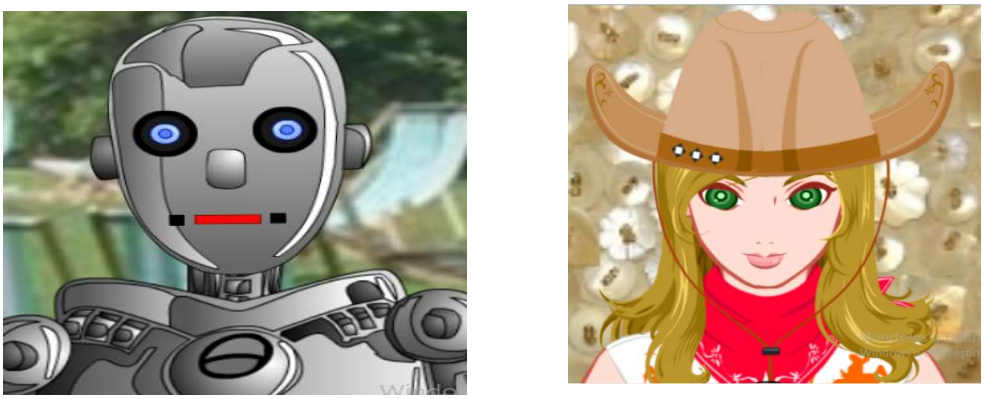

Figure 1. Some of the avatars students used

3.5. Data analysis

The data were analyzed using descriptive analysis techniques. As mentioned before, both groups were considered to be homogenic because they were assigned to their classes as mixed groups according to

their exam results the school required them to take at the beginning of the term. In order to check the distribution of data in terms of normality, the Shapiro-Wilk test was applied for the satisfaction scale. The speaking exam results of the participating students were evaluated and presented in Table 1. To assess the students' overall satisfaction levels, the arithmetic mean and standard deviation of the scale values were computed.

4. Results

4.1. Speaking exam results

The KET speaking exam results of the students after the intervention is provided below in Table 1.

Table 1. KET Speaking Results

KET Speaking Results					
Experimental	sd	Control	Effect size	sd	p
9.2	2.2	7.4	0.80	2.2	0

As seen in Table 1, students in the experimental group outperformed the control group in speaking with statistically significant results.

4.2. Satisfaction scale results

The results of the Shapiro-Wilk test for the satisfaction scale showed that data were homogenically distributed with pre-test (z= .967; p >.05); post- test (z=.943; p > .05). Arithmetic mean regarding students' overall satisfaction is found to be 3.70. In terms of sub-dimensions, the highest mean found is 'Transmission and usefulness' (x^- = 3.80) followed by 'Instruction process' (x^- =3,72), 'Instruction content' (x^- =3,66) and the lowest with 'Interaction and evaluation' (x^- =3,63). According to the results of the satisfaction scale, students are satisfied with the learning environment conducted via Voki. The results of the satisfaction scale are presented in Table 2 below.

Table 2. Satisfaction Scale Results

Sub-dimensions	**x^-**	**ss**
Transmission and usefulness	3.80	1.01
Instruction process	3.72	1.19
Instruction content	3.66	1.11
Interaction and evaluation	3.63	1.23

5. Discussion and conclusion

The findings of this study can be interpreted as the incorporation of Voki in English classes had a positive impact on students' speaking performance and satisfaction. The results of the study indicate that students who used Voki as part of their language learning activities benefited from the tool, indicating that it contributed to their speaking skills development as well as their satisfaction. Research that investigated mobile technologies in the context of speaking skill emphasize their possible contribution and being a valuable asset (Wu, Hsieh & Yang, 2017). These results align with previous research that emphasizes the potential benefits of integrating new technology in educational contexts specifically the

studies suggesting the effectiveness of Voki (Nguyen & Nguyen, 2021; Yeşilbağ & Korkmaz, 2021). Since the lessons did not differ in the subject matter but in the method so the difference can be attributed to the effect of Voki use both in and out of classroom environment. By the same token, as for Voki, a study conducted by Aktaş (2023) demonstrated that the use of Voki had a positive impact on students' motivation and enthusiasm in delivering speeches. These findings highlight the positive impact of Voki as a supportive tool to practice language learning specifically in speaking. Ramdani (2018) highlight that despite the challenges of adopting new technology, it can offer advantages such as enhanced learning mastery, collaboration, and critical thinking when integrated effectively. In this sense, Voki, can be considered as a valuable asset which can support students who may feel apprehensive about speaking within a classroom setting by allowing students to record and share voice messages, offering them a platform to practice speaking skills.

The findings from the satisfaction scale indicate a high level of students' satisfaction with their e-learning environment, which is also consistent with existing literature (Demir, 2021; Malkawi, Bavaneh & Bava'aneh, 2021). Interactivity has been widely acknowledged as a pivotal factor influencing student satisfaction in online learning environments. Numerous studies explored the potential connections between interaction and satisfaction, consistently demonstrating that heightened interactivity tends to correlate with elevated levels of student satisfaction (Muzammil, Sutawıjaya & Harsası, 2020; Dharmadjaja & Tiatri, 2021). The integration of interactive communication tools, as supported by previous studies (Hong, 2002; Şahin & Shelley, 2008), likely contributed to the increased satisfaction levels among students, potentially explaining the positive outcomes observed with Voki-based activities. Another factor that might have played a role in augmenting student satisfaction could be the students' access to interactive tasks with their peers outside of regular school hours. Therefore, the Voki-based activities, fostering interaction not only in class but also extending to after-school interactions with peers, could have bolstered their engagement and overall satisfaction. It is also plausible to argue that the design of the Voki-based activities facilitated students' engagement and subsequently heightened their satisfaction by affording them opportunities to actively interact with one another (Amoush & Mizher, 2023).Moreover, in the context of mobile technologies, the findings of this study are also aligned with research indicating the contributions of mobile technologies in language education. To be more specific, this is consistent with the study conducted by Laa, Saab & Admiral, 2023, which revealed that students perceived technology as a helpful tool for their learning. Similarly, another study suggested that the integration of mobile technologies in English classes can lead to increased student engagement (Yu, Xu, Xu & Wu, 2020). These consistent results highlight the positive effect of technology integration on language learning outcomes and learner engagement. Indeed, the effectiveness of mobile language learning has been supported by numerous researches in the field (Klimova & Prazak, 2019; Hao, Lee, Chen & Sim, 2019). This is also true for blended learning environments. As the pioneers of blended learning, according to Osguthorpe and Graham (2003), blended education offers several benefits, including increased access to information and being cost-effective. Based on these advantages, it can be concluded that integrating a Web 2.0 tool within a blended learning approach can enhance language learning experiences by providing opportunities for interactive and collaborative learning, as well as facilitating access to a great range of language materials. Previous research has indicated that students' interaction with their teacher in online English language courses is indicative of their satisfaction (Flicinska-Turkiewicz, Beczkowska & Skrobacki, 2022). This factor likely contributed to the heightened satisfaction observed in this study, as the teacher provided substantial support to the students throughout various stages of the implementation.

Finally, within the boundaries of this study, Voki, being a web 2.0 tool, can be considered as an engaging educational resource that students can benefit from while practicing speaking which also increases the satisfaction of the students. The progressive and rapid advancements in technology have led to an increasing acknowledgement of its role as a valuable asset for learning within the domain of language education (Jadhav, Gaikwad & Patil, 2022). To maximize the possible opportunities of mobile technologies, it is essential for research to give priority to exploring the capabilities of technology in the realm of language learning (Ziegler, 2016). It should be noted that meticulously designed curriculum aligned with the goals may help to improve the fluency, pronunciation and communication abilities of the students with engaging them in meaningful and interesting speaking exercises supported by technology which may eventually lead to more satisfaction as well.

On the whole, while this study indicates the potential of mobile devices to enhance speaking performance and satisfaction in language education, there is a need to further amplify the influence of mobile learning initiatives through longitudinal studies in diverse settings and age groups. Hence, it is important to bear in mind that this is a small-scale study and extensive generalizations or establishing lofty expectations solely based on its outcomes should be avoided.

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