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Research Article

Exploring High School Students' Acceptance and Use of Mobile Applications for English Language Learning

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ABSTRACT

This study explored the perceptions and attitudes of high school English learners towards mobile language learning applications in a southeastern province of Türkiye. It also examined how factors such as gender, age, school type, smartphone ownership, and regular internet access influence the use of these applications among high school EFL learners. The research involved 650 high school students aged 15 to 17 years old, across 9th, 10th, and 11th grades, and was conducted using a mixed-methods approach, predominantly quantitative. Questionnaires were distributed in four public high schools, and semi-structured interviews were conducted with 30 volunteering students. Findings indicated that high school EFL learners generally held positive perceptions and attitudes towards mobile language learning apps, using them for various purposes, including practicing and developing English language skills.

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Introduction

Over the past few decades, technology has evolved into a mobile and web-connected form, leading to the widespread adoption of mobile devices such as smartphones, tablets, podcasts, and VR glasses as tools for language learning (Dolzich et al., 2021). The use of mobile devices as a learning environment has the potential to foster collaborative learning (Kukulska-Hulme & Viberg, 2018). However, their effectiveness relies more on user engagement and interaction than merely on the devices' features (O'Malley et al., 2003). This emphasis on interaction highlights the dynamic nature of mobile learning, where the physical attributes of devices are less significant than how learners use them to connect and collaborate. This form of learning, known as mobile learning or m-learning, is characterized by its flexibility, occurring anytime and anywhere, not necessarily in a fixed setting (Shortt et al., 2023). The portability of these devices promotes learner-centered education, facilitating ubiquitous interaction beyond traditional classroom settings and adapting to learners' cognitive abilities and limitations (Kuru Gönen & Zeybek, 2022; Nariyati et al., 2020).

Building on this foundation of flexible and portable learning tools, mobile applications have increasingly become integral to language education. Serving as both extracurricular activities and aids in traditional EFL contexts, these apps cover a wide spectrum of language learning facets including vocabulary, grammar, listening, speaking, writing, and reading (Dolzich et al., 2021). They play a crucial role in enhancing critical thinking skills and adapting education to fit the demands of modern learners (Lee et al., 2016). Furthermore, recent studies highlight that language learning applications can be as effective as traditional face-to-face instruction across various proficiency levels of the Common European Framework of Reference (CEFR), and promote creative language use by incorporating social networking and crowdsourcing features (Ghorbani & Ebadi, 2020; Karasimo, 2022). This shift reflects a broader transformation in educational paradigms, where digital integration is key to developing new learning strategies and opportunities

The burgeoning interest in digital learning tools and their practical impact in educational settings highlights the significance of the present study, which aims to examine the perspectives and attitudes of high school students in Türkiye towards using mobile applications for language learning. Unlike previous research primarily focused on teachers' perceptions (e.g., Oz, 2015; Şad et al., 2022), this study targets high school students, exploring their preferences and the reasons behind them for using mobile apps in English language learning. This shift in focus provides a perspective that could enhance the understanding of mobile learning's role in Turkish educational contexts and similar EFL settings. By examining how factors such as gender, age, school type, smartphone ownership, and regular internet access influence mobile learning, the study aims to provide a comprehensive view of current trends and preferences among high school students at diverse school types, thus ensuring a broad representation of student experiences, enriching the study's findings. Ultimately, the findings are expected to provide valuable recommendations for educators and students on enhancing the integration and efficacy of mobile learning in language education. It also aims to raise awareness among learners and teachers about the diverse opportunities presented by mobile

learning in various educational contexts, thereby improving both engagement and academic achievement in EFL settings.

Literature Review

Mobile Assisted Language Learning (MALL) utilizes handheld devices, such as smartphones and tablets, to facilitate language learning. Kukulska-Hulme (2012) emphasizes that a sufficient number and variety of these devices are crucial for effective mobile learning. This diversity ensures that educational experiences can meet various technological capabilities and learning preferences, thereby enhancing accessibility and engagement. By providing a range of devices, educators can cater to different learning styles and needs, enhancing the overall success and inclusivity of mobile learning programs. Research in MALL encompasses content-based approaches, which assess mechanisms and exercises for students, as well as design-based approaches focused on developing materials specifically for mobile platforms (Rahmanu & Santosa, 2022).

Building on this foundational understanding, MALL employs devices like smartphones, tablets, and laptops, which capitalize on their portability and mobility to enable learning at any time and place (Dolzich et al., 2021). The array of common devices extends to PDAs, mobile phones, and pocket electronic dictionaries, all of which support language learning and collaborative resources, thereby enhancing the ways students learn a target language. By transcending physical space limitations, mobile learning provides the freedom to learn anywhere. This approach also fosters enhanced student interaction through tools such as SMS, mobile internet, and voice communication, offering unrestricted access to information and resources (Rysbayeva et al., 2022).

The inherent mobility of MALL not only facilitates frequent interaction among students, content, and teachers but also expands language exposure beyond conventional classroom methods (Ekinci & Ekinci, 2017). Furthering this dynamic, MALL extends language practice from the classroom to 'out in the world,' thus encouraging authentic and real-world learning experiences (Kukulska-Hulme, 2012). Such a strategy not only enhances speaking skills but also shows positive effects on various aspects of speaking abilities (Setiyanti et al., 2022). Serving as a powerful motivational tool, MALL shifts student perspectives and fosters active participation in learning activities, engaging students in real-world learning and thus breaking the traditional confines of classroom instruction (Murugan & Teoh, 2022).

MALL provides key features such as individualized learning, extended practice beyond classrooms, and collaborative learning experiences, which have been shown to positively impact language learning, enabling learning anytime and anywhere (Shortt et al., 2023). MALL fosters autonomy, collaboration, and motivation among students, although challenges remain in teacher implementation due to some educators' discomfort with integrating mobile technology or their training (Baek et al., 2017; Gutiérrez-Colón et al., 2023). Additionally, MALL supports collaborative learning, enhances peer relationships, and facilitates valuable teacher feedback within the cognitive apprenticeship framework (Kukulska-Hulme & Viberg, 2018; Sandberg et al., 2011). MALL is also regarded as an ideal tool for fostering active

learning, teamwork, and innovation, and particularly for overcoming the limitations of traditional classroom instructions (Li, 2021). Furthermore, MALL supports English Language Learners (ELLs) in autonomously acquiring English proficiency, enhancing pronunciation skills, and reducing teacher anxiety through essential feedback (Abduh, 2019). The integration of smartphones in classroom settings has also proven effective, with studies showing MALL's ability to transmit lesson information and boost student motivation through innovative uses of technology (Shortt et al, 2023).

While MALL offers numerous educational benefits, it faces significant challenges, such as unreliable internet connectivity, which poses a substantial obstacle in English language classrooms, and perceived limitations due to various constraints that can reduce MALL's appeal (Kukulska-Hulme & Viberg, 2018). Learners have concerns about potential damage or loss of devices when used outdoors, contributing to hesitancy in adopting MALL (Welsh et al., 2015). Technical issues such as screen readability, high costs of data services, and teachers' discomfort with integrating mobile technology in classrooms further impede its seamless integration (Baek et al., 2017). Moreover, technical glitches during sessions and inadequate device utilization by learners exacerbate the difficulties (Dolzich et al., 2021; Ganapathy et al., 2016). Despite its advantages, persistent challenges such as limited battery life, small screen sizes, and concerns over teacher discomfort and classroom distractions continue to pose problems (Baek et al., 2017).

Research into mobile-assisted language learning (MALL) has consistently demonstrated its effectiveness and positive reception across diverse educational contexts globally. Studies have shown how learners utilize and perceive mobile apps for language learning. For instance, Luef et al. (2018) found that Korean university students used digital apps informally for language learning more extensively than they initially realized. Similarly, Nami (2020) surveyed 381 university students in Iran, discovering that dictionary and vocabulary apps were particularly popular, with students expressing positive views on their effectiveness for language development. Further supporting the broad acceptance of MALL, Ma (2017) investigated attitudes in mainland China and Hong Kong, revealing strong support for mobile learning both inside and outside the classroom, despite some gaps in students' perceived and actual self-regulation abilities, especially in speaking skills. In Europe, Mospan (2018) reported extensive use of mobile applications like Duolingo in Poland and Ukraine, often utilized during commutes and at home. Additionally, Seraj et al. (2020) in Bangladesh and Vo (2023) in Vietnam reported high readiness and favorable attitudes among university students toward mobile learning, highlighting the usability and availability of smartphones as key factors in their adoption. Expanding the geographical scope of these studies, Alharbi (2024) conducted research focusing on the Middle East. In this recent study, Alharbi investigated the factors influencing Saudi English Major students' potential adoption of MALL tools in their academic pursuits. The findings reveal that while the perceived ease of use is important, it is the students' perceptions of the usefulness of MALL tools that play a more significant role in predicting their willingness to utilize these resources. Overall, these studies from around the world underscore the broad acceptance and effectiveness of MALL. They reveal that while ease of use is important, the perceived usefulness of these tools and the need for effective

learning strategies are critical in driving student engagement and willingness to adopt MALL for language development across various educational settings.

In the context of Türkiye, a series of studies have underscored the efficacy of MALL in enhancing language education across various educational levels. Research such as Çavuş (2011) demonstrated that integrating mobile devices with learning management systems in higher education significantly increases student engagement and facilitates peer communication. Similarly, Ekinci and Ekinci (2017) found positive responses among university students using mobile applications like Memrise and Duolingo for vocabulary enhancement. Further investigations have revealed a broad appreciation for the convenience and personalized learning opportunities MALL offers. Oz (2015) highlighted pre-service English teachers' positive perceptions, though noted a need for more comprehensive training to fully leverage these technologies. Ozdamli and Uzunboylu (2015) reported on MALL's potential to improve motivation in secondary schools, despite challenges like limited resources and inadequate infrastructure. Özer and Kılıç (2018) observed that students using MALL tools not only showed improved academic performance but also an increased acceptance of mobile technologies, suggesting a dual benefit in performance and motivation. The recent study by Türker (2022) also highlighted the impact of MALL on vulnerable populations like Syrian refugees, showing significant improvements in language skills and high acceptance of mobile tools during the COVID-19 pandemic. Dağdeler and Demiröz (2022) and Şad et al. (2022) further reflected on the need to adapt higher education approaches and pre-service teacher training to better support MALL, emphasizing the importance of addressing challenges like internet connectivity and classroom management. Overall, these findings illustrated the transformative potential of MALL in Turkish contexts, enhancing both the accessibility of language learning and the effectiveness of educational practices, provided there is sufficient support and resources.

Theoretical Framework

The Unified Theory of Acceptance and Use of Technology (UTAUT), proposed by Venkatesh et al. (2003), consolidates elements from various acceptance models, offering a comprehensive framework proven more effective in explaining behavioral intention than individual models. UTAUT has been used to assess acceptance in diverse domains, including web, mobile learning, and social media within higher education and developing countries, though its use in literature remains limited.

UTAUT includes six key components influencing user acceptance and usage behavior: Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Behavioral Intention, and Attitude. Performance Expectancy is believed to enhance job performance and is a strong predictor of technology acceptance, particularly in educational settings (Bernacki et al., 2020; Venkatesh et al., 2003). Effort Expectancy involves the perceived ease of using technology, significant both initially and throughout its use (Venkatesh et al., 2003). Social Influence reflects the perceived approval from others and varies with context and technological familiarity (Hsu & Lin, 2008). Facilitating Conditions, which refer

to organizational and technical support, are shown to affect technology adoption positively (Rahmanu & Santosa, 2022). Behavioral Intention relates to the motivation to use specific technologies and is positively correlated with actual usage (Zhang & Yu, 2022). Lastly, Attitude Towards Behavior represents an individual's general feelings towards using technology, influencing various UTAUT components though not included in the final model (Venkatesh et al., 2003).

Informed by the UTAUT, this research focuses on high school students' perspectives and attitudes toward using mobile applications for language learning in Türkiye. While previous research has predominantly centered on the perceptions of teachers (e.g., Oz, 2015), pre-service teachers (e.g., Dağdeler & Demiröz, 2022), and university students (e.g., Ekinci & Ekinci, 2017), this study distinctively captures high school students' preferences through questionnaires and interviews. The findings aim to provide fresh insights into English as a Foreign Language (EFL) contexts. It examines usage across four different high school types: Anatolian HS, Science HS, Religious Vocational Anatolian HS, and Vocational and Technical HS, offering a comprehensive view of mobile app utilization in diverse educational settings. The study aims to enhance the effectiveness of mobile-assisted language learning and broaden awareness of its benefits, contributing valuable suggestions for integrating mobile technology in language education.

The study addresses the following research questions:

- **1.** What are the perceptions and attitudes of Turkish high school English as a Foreign Language (EFL) learners towards mobile phone applications?
- 2. Do factors such as gender, age, type of school, smartphone ownership, and regular internet access have an impact on the utilization of mobile applications for language learning among Turkish high school EFL learners?
- **3.** Which specific mobile applications do Turkish high school students utilize for language learning purposes?

Methodology

The current research employs a mixed-methods research design with a quantitative-dominant approach to investigate students' perceptions and attitudes towards the use of mobile applications in language learning. The study utilizes both a questionnaire and face-to-face interviews to collect data. The questionnaire serves as a quantitative method, while the semi-structured face-to-face interviews provide qualitative insights.

Participants

Conducted during the 2022-2023 academic year in Diyarbakir, the research involved 650 students from four different types of public high schools: Anatolian High School, Science High School, Vocational and Technical Anatolian High School, and Religious Vocational Anatolian High School (Table 1). These schools were selected using purposive sampling to ensure a representative cross-section of school types in the region, thus providing a

comprehensive overview of mobile learning across diverse educational settings. Participants were drawn from 9th, 10th, and 11th grades through convenience sampling. The inclusion of diverse schools aims to enhance understanding and practices in using mobile applications effectively for language education. The sample comprised 56.5% female and 43.5% male participants, aged between 15 and 17 years. The study ensured anonymity and voluntary participation, with students able to withdraw at any time. No personal identifiers were collected; instead, responses were labeled with numerical identifiers like 'Interviewee 1' for data analysis and reporting.

Table 1. Demographic Features of Participants

		F	%
Condor	Female	367	56.5
Gender	Male	283	43.5
	15	253	38.9
Age	16	193	29.7
	17	204	31.4
	9	253	38.9
Grade of students	10	193	29.7
	11	204	31.4
	Anatolian HS	150	23.1
	Science HS	152	23.4
School type	Vocational and Technical Anatolian HS	188	28.9
	Religious Vocational Anatolian HS	160	24.6

*HS: High School

Data Collection

Participants completed questionnaires and participated in semi-structured interviews for the purpose of the exploration of their perceptions and attitudes toward mobile learning in English as a Foreign Language (EFL) contexts. The questionnaire was divided into two sections. The first section collected demographic information such as gender, age, grade, type of school, smartphone ownership, regular internet access, mobile device usage, duration of internet access, and preferences for mobile applications, all crucial for understanding participant profiles. The second section, based on a 6-point Likert scale adapted from Hoi's (2020) research, consisted of 31 items across six segments: performance expectancy, effort expectancy, social influence, facilitating conditions, behavioral intention, and attitude. These

segments aimed to assess different aspects of mobile device usage for language learning, with items designed to gauge participants' motivation, skill improvement potential, environmental support, and overall attitudes towards mobile learning. Specifically, items 1 to 5 measured performance expectancy by evaluating motivation and interest in using mobile devices both inside and outside the classroom. Items 6 to 12 focused on effort expectancy by examining how mobile devices could enhance language skills in listening, speaking, reading, and writing. Items 17 to 22 explored the facilitating conditions for using mobile devices in language learning, while items 23 to 26 assessed behavioral intentions, and items 27 to 31 captured participants' attitudes towards mobile learning during class. Regarding the reliability of the survey, the original questionnaire had a Cronbach's alpha value of .90, indicating high internal consistency. The adapted survey maintained this high reliability, with a Cronbach's alpha value of .92. The questionnaire was administered in Turkish to ensure clear communication and candid responses.

The study's secondary data was collected using face-to-face semi-structured interviews, serving as a qualitative complement to the primary data collection method. As outlined by Kvale (1996), interviews are in-depth discussions reliant on human interaction and heavily influenced by the social context, making them ideal for exploring complex topics. Specifically, this research utilized semi-structured interviews to probe how the Internet is used for personal and professional development, allowing for flexible exploration and the ability to ask spontaneous follow-up questions to clarify responses and gain deeper insights (Patton, 2002; Kajornboon, 2005). Thirty students volunteered for these interviews, with a notably higher participation rate among 9th and 10th graders compared to 11th graders. The interviews, conducted in Turkish to ensure clarity and comprehension, focused on students' attitudes, perceptions, and intentions regarding the use of mobile applications for learning English. The interviews involved questions, which were designed to gather the students' perceptions, attitudes, and ideas regarding the use of mobile applications for language learning. While some questions aimed to collect general information about the respondents, the interviews explored the participants' intentions, particularly concerning the use of mobile applications for learning English. Each interview lasted 10 to 15 minutes, was recorded using a smartphone, and later transcribed. Handwritten notes were also taken to capture additional nuances. The data collection combined these interviews with a comprehensive questionnaire, significantly enriching the research data.

Data Analysis

Data from the questionnaire were analyzed using the Statistical Package for the Social Sciences (SPSS) software (Version 21). This analysis included calculating means, standard deviations, percentages, and frequency rates to describe the participants' demographic characteristics, smartphone ownership, regular internet access, and preferences for mobile application usage. Two primary statistical tests were employed: the independent samples t-test and the one-way ANOVA test. The t-test analyzed the relationship between the questionnaire items and variables such as smartphone ownership, regular internet access, and gender, helping to determine if significant relationships exist between them. Conversely, the one-way ANOVA

test was used to identify significant differences in the questionnaire responses related to variables such as school types, age, grades of participants, and preferences for using mobile apps for language learning. The test compared means across different groups to determine the presence of significant differences. These statistical methods are instrumental in analyzing the data and drawing conclusions about the relationships and differences among the variables studied.

Regarding the qualitative data, thematic analysis procedures were conducted on the interviews, which were initially conducted in Turkish and subsequently translated into English by the researcher. To ensure accuracy, the transcriptions were reviewed by another experienced English teacher. The analysis of the semi-structured interviews was conducted following the six-step process outlined by Creswell (2012). This method involves an initial thorough reading of all transcriptions, during which notes are taken in the margins to capture emerging ideas. Next, the text is segmented into smaller pieces of information, each of which is coded by identifying, bracketing, and assigning an appropriate code word or phrase. Following this, a list of code words is created, and similar codes are grouped together while redundancies are eliminated to streamline the list. This preliminary coding scheme is then applied to the data to test for new codes. Finally, the three most frequently discussed, unique, and well-supported codes are identified to determine the main themes in the data. This method facilitated a logical and clear presentation of the qualitative findings. It is important to note that the first author was the sole coder of the data; therefore, no interrater reliability could be established. This limitation is acknowledged as it impacts the verification of coding consistency across different observers.

Results

The primary focus of this study was to explore the perceptions and engagement of high school students with language-learning mobile applications. It aimed to examine their perspectives, attitudes, preferences, and motivations. The first research question investigated how various factors such as gender, age, school type, smartphone ownership, and consistent internet access influence the utilization of language-learning mobile apps among Turkish high school students studying English as a Foreign Language (EFL).

The data showed the characteristics of the participants regarding smartphone ownership, regular internet access, and the use of mobile applications for language learning. Out of the total participants, 61.2% (N=398) reported owning a smartphone, while 38.8% (N=252) did not. Regular access to the internet was reported by 70.0% (N=455) of the participants, compared to 30.0% (N=195) who lacked consistent access. Regarding the use of mobile applications for language learning, 30.5% (N=198) of the participants engaged with these tools, whereas a majority of 69.5% (N=452) did not use mobile apps for this purpose.

The UTAUT scores of participants by gender were analyzed using an independent sample t-t-test (Table 2). The analysis revealed no significant differences in scores for Effort Expectancy (t=1.01, p>.05), Social Influence (t=1.74, p>.05), and Facilitating Conditions (t=0.08, p>.05). However, significant differences were observed in Performance Expectancy (t=2.37, p<.05), Behavioral Intention (t=2.63, p<.05), Attitude (t=3.85, p<.05), and the overall

UTAUT scale scores (t=2.32, p<.05). Further examination of the mean scores indicates that women generally exhibit higher UTAUT scores compared to men. Specifically, women scored higher in Performance Expectancy, Behavioral Intention, Attitude, and overall UTAUT scores. This suggests that women, on average, show a greater inclination towards technology utilization, particularly in terms of performance expectations, behavioral intentions, attitudes, and overall technology adoption.

Table 2. Comparison of Students' UTAUT Scores according to Gender Variable

	Gender	n	M	SD	t	df	Sig.
Performance expectancy	Female	367	21.79	5.24	2.37	648	0.01
renormance expectancy	Male	283	20.72	6.18	2.31		0.01
Effort avnostancy	Female	367	29.55	6.28	1.01	648	0.31
Effort expectancy	Male	283	29.01	7.42	1.01	040	0.31
Carial influence	Female	367	14.79	4.35	1.74	648	0.08
Social influence	Male	283	14.16	4.86	1.74		
Facilitating conditions	Female	367	24.88	7.36	0.08	648	0.93
Facilitating conditions	Male	283	24.93	7.40			
Behavioral intention	Female	367	16.13	4.94	2.63	648	0.00
Benavioral intention	Male	283	15.06	5.34	2.03	040	0.00
A 44:4 J -	Female	366	22.22	5.66		647	0.00
Attitude	Male	283	20.35	6.64	3.85		0.00
Light Light	Female	366	129.36	26.49	2.22	647	0.02
UTAUT	Male	283	124.26	29.25	2.32	647	0.02

The ANOVA test analysis of the UTAUT scores across different age groups showed no significant differences in Effort Expectancy, Behavioral Intention, and Attitude scores (p>.05) (Table 3). However, significant differences were observed in Performance Expectancy, Social Influence, Facilitating Conditions, and overall UTAUT scores (p≤.05). Subsequent intra-group comparisons using the Tukey test revealed that 16-year-old students scored higher in Performance Expectancy, Facilitating Conditions, and overall UTAUT scores compared to their peers aged 15 and 17. This indicates that, on average, 16-year-olds are more optimistic about performance expectations, perceive more enabling conditions, and achieve higher overall UTAUT scores than students between the ages of 15 and 17.

Table 3. Comparison of Students' UTAUT Scores According to Age Variable

	Age	n	M	SD	df	F	Sig.
Performance expectancy	15	253	21.41	5.75			
	16	193	22.04	5.61	2	3.42	0.03
	17	204	20.55	5.61	2	3.42	0.03
	Total	650	21.33	5.69			
	15	253	28.99	6.54			
Effort	16	193	30.09	7.02	2	1.79	0.16
expectancy	17	204	28.99	6.88	2	1.79	0.10
	Total	650	29.32	6.80			
	15	253	14.54	4.51			
Social influence	16	193	15.07	4.63	2	2.96	0.05
Social influence	17	204	13.96	4.59	2	2.90	0.05
	Total	650	14.52	4.58			
	15	253	24.18	7.07			
Facilitating	16	193	25.91	7.26	2	3.03	0.04
conditions	17	204	24.85	7.76	2	3.03	U.U 4
	Total	650	24.90	7.37			
	15	253	15.55	5.02			
Behavioral	16	193	16.19	5.29	2	1.60	0.20
intention	17	204	15.29	5.12	2	1.00	0.20
	Total	650	15.66	5.14			
	15	252	21.03	6.27			
Attitudo	16	193	22.15	6.07	2	2.00	0.13
Attitude	17	204	21.17	6.12	2	2.00	0.13
	Total	649	21.40	6.17			
UTAUT	15	252	125.67	26.97			
	16	193	131.47	28.09	2	2.41	0.03
	17	204	124.84	28.27	2	3.41	0.03
	Total	650	127.14	27.82			

The ANOVA test analysis of UTAUT scores across different school types (Table 4) indicated no significant differences in Social Influence, Behavioral Intention, and Attitude scores. However, significant variations were observed in Performance Expectancy, Effort

Expectancy, Facilitating Conditions, and overall UTAUT scores. Intra-group comparisons using the Tukey test revealed notable differences. Students from Science High Schools showed higher Performance Expectancy (M=22.09) compared to those at Vocational High Schools (M=20.47). Anatolian High School students had higher Effort Expectancy scores (M=30.68) than their peers at Religious Vocational High Schools (M=28.12). Additionally, students from Anatolian and Science High Schools scored better in Facilitating Conditions, with Anatolian High School students achieving an average of 26.05 and Science High School students 22.40. These findings suggest that students from Anatolian and Science High Schools perceive more supportive conditions and generally attain higher overall UTAUT scores than students from other types of schools in this study.

Table 4. Comparison of Students' UTAUT Scores According to School Type Variable

	School type	n	M	SD	df	F	Sig.
Performance expectancy	Anatolian HS	150	21.79	5.99			
	Science HS	152	22.09	4.65			
	Vocational HS	188	20.47	5.71	3	2.71	0.0 4
1	Religious Voc. HS	160	21.18	6.16			-
	Total	650	21.33	5.69			
	Anatolian HS	150	30.68	6.70			
	Science HS	152	29.65	5.92			
Effort expectancy	Vocational HS	188	28.98	6.91	3	3.96	0.0
	Religious Voc.HS	160	28.12	7.35			v
	Total	650	29.32	6.80			
	Anatolian HS	150	14.96	4.85			
	Science HS	152	14.67	4.11			
Social influence	Vocational HS	188	14.59	4.73	3	1.65	0.1 7
	Religious Voc. HS	160	13.86	4.55			,
	Total	650	14.52	4.58			
Facilitating conditions	Anatolian HS	150	26.05	7.00			0.0
	Science HS	152	28.05	6.15	3	20.23	0

	Vocational HS	188	23.57	7.44			
	Religious Voc. HS	160	22.40	7.47			
	Total	650	24.90	7.37			
	Anatolian HS	150	16.14	5.30			
	Science HS	152	15.82	4.61			
Behavioral intention	Vocational HS	188	15.34	5.37	3	0.80	0.4 9
	Religious Voc.HS	160	15.45	5.19			
	Total	650	15.66	5.14			
	Anatolian HS	149	22.27	6.17			
	Science HS	152	20.94	5.49			
Attitude	Vocational HS	188	21.40	6.30	3	1.44	0.2
	Religious Voc. HS	160	21.04	6.59			
	Total	650	21.40	6.17			
	Anatolian HS	149	131.86	28.34			
UTAUT	Science HS	152	131.24	23.47			
	Vocational HS	188	124.39	28.05	3	5.00	0.0
	Religious Voc. HS	160	122.06	29.77			
	Total	650	127.14	27.82			

The UTAUT scores according to the variable of having a smartphone of the students were analyzed with the independent sample t-test (Table 5). The analysis revealed no significant difference in Performance Expectancy, Social Influence, Behavioral Intention, and Attitude scores (p>.05). However, a significant difference was found concerning Effort Expectancy, Facilitating Conditions, and the overall UTAUT scores ($p \le .05$). It became evident that participants who owned a smartphone displayed higher UTAUT scores (M=129.52) compared to those who did not own a smartphone (M=123.36). This suggests that individuals owning a smartphone exhibit higher levels of perceived ease of use, favorable facilitating conditions, and overall UTAUT scores in embracing and using technology compared to those without smartphone ownership.

Table 5. Comparison of Students' UTAUT Scores According to Ownership of Smartphone Variable

	Ownership of smartphone	n	М	SD	t	df	Sig.
Performance expectancy	Yes	398	21.63	5.53	1.72	648	0.08
	No	252	20.84	5.91	1.73		
Effect assessment	Yes	398	29.82	6.57	2.29	648	0.01
Effort expectancy	No	252	28.52	7.09	2.38	048	0.01
Contain Conserva	Yes	398	14.72	4.45	1.42	648	0.15
Social influence	No	252	14.19	4.78	1.42		0.15
	Yes	398	26.35	6.81	6.46	648	0.00
Facilitating conditions	No	252	22.62	7.66			
Behavioral intention	Yes	398	15.71	5.07	0.31	640	0.75
Benavioral intention	No	252	15.58	5.25	0.31	648	0.75
A (()) - 1.	Yes	398	21.26	6.29	0.75	647	0.44
Attitude	No	251	21.64	5.99	-0.75	647	0.44
UTAUT	Yes	398	129.52	27.07	2.55	647	0.00
	No	251	123.36	28.61	2.75	647	0.00

High school students' preferences were investigated through a questionnaire and face-to-face semi-structured interviews (see below for the interview findings). Out of the 201 participants utilizing mobile applications, the distribution of applications used includes *Duolingo, Translate, Busuu, Cake, Cambly, Google Translate, Hello Talk, Jasmin Academy, Open English, Reverso Context*, and *Voscreen* (Figure 2). Among these, the most frequently used applications are *Duolingo*, which constitutes 71.6% of the users, followed by *Cambly* at 9%, and *Cake* at 5%. These three applications represent the most prevalent choices among the participants for language learning through mobile apps.

The data also showed a notable pattern where a considerable proportion of students in Vocational High School expressed reluctance towards using mobile apps for language learning. In contrast, students from Science High School were the minority in their negative responses to incorporating mobile apps into their language learning endeavors. This highlighted a clear difference in inclination between the two groups: Vocational High School students showed higher resistance to using mobile apps for language learning, while Science High School students appeared more receptive to leveraging these tools for language acquisition.

Interview Results on the Utilization of Mobile Applications by High School Students

A total of 30 students participated in semi-structured interviews, conducted with the necessary permissions at five schools in Diyarbakir: Anatolian High School (AHS), Vocational and Technical Anatolian High School (VTHS), Science High School (SHS), and Religious Vocational Anatolian High School (RVHS). These interviews, which included 9 open-ended questions, generated qualitative data that was analyzed using a thematic analysis approach. The findings were organized into two main categories: Utilization of Mobile Applications and Advantages and Challenges of Using Mobile Apps for Language Learning.

Utilization of Mobile Applications

The preferred mobile apps for language learning among students were Duolingo, Cake, Cambly, Busuu, Wordbit, Grammarly, Google Translate, British Council, Voice of America, BBC English, and English with Nab. Students particularly favored Duolingo and Busuu, citing Duolingo's suitability for beginners and Busuu's fit for their learning levels, especially in enhancing listening, speaking, and vocabulary skills. One student noted:

"I use Duolingo and Busuu. Duolingo is a good application for beginner level. Busuu is my favorite app because it is adequate and suitable for my level, but I think Duolingo is simpler than Busuu." (Interviewee 5, AHS, 10th grade)

Duolingo, Cake, and Cambly emerged as the most preferred apps, especially valued by students for boosting listening and speaking skills due to their perceived deficiencies in these areas by stating, "I benefit from Duolingo, Cake and Cambly to enhance listening skill and pronunciation, stress and intonation because I am worried about reading aloud a text in the class, so I try to improve pronunciation." (Interviewee 16, RVHS, 10th grade), "I use Duolingo and Cambly to improve speaking, listening skills, pronunciation and grammatical knowledge such as constructing a regular sentence." (Interviewee 6, AHS, 9th grade). Wordbit and Cake mobile apps were also preferred, as students aimed to enhance their vocabulary knowledge for reading texts or stories. One student, for example, noted how apps aided with vocabulary, aligning with personal interests like sports and movies:

"I use Wordbit, Duolingo and Cake for improving English skills. I use Wordbit because I need to improve vocabulary knowledge to read a story. In addition, I use BBC English and Voice of America to listen podcasts about my favorite themes such as sports, movies, shopping, so forth and I make activities about my listening text in BBC English which is very useful for me." (Interviewee 14, RVHS, 10th grade)

Participants utilized websites like the *British Council*, *Voice of America*, *BBC English*, and *English with Nab* to reinforce the topics they learned in class. For instance, one student mentioned: "I use BBC English and Voice of America to develop my listening and speaking skills because I am not good at speaking, so I listen to English podcasts regularly after school." (Interviewee 13, RVHS, 10th grade). Online dictionaries were favored over traditional ones for their convenience and immediate access: "I use online dictionaries such as Tureng and Google Translate because they are practical, and I do not have to bring a dictionary with me. I can

check the word whenever I need to." (Interviewee 26, VTHS, 11th grade). Students also reported using YouTube and social media to enhance their English language skills, focusing on pronunciation and listening:

"I used social media and Youtube channels such as Tonguç Academy, English with Nab to prepare for my English lesson. I watch educational videos about my topics and listen to podcasts in English with Nab channel to learn how to pronounce words and sentences correctly in daily language." (Interviewee 27, SHS, 9th grade)

Students further highlighted their use of mobile apps like *Duolingo*, *Cake*, and *Cambly*, along with the educational website *Tonguç Academy*, to enhance their vocabulary, grammar, listening, and speaking skills. Additionally, social media platforms such as *Instagram*, *Twitter*, and *TikTok* were particularly favored for language learning. These platforms allowed students to watch short videos, reels, and stories, and engage with posts in English, providing a fun and interactive way to learn the language. To illustrate, one student stated: "I benefit from Twitter, *Instagram*, *TikTok* and mobile apps in order to improve my English level and skills because I want to go abroad and will need to speak English fluently, so I utilize these mobile apps and social media." (Interviewee 29, SHS, 11th grade). Another student added: "I use Duolingo, Cake mobile apps and YouTube channels, which includes many instructional videos about English, Maths, Science, etc. I like watching Tonguç videos to make preparations for school subjects, especially for English." (Interviewee 22, VTHS, 9th grade)

In conclusion, high school students leveraged mobile apps and online resources to enhance their English skills effectively. Popular platforms like Duolingo, and social media networks provide accessible and engaging educational experiences, by supporting students in improving areas like pronunciation and vocabulary while fitting seamlessly into their daily lives, making language learning enjoyable and contextually relevant.

Advantages and Challenges of Using Mobile Apps for Language Learning

The second theme from the data highlighted the advantages and challenges of using mobile applications for language learning. Students appreciated the convenience of digital resources like online dictionaries and *YouTube* for lesson review, which eliminated the need to carry heavy books. However, they also noted several drawbacks, such as unreliable internet connections, smartphone dependency, and issues with battery life that could hinder app usage. Furthermore, some apps were not well-suited to their proficiency levels. One student explained: "I don't have to carry heavy books... I can watch educational videos to review my lessons. There are a few drawbacks such as internet connection problems, phone's battery, or I have no smartphone. Some apps aren't suitable for my level." (Interviewee 7, AHS, 9th grade). Students also found the prevalence of English in technology beneficial, particularly through immersive experiences created by mobile apps. They mentioned using PCs for watching subtitled movies and engaging with social media to enhance their English, with Google Translate being a favored tool for understanding unfamiliar words. Yet, limitations such as inadequate battery life often restrict access to these apps. Another student summarized: "Mobile applications create an authentic atmosphere, and we see English more and language

learning becomes enjoyable. As a disadvantage, my smartphone doesn't always have a battery so I cannot access mobile apps by using my smartphone." (Interviewee 7, AHS, 10th grade)

Students praised the practicality of mobile apps for learning, citing benefits like accessibility to various exercises and podcasts. However, they noted drawbacks such as internet issues, potential addiction, app suitability, and phone breakdowns, highlighting concerns about these limitations in language learning. They specified: "Mobile apps help us to improve listening, speaking skills and doing translation so they are very practical to utilize after school. However, they have some disadvantages such as internet connection problems, being addicted to surfing on the internet, advertisements, etc." (Interviewee 24, VTHS, 11th grade). Some learners praised mobile apps for offering diverse topics and convenient, portable study options. They highlighted the flexibility of using apps anywhere but stated technical issues like battery issues, internet problems, and the potential for internet addiction as drawbacks. One learner expressed:

"Mobile apps offer you many topics that I can choose whatever I am interested in because there are a lot of podcasts, activities, exercises to improve my skills. Besides, I can decide whenever I study English because mobile apps are practical and portable. I can utilize them wherever I go such as on holiday, on the bus, at the cafe, and so forth. Thus, I like using mobile applications. However, technical problems sometimes can happen such as running out of mobile devices' battery, internet connection problems. Mobile apps can cause internet addiction because you generally must use the internet as well." (Interviewee 20, RVHS, 9th grade)

Learners also valued mobile apps for enhancing digital literacy, reading, writing, and practicing listening and speaking skills. They appreciated the diverse choices but cited drawbacks like the absence of real-time correction, technical issues, and the importance of choosing suitable app levels for effective learning. One learner highlighted:

"I can develop my digital literacies, I can do practices to improve my [language] skills. But there are a few disadvantages of mobile apps. There is mostly no real person who can correct your pronunciation and make a dialogue. Technical problems may happen as well such as running out of mobile devices' battery, internet connection problems. Mobile app's level may not be compatible with your level, too, so you should be careful about choosing a mobile app to study English." (Interviewee 30, RVHS,11th grade)

Overall, students observed that mobile applications can enhance listening, speaking, and vocabulary skills through diverse activities and exercises. These apps offered valuable resources for accessing podcasts and recordings, allowing practice beyond regular class hours. However, drawbacks existed as well. Issues like battery drainage, connectivity problems, advertisements, and app suitability for various proficiency levels were noted. While they preferred using mobile apps, they found advertisements and internet connectivity frustrating.

Discussion

The present study investigated high school students' perceptions and attitudes toward learning English through mobile applications, involving 650 students from state schools in Diyarbakir. Participants completed a questionnaire, and 30 volunteered for semi-structured face-to-face interviews, creating a robust data set that allowed for both quantitative and qualitative analyses. Analysis of the UTAUT scale scores indicated a strong positive attitude among participants towards using mobile apps, with notably high mean scores for performance

expectancy, effort expectancy, attitude, facilitating conditions, behavioral intention, and social influence. This enthusiasm for MALL is consistent with previous research conducted in the Turkish context (Ekinci & Ekinci, 2017; Ozdamlı & Uzunboylu, 2015; Yıldız, 2020), which has documented learners' favorable views on mobile learning's potential to enhance motivation, engagement, and accessibility. Further qualitative insights from the interviews revealed that students frequently used applications like Duolingo and Cambly for language practice, alongside Google Translate and Tureng for translation and dictionary needs. Their mobile usage extended beyond structured learning, incorporating entertainment activities such as watching movies, using social media, and listening to music, which indirectly supported their language learning, particularly in listening, speaking, reading, pronunciation, and vocabulary. However, it was noted that fewer students utilized mobile applications for improving writing skills, preferring traditional methods for this aspect of language learning. This pattern of mobile app usage, similar to findings from Rosell-Aguilar (2018), demonstrates that learners utilize mobile applications not only within educational settings but also informally, greatly benefiting vocabulary acquisition and pronunciation enhancement. This behavior reflects a broader trend of leveraging technology to support language learning across various contexts and locations, confirming the integral role of mobile applications in modern language education strategies.

The findings from the study also indicated that students find mobile apps particularly useful for enhancing listening, speaking, and vocabulary skills, frequently utilizing activities and podcasts. Students appreciated the easy access to mobile devices and the internet but faced challenges like battery drainage, connectivity issues, intrusive ads, and apps not matching their proficiency levels. Technical obstacles such as login difficulties also occasionally hindered their experience. Despite these issues, the overall sentiment was positive, with students valuing the convenience, flexibility, and accessibility of mobile learning tools. This preference is consistent with trends observed across various educational settings in Turkey, where MALL is popular not just in formal education but also in informal learning environments (Çavuş, 2011; Yıldız, 2020). Furthermore, challenges similar to those reported in this study have been noted in other research contexts. For instance, in secondary school settings, both students and teachers have pointed out that limited resources and infrastructure can impede effective mobile learning (Ozdamli & Uzunboylu, 2015). In higher education, technical issues with apps, such as software lagging and micropayments for additional content, have been identified as significant barriers (Ekinci & Ekinci, 2017).

Regarding the specific aspects of the UTAUT scale such as performance expectancy, the findings suggested a strong inclination among participants towards using mobile tools for language learning, seeking motivation, enriched experiences, and effective utilization within language contexts. Considering the average scores of expressions regarding effort expectancy, the findings suggested that students adeptly acquired the skills to use mobile tools for learning foreign languages. With respect to social influence, the results underscored students' belief in the effectiveness and significance of mobile tools in acquiring foreign languages. Regarding facilitating conditions, the outcomes underscored the significance of internet access for language learning via mobile devices. However, learners also pointed out a notable gap in

technical support provision and access to diverse language-learning applications on mobile devices, indicating areas that may require improvement or attention to enhance the learning experience. Considering the behavioral willingness, the findings suggested a generally moderate level of engagement among students. Learners expressed readiness to utilize mobile tools for language learning themselves, indicating a willingness to incorporate these tools into their future language learning experiences. These sentiments align with previous studies which have shown that students across various educational levels actively use mobile devices for accessing course materials, communicating with peers, and engaging in online activities, thus integrating these tools into their learning processes effectively (Çavuş, 2011; Ma, 2017). For instance, research by Zou and Yan (2014) indicated that most learners believed MALL could significantly enhance learning efficiency by reducing the time required for pre-learning activities. Furthermore, studies have highlighted the necessity of providing adequate training and support to preservice English teachers to ensure effective MALL implementation in future classrooms (Oz, 2015). This support is vital not only for overcoming implementation challenges but also for maximizing the potential benefits of MALL, which include enhanced language acquisition and increased motivation and engagement (Harbelioğlu, 2020; Özer & Kilic, 2018). Overall, these findings emphasize the importance of fostering positive attitudes towards mobile learning, providing adequate support, and leveraging the potential impact of mobile tools on language education. They highlight that attitudes toward mobile learning significantly influence learners' intent to use mobile technologies, suggesting that both student preferences and institutional support are crucial for successful mobile learning implementation.

The second research question explored how various factors affect the use of mobile applications for language learning among high school EFL learners. This was examined using both quantitative questionnaires and qualitative interviews. The analysis showed that women consistently scored higher on the UTAUT scale than men, particularly in performance expectancy, behavioral orientation, attitude, and overall UTAUT scores. These findings are consistent with prior research; for instance, Dwivedi et al. (2019) and a 2011 meta-analysis by the same authors found similar gender-related trends in UTAUT scores. Additionally, studies by Lewis et al. (2013) and Harbelioğlu (2020) confirmed that female students tend to utilize mobile applications for language learning more frequently than their male counterparts. Secondly, the UTAUT scores were also analyzed across different age groups using an ANOVA test, which showed no significant differences in scores for effort expectancy, social influence, behavioral intention, and attitude. However, notable differences were found in performance expectancy and facilitating conditions, with 16-year-olds displaying higher levels compared to 15-year-olds and 17-year-olds. Despite these findings, broader research, such as studies by Lewis et al. (2013) and Nistor et al. (2014), suggests that age generally does not influence the adoption of mobile applications in language education, except in specific aspects like performance expectancy and facilitating conditions. This indicates that while age may influence certain attitudes towards mobile learning, it does not broadly affect the use of technology in language education. Thirdly, the UTAUT scores among students were analyzed based on their school types using an ANOVA test, revealing significant variations in performance expectancy, effort expectancy, facilitating conditions, and overall UTAUT scores, while no significant differences were noted in social influence, behavioral intention, and

attitude. Specifically, students from Science High Schools exhibited higher levels of performance expectancy than those at Vocational High Schools. Anatolian High School students showed greater effort expectancy than their peers at Religious Vocational High Schools. Additionally, students from both Anatolian and Science High Schools scored higher in facilitating conditions and overall UTAUT scores compared to other groups. These findings align with Yıldırım's (2012) research, which demonstrated the effectiveness of mobile applications in language learning through educational games, regardless of school type. Similarly, Şad et al. (2022) observed that program or department type did not significantly affect preservice teachers' perceptions of mobile learning devices. Together, these studies corroborate that while UTAUT scores may vary by school type, mobile applications maintain their effectiveness across diverse educational settings. Fourthly, The UTAUT scores among students were evaluated based on their smartphone ownership using an independent sample ttest. The analysis revealed no significant differences in Performance Expectancy, Social Influence, Behavioral Intention, and Attitude scores (p > .05). However, significant differences were noted in Effort Expectancy, Facilitating Conditions, and overall UTAUT scores ($p \le .05$), with smartphone owners showing higher scores. This suggests that smartphone ownership may uniquely influence technology acceptance, as indicated by Şad et al. (2022), who found that laptop ownership did not significantly impact preservice teachers' views on mobile learning devices. Venkatesh et al. (2012) also observed a high tendency to use mobile applications among participants, aligning with the higher UTAUT scores among smartphone owners in this study. Finally, UTAUT scores were analyzed concerning students' regular internet access. Significant differences were observed in all categories ($p \le .05$), with students who regularly accessed the internet scoring higher in every aspect of the UTAUT scale. This indicates that regular internet users have more positive perceptions and proficiency in using technology for language learning. Supporting this, Harbelioğlu's (2020) study found that students with frequent mobile phone usage and regular internet access exhibited a highly positive attitude towards enhancing their foreign language skills. Additionally, Kim and Lee (2016) identified that factors like content reliability, perceived enjoyment, usefulness, and ease of use also influenced students' acceptance of MALL. These findings collectively highlight the critical role of regular internet access, along with other factors, in fostering a positive perception and acceptance of technology for language learning.

The third research question examined which specific mobile applications high school students use for language learning. Duolingo was the most popular, used by 22.2% of participants (144 students), followed by Google Translate with 1.5% (10 students). Other apps like Hello Talk, Jasmin Academy, Open English, Reverso Context, and Voscreen each had a usage rate of 0.2%, with only one participant using each. Notably, 491 students did not respond, possibly due to non-use of apps or reluctance to disclose preferences. Concerns about the confidentiality of their responses were addressed, although some hesitancy remained, potentially affecting the completeness of the responses. Factors such as age, interests, proficiency level, school type, and mood likely influenced the varied responses. Duolingo was favored for its diverse levels and exercises, enhancing vocabulary and grammar skills. Google Translate was primarily used for reading support, helping with unfamiliar words or text translation. Apps like Voscreen and Hello Talk, mainly used for speaking and listening post-

school, had minimal usage. Interviews, on the other hand, revealed grade-specific preferences: 10th and 11th graders preferred Duolingo, Cake, and Cambly, whereas 9th graders favored Tureng, Google Translate, and Grammarly. Eleventh graders also used YouTube and social media platforms like Instagram and Telegram for language learning and accessing educational content and videos. These findings corroborate studies such as Tiliç (2016), which recognized Duolingo's popularity for language learning, and Güngör et al. (2021), who noted the benefits of machine learning-based English learning apps. Klimova and Al-Obaydi (2023) also supported the effectiveness of mobile applications due to their portability and accessibility, reinforcing the role of apps like Duolingo in facilitating language learning.

Conclusion

This study explored the perceptions and attitudes of high school English as a Foreign Language (EFL) learners towards mobile language learning applications and examined how gender, age, school type, smartphone ownership, and regular internet access influence their utilization. Additionally, the study aimed to identify the specific mobile applications preferred by students for language learning. Data were collected through a Unified Theory of Acceptance and Use of Technology (UTAUT) survey and semi-structured interviews, and analyzed both quantitatively and qualitatively. The analysis revealed a strong positive attitude towards mobile apps, with high mean scores on the UTAUT scale demonstrating a robust inclination towards using these tools for language learning. Students reported that apps facilitated high motivation and enriched experiences, especially in acquiring language skills. The study also uncovered significant gaps in technical support and the diversity of available apps, indicating areas for improvement. Challenges such as battery drainage, connectivity issues, and disruptive ads sometimes hindered the learning experience, yet mobile apps were still highly valued for enhancing language skills, apart from writing.

Regarding the factors influencing mobile app utilization, the analysis showed that female students and those with regular internet access scored higher on various UTAUT dimensions. Age did not significantly influence most UTAUT dimensions, but there were notable differences in performance expectancy and facilitating conditions. Similarly, school type and smartphone ownership impacted scores differently, affecting aspects such as effort expectancy and facilitating conditions. Regarding preferences for specific applications, Duolingo emerged as the most popular, particularly valued for its vocabulary and grammar exercises. Other apps were also used but to a lesser extent, with preferences varying by grade level: younger students tended towards basic translation and grammar apps, while older students preferred more advanced platforms.

In summary, the findings suggest that high school EFL learners generally hold positive views towards mobile language learning applications, using them for a variety of English language practice and development activities.

Drawing from the findings of the present study, several potential directions for future research emerged. First, exploring longitudinal studies could be beneficial to trace changes in perceptions and attitudes towards mobile language learning applications over an extended

period. This approach could unveil trends, shifts, or long-term impacts on language learning outcomes. Second, future research could investigate the effectiveness of specific mobile applications in language learning. Experimental designs comparing language learning outcomes of students using different apps could provide insights into their impact on language proficiency. Third, exploring the perspectives of English Language teachers concerning the integration of mobile applications in high school EFL classrooms could offer a more comprehensive understanding of the overall ecosystem. Fourth, implementing intervention studies, such as workshops or training programs, to enhance students' utilization of mobile language learning applications could be valuable. Assessing the impact of these interventions on learning outcomes would contribute to practical insights. Additionally, examining the potential integration of mobile language learning applications into the formal English curriculum in high schools could involve assessing the feasibility, challenges, and benefits of such integration. Finally, the National Ministry of Education in Türkiye has recently launched applications called Diyalekt and Diyalekt Kids. These applications aim to contribute to the development of English language skills of students in all age groups. They use a language learning method based on the European Language Portfolio (ELP) and the Common European Framework of Reference for Languages (CEFR) standards, which includes content prepared considering the four language skills, as well as books, short and long videos, activities, and exams where students can evaluate themselves. It is recommended that future researchers explore the potential and impact of these nationally developed applications for English language learning.

Implications for English Language Teaching

This study has implications for English Language Teaching (ELT) teachers, educational authorities, and policymakers, particularly in the integration of mobile apps into English lessons in state high schools. The literature suggests that integrating mobile apps into education can transform lessons into more engaging and effective experiences if the necessary infrastructure is provided. It encourages ELT teachers to adopt mobile applications, which offer customization and flexibility, allowing students to tailor their learning paths based on individual preferences and proficiency levels. Consequently, as suggested by the previous research (Solmaz, 2018), language educators develop pedagogically sound methods by considering various factors, including the technical aspects of such digital platforms and tools, the multimodal ways in which they are employed, and the dynamics of the classroom. Policymakers and school administrators should ensure access to mobile devices and reliable internet connectivity to enable comprehensive usage of language learning resources. Additionally, effective integration of mobile apps requires that teachers receive proper training and guidance through workshops or professional development programs, enhancing their ability to utilize various language learning applications (Gutiérrez-Colón et al., 2023). Teachers can further support this integration by incorporating apps into assignments and projects, thereby fostering a supportive environment that motivates students to explore these tools. The study emphasizes that embracing mobile applications aligns with modern educational practices, promoting the importance of technology in enhancing language learning across various educational settings. This alignment provides a roadmap for ELT professionals and

policymakers to maximize the potential benefits of mobile applications, ensuring enriched language learning experiences in high schools.

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