

## The Supplementary Use of English Learning Applications: Iranian EFL Learners' Attitudes, Perceptions, and Experiences

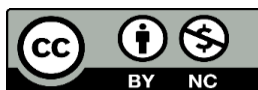
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Article Info	Abstract
<p><b>Article type:</b> Research Article</p> <p><b>Article history:</b> Received February 06, 2026  Received in revised form March 21, 2026  Accepted March 28, 2026  Published online March 29, 2026</p> <p><b>Keywords:</b> Applications, MALL, CALL, Perceptions, Experiences</p>	<p>The purpose of this research was to investigate Iranian EFL students' attitudes about using English Language Learning Applications (ELLAs) as additional resources for their English language studies. Using a mixed method, the researchers used a survey and in-depth interviews to collect information from 73 students who are studying English as a foreign language and English Literature at an Iranian university. The results of the survey found that most of the students had moderately to very positive feelings toward using ELLAs for improving vocabulary, listening, reading, and pronunciation skills. However, the students did not feel as motivated or enthusiastic about using ELLAs for developing their speaking and writing skills, since they felt that these areas were best developed in a traditional classroom setting. There were no statistically significant gender differences. The qualitative part was analyzed using Braun and Clarke's (2006) thematic analysis procedure consisting of six steps. It provided evidence of some of the obstacles that may affect students' motivation to engage with ELLAs, such as technical difficulties; low motivation; and other types of linguistic, cultural, and economic barriers. Overall, the findings of this study support the idea that learners see ELLAs as flexible and autonomous supplements to classroom instruction, but not as replacements for classroom instruction. The study also provides a contribution to the field of mobile-assisted language learning by highlighting the context-specific aspects that influence the use of ELLAs in Iran and providing suggestions for how to effectively integrate ELLAs into pedagogy.</p>

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## Introduction

In recent years, rapid developments in mobile technology have had a significant impact on the way that learners of languages access and engage with learning materials in the context of English Language Education (ELE). Specifically, the rise of English Language Learning Apps (ELLAs), have opened up new opportunities for learners to engage in personalized, flexible and self-directed learning (Kukulka-Hulme et al., 2017; Mostofi, 2018). Within the wider area of Computer-Assisted Language Learning (CALL), mobile-assisted language learning (MALL) has enabled shifts from teacher-centered models toward learner autonomy and technology mediated engagement (Aydin, 2018).

Mobile devices, have become an integral part of daily communication and learning and offer learners access to a wide range of multimedia resources, interactive activities, and gamified feedback. The features mentioned above enable learners to continuously practice and have been shown to positively affect motivation, vocabulary acquisition, pronunciation and comprehension (Bodnar et al., 2016; Chen et al., 2019). In addition, the portability of mobile devices offers learners the opportunity to learn “anywhere and at any time” and especially in contexts where learners do not have regular access to authentic English input (Ghorbani & Golparvar, 2020). Research studies show that well-designed mobile apps can increase learner autonomy, motivation and language proficiency (Abugohar et al., 2019; Al-Bogami & Elyas, 2020).

Although mobile apps are increasingly being used, there are many challenges when it comes to the effective integration of ELLAS into classrooms. Learners may encounter problems with poor internet connection, distraction, limited quality of feedback and variable levels of motivation (Metruk, 2022). Some studies highlight the positive aspects of these apps in terms of motivation and pedagogy (Okumuş et al., 2020) but others warn that unmediated or overuse of these apps could result in superficial learning or excessive reliance on technology (Ahmad, 2019). Limitations of technology, compatibility issues with devices, and financial constraints may limit equitable access and learning outcomes (Baek et al., 2017).

There is another important and relatively unexplored aspect concerning gender-related differences in the use of mobile-assisted language learning. Previous researches have presented different results: some studies did not find any significant differences in terms of learners’ attitudes toward mobile learning (Nami, 2020; Bouzayenne, 2023) while others reported differences in terms of the frequency of use, perceived usefulness, and learning styles (Mohammadi & Talebinejad, 2015). These contradictions suggest the necessity of conducting context-specific research.

Iranian EFL learners present a specific context where the conditions are favorable for studying the phenomenon. In fact, although the majority of Iranians own mobile phones, unequal distribution of Internet access, digital literacy, and socio-economic conditions prevent them from making full use of digital resources (Daltio et al., 2018). Currently, teaching English

in Iran is mostly based on a teacher-centered model that emphasizes the study of grammar and reading skills much more than communicative competence (Bozorgian, 2018). As a result, few opportunities exist for genuine interactions and autonomous practices.

ELLAs may help address this issue by offering learners opportunities for autonomous, self-directed study. However, little is currently known about how Iranian EFL learners perceive and use ELLAs. It is also unclear what difficulties they face or whether gender influences their experiences. Further investigation into this topic is therefore needed. Such research could provide a better understanding of how to integrate ELLAs effectively into English language instruction in Iran. This study could add to the ongoing research on MALL, providing empirical evidence on how Iranian EFL learners experience and evaluate ELLAs. Furthermore, the findings will be useful to teachers, educational developers and policy makers in order to identify the pedagogical potential and limits of integrating app-based learning as an extra to traditional classroom teaching. Additionally, although several studies have examined L2 learners' perceptions of ELLAs, most have been conducted in Western or technologically advanced contexts. Therefore, understanding the specific perceptions of Iranian EFL learners is critical, as these insights can guide the design of more effective and culturally responsive mobile learning environments tailored to the unique cultural, infrastructural, and educational realities of Iran. Due to the importance of research on gender-related differences in the Iranian EFL context, it is necessary to conduct further research to elucidate how gender intersects with contextual and psychological variables in determining the adoption of ELLA. In order to fill the gap in the above-mentioned literature, this study addresses the following research questions:

- What are the attitudes and perceptions of Iranian EFL learners toward the supplementary use of English learning apps?
- Do male and female EFL learners exhibit statistically significant differences in terms of their attitudes and perceptions toward the use of English learning apps?
- What are the most common obstacles and challenges encountered by Iranian EFL learners in utilizing English learning apps?

## Literature Review

### MALL and the Emergence of ELLAS

The inclusion of mobile technologies in the process of teaching and learning foreign languages has revolutionized the ways in which learners of languages can access and participate with the language they are studying. MALL facilitates flexible, personalized and learner-centered learning that goes beyond the confines of the classroom (Criollo-C et al., 2021; Lei et al., 2022). Prior research has demonstrated the potential of MALL to improve motivation, participation and self-regulation in learners, who are able to access authentic, multimedia inputs “anytime and anywhere” (Fithriani, 2024). Within this broader pedagogical framework, ELLAS have

emerged as fundamental tools that facilitate learners' autonomous practice of multiple language skills.

Studies carried out previously have demonstrated that ELLAS can contribute to the improvement of vocabulary, pronunciation and listening comprehension (Hajizadeh, et al., 2023). The gamification, multimedia richness and immediate correction of errors of these apps have proven to promote sustained motivation and retention of the language (Chen et al., 2023; Fithriani, 2024). For example, Ghanizadeh et al. (2022) reported that Iranian learners using idiom-learning apps showed greater retention and motivation compared to learners using traditional materials. Similarly, Tavassoli and Beyranvand (2023) found that learners who received vocabulary instruction via Instagram showed greater motivation and collaboration than those who did not receive instruction via social media. Platforms that facilitate interaction, such as WhatsApp and Duolingo, have also proven to be successful in the development of learners' speaking fluency by enabling them to communicate authentically (Ahmed et al., 2022). Collectively, these studies show that mobile-based tools can successfully complement classroom instruction by enhancing learners' exposure to the target language, autonomy and enjoyment of learning.

### **Learners' Attitudes toward ELLAS**

Recent studies have indicated that learners generally consider ELLAS to be effective, entertaining, and convenient tools that facilitate learners' autonomy and flexibility (Sadeghi & Chalak, 2023; Faridi & Izadpanah, 2024). Positive attitudes toward the use of ELLAS have been linked to increased motivation, decreased language anxiety and increased perceived control over the pace and content of the learning process (Fithriani, 2024). Both Iranian and international studies have reported that learners see mobile apps as empowering supplements to formal instruction (Chen et al., 2023; Fithriani, 2024).

Nevertheless, several restrictions impede the effectiveness of ELLAS. Technical obstacles, including poor internet access, small screens and compatibility issues with devices, are commonly reported (Metruk, 2022; Nghi & Thang, 2024). Educational obstacles continue to exist as well, such as inadequate support from teachers, absence of structured feedback and dominance of receptive skills (Simbolon, 2021; Chen, 2021). These findings suggest that, even though ELLAS support learners' autonomous learning, their effectiveness is contingent upon a combination of scaffolding, informed pedagogical incorporation and institutional support.

### **Gender Differences in Mobile Learning Attitudes**

Research exploring gender differences in mobile learning attitudes has produced conflicting findings. A number of studies have reported that there are no statistically significant differences in attitudes, perceptions and learning outcomes between males and females (Ebadi & Raygan, 2024; Aljasir, 2023; Nami, 2020), suggesting that both males and females generally benefit equally from MALL. Nevertheless, other studies have highlighted nuanced differences. Khasawneh (2024), for example, found that male learners tend to prefer competitive and game-

based applications, while female learners tend to prefer communicative and collaborative tools. Similarly, Coşkun and Solmaz (2024) reported that Turkish female students displayed greater acceptance of mobile-assisted learning, however, motivational and contextual variables also affected the results. An earlier study conducted by Metruk (2021) and Hsu et al. (2017) reported modest variations in terms of engagement and performance, and suggested that gender may be intertwined with factors such as motivation, access and familiarity with technology, rather than being a direct cause.

## Method

### Design

A Convergent Parallel Mixed Methods approach (Creswell & Plano Clark, 2017) was adopted in order to investigate the attitudes and perceptions of Iranian EFL learners toward the supplementary use of ELLAS, as well as to identify the challenges they face. Quantitative and qualitative data were collected simultaneously, analyzed separately and then integrated during the interpretation of the results. The quantitative component evaluated overall patterns through a structured questionnaire, while the qualitative component evaluated deeper explanations through semi-structured interviews. This approach facilitated triangulation and enriched the understanding of learners' experiences (Dobakhti, 2020).

### Participants

73 Iranian EFL students took part in the quantitative component of the study, and 12 students volunteered to take part in follow-up interviews. Purposeful sampling was used in order to ensure that all the participants were active users of at least one English learning app, along with other methods of learning. The participants included undergraduate and MA students majoring in TEFL and English Literature at various Iranian universities and were between the ages of nineteen and twenty-seven, and represented both genders (Table 1).

**Table 1**

*Participants' Characteristics*

Group	N	Gender (F/M)	Age Range	Academic Level	Field of Study
Survey Participants	73	42 / 31	19–27	44 BA / 29 MA	TEFL, English Literature
Interview Participants	12	8 / 4	19–26	7 BA / 5 MA	TEFL, English Literature

## Instruments

### *Questionnaire*

The quantitative data were collected through a modified version of the questionnaire developed by Metruk (2021), that is initially intended to evaluate the attitudes and perceptions of EFL learners concerning the use of mobile-assisted English learning. It includes three different parts: demographic information, app usage habits (11 items) and perceptions (19 items). All items are evaluated using a five-point Likert scale which ranges from strongly disagree (1) to strongly agree (5). The questionnaire evaluates learners' opinions about the advantages (effectiveness, convenience, motivational value, and flexibility) of ELLAs in improving vocabulary, pronunciation, grammar, listening, reading, speaking, and writing skills. In order to verify the clearness of the items, the questionnaire was piloted on four students. The overall Cronbach's alpha coefficient equals to .95 and it therefore shows the high level of the internal reliability. The construct validity of the questionnaire has been demonstrated previously in studies in the field of EFL.

### *Interviews*

For providing further support for the results obtained by the quantitative methods, semi-structured interviews were conducted and audio-recorded with twelve volunteers. Each interview lasted for half-an-hour to one hour. The researchers did not try to interrupt the participants when they were willing to express their opinions freely and frankly. So that the researchers tried to make sure that the saturation issue was fulfilled. The interviews were conducted either online or face-to-face according to the preference of the participant. The interviews were conducted in person to make sure that the saturation point is guaranteed and every detail is covered.

The interview protocol explored:

- the kind of apps that learners used, as well as the reasons for their use;
- the perceived effects on language skills;
- motivational and emotional responses to app use;
- challenges and obstacles connected with app use.

### *Procedure*

The questionnaire was sent electronically through social media and e-mail, making it possible to complete the questionnaire anonymously and conveniently. In addition, after completing the questionnaire, the participants were asked if they would be willing to participate in an interview. The interviews were audio-recorded with consent of the participant; the transcriptions of the recordings were then analyzed.

## Data Analysis

The data were analyzed with SPSS software package (version 26). First of all, the reliability and normality of the data were checked. Then, descriptive statistics (mean, standard deviation) were calculated to describe the learners' attitudes and perceptions. Additionally, independent samples t-tests were conducted to identify potential gender-related differences; the level of significance was set at  $p < .05$ .

The interview transcripts were analyzed using Braun and Clarke's (2006) thematic analysis procedure consisting of six steps. The interview transcripts were analyzed using Braun and Clarke's (2006) six-step thematic analysis procedure. First, we familiarized ourselves with the data by reading and re-reading the transcripts. Second, we generated initial codes across the entire dataset. Third, we searched for themes by grouping related codes. Fourth, we reviewed and refined the identified themes. Fifth, we defined and named each theme clearly. Sixth, we produced the final report by selecting relevant extracts to support each theme. An inductive approach was applied for coding, where both the semantic and latent aspects of the data were captured. To enhance credibility, the data were subjected to member-checking, and the codes were reviewed by two researchers independently.

## Results

The integration of the results was guided by the principle of triangulation. For this purpose, the quantitative patterns (for example, the most popular skills or app functions) were compared with the qualitative explanations (for example, the reasons behind the preferences of the learners, as well as the specific difficulties encountered). This integration increased the explanatory power of the study. Table 2 illustrates the method of analysis as well as the data source for every research question.

**Table 2**

*RQ-Instrument-Data-Analysis*

Research Question	Data Source	Data Type	Analysis Method
RQ1. Learners' attitudes and perceptions toward ELLAs	Questionnaire & Interviews	Quantitative & Qualitative	Descriptive statistics; Thematic analysis
RQ2. Gender-based differences in attitudes and perceptions	Questionnaire	Quantitative	Independent-samples <i>t</i> -test
RQ3. Challenges faced by learners while using ELLAs	Interviews	Qualitative	Thematic analysis

In the quantitative strand of this research, instrument reliability was ascertained by Cronbach's Alpha (.95). Within the qualitative strand of this research, credibility and dependability of the findings were established through a process of member checking, peer debriefing, and descriptive documentation of the context in which the participants provided the data. Furthermore, the methodological training of both the quantitative and qualitative strands contributed to the interpretive validity of the research.

This study was conducted within the framework of the ethical standards for research on human participants. Learners gave informed consent prior to participating in the study. Confidentiality was maintained throughout the duration of the study. Pseudonyms were utilized for each learner who participated in the study and their data was kept secure.

Cronbach's alpha (.95) values indicated satisfactory internal consistency across questionnaire subscales. The Kolmogorov–Smirnov and Shapiro–Wilk tests confirmed normality ( $p > .05$ ), supporting the use of parametric analyses. Mean interpretations followed Sarigöz (2015): (1.00–1.80 = very low; 1.81–2.60 = low; 2.61–3.40 = moderate; 3.41–4.19 = high; 4.20–5.00 = very high).

The learners reported using ELLAs most frequently to develop receptive and linguistic skills, particularly vocabulary ( $M = 3.94$ ), listening ( $M = 3.80$ ), pronunciation ( $M = 3.61$ ), and reading ( $M = 3.50$ ). Practicing writing ( $M = 2.43$ ) and speaking ( $M = 2.31$ ) were reported less frequently. Dictionary apps were widely used ( $M = 3.91$ ).

Regarding contexts of use, the learners preferred using apps at home ( $M = 3.78$ ), while use in classroom settings ( $M = 2.78$ ) and during commuting ( $M = 2.52$ ) was less common (See Table 3).

Overall attitudes score (see Table 3) were moderately positive ( $M = 3.27$ ,  $SD = 0.51$ ).

**Table 3**

*ELLA Attitudes Mean and Standard Deviation for each Item*

	Statement	Mean	SD
1	I use English language learning app(s) installed on my smartphone for practicing listening skills.	3.80	1.10
2	I use English language learning app(s) installed on my smartphone for practicing speaking skills.	2.31	0.86
3	I use English language learning app(s) installed on my smartphone for practicing reading skills.	3.50	1.02
4	I use English language learning app(s) installed on my smartphone for practicing writing skills.	2.43	0.84
5	I use English language learning app(s) installed on my smartphone for practicing grammar.	3.39	1.07
6	I use English language learning app(s) installed on my smartphone for practicing vocabulary.	3.94	0.64

7	I use English language learning app(s) installed on my smartphone for practicing pronunciation.	3.61	0.84
8	I use my dictionary app(s) on my smartphone on a regular basis.	3.91	0.92
9	I use my English Language learning app(s) for practicing English when I am at school/language class.	2.78	1.03
10	I use my English Language learning app(s) for practicing English when I am at home.	3.78	0.90
11	I use my English Language learning app(s) for practicing English while I commute/travel to school/work, etc.	2.52	0.96

The learners perceived the strongest improvement in vocabulary ( $M = 4.02$ ), listening ( $M = 3.90$ ), and grammar ( $M = 3.65$ ). They endorsed the flexibility of “anytime and anywhere” learning ( $M = 3.75$ ) and considered ELLAs useful for fostering learner autonomy ( $M = 3.52$ ). Perceptions of speaking ( $M = 2.79$ ), writing ( $M = 2.83$ ), confidence ( $M = 3.06$ ), and creativity ( $M = 3.04$ ) were more neutral. ELLAs were not preferred over traditional instruction ( $M = 2.56$ ), confirming their supplementary role. Table 4 presents the detailed descriptive values for each perception item.

As demonstrated in Table 5, overall perceptions of ELLA effectiveness were high ( $M = 3.42$ ,  $SD = 0.43$ ).

**Table 4**

*ELLA Perceptions Mean and Stanard Deviation for each Item*

	Statement	Mean	SD
12	English language learning apps in my smartphone help me develop and enhance my listening skills.	3.90	1.09
13	English language learning apps in my smartphone help me develop and enhance my speaking skills.	2.79	0.98
14	English language learning apps in my smartphone help me develop and enhance my reading skills.	3.65	0.91
15	English language learning apps in my smartphone help me develop and enhance my writing skills.	2.83	0.89
16	English language learning apps in my smartphone help me develop and enhance my grammatical system (grammar).	3.65	1.03
17	English language learning apps in my smartphone help me develop and enhance my lexical system (vocabulary).	4.02	0.91
18	English language learning apps in my smartphone help me develop and enhance my phonological system (pronunciation).	3.57	0.91

19	English language learning apps in my smartphone allow me to practice my English anywhere and anytime.	3.75	0.75
20	English language learning apps help me find solutions on my own.	3.58	0.81
21	Practicing English by using English Language learning apps represents an important part of my English language learning process.	3.21	1.18
22	Practicing English by using English language learning apps is easy and flexible.	3.60	1.06
23	Practicing English by using English language learning apps is convenient.	3.26	0.85
24	Practicing English by using English language learning apps is effective.	3.68	0.83
25	Practicing English by using English language learning apps is enjoyable.	3.69	1.07
26	Practicing English by using English language learning apps motivates me to study English.	3.63	1.10
27	Practicing English by using English language learning apps makes me more confident.	3.06	1.12
28	Practicing English by using English language learning apps makes me more creative.	3.04	0.91
29	Practicing English by using English language learning apps makes me more autonomous.	3.52	0.94
30	I prefer using English language learning apps for practicing English in comparison to traditional English language learning method.	2.56	0.97

**Table 1***Overall Attitudes and Perceptions Scores*

Subscale	Mean	SD	Interpretation
Attitudes toward ELLA use	3.27	0.51	Moderate to high
Perceptions of ELLA effectiveness	3.42	0.43	High

Four main themes were developed from thematic analysis of semi-structured interviews with 12 participants; these themes included (1) usage and skill-specific improvement, (2) perceived effectiveness, (3) convenience and integration, and (4) motivation and autonomy. Table 6 illustrates sub-themes, codes, frequency, and representative quotes for each theme.

### Usage and Skill-Specific Improvement

Most of the participants indicated that they used the ELLAs to improve their language skills and receptive skills, especially vocabulary (90%), pronunciation (90%), listening (65%), and

reading (65%). Many of the apps that were most frequently mentioned included Memrise, Tahlilgaran Dictionary, and LearnEnglish Podcasts. The participants appreciated the accessibility of authentic materials and the opportunity for independent practice. For example, one participant stated, “Apps like LearnEnglish Podcasts provide real life listening content with high quality audio, which make it so much more enjoyable to practice.” Writing and speaking practice were less frequent (35%); although, Grammarly and HelloTalk were useful tools to some of the participants, many of the participants felt that there is currently a gap in communicative capability among current speaking apps.

### Perceived Effectiveness

The participants overwhelmingly agreed that ELLAs are an effective tool due to the immediate feedback, authenticity of materials, and ability to track progress provided by the apps. The instant feedback provided by the apps was highly praised for helping students develop self-awareness. Additionally, the participants noted that the visual tracking of progress (i.e. streaks, badges) that many of the apps provide also serves as a motivational tool for learners.

### Convenience and Integration

The portability and flexibility of mobile learning was seen as a significant advantage by the majority of the participants (90%), who appreciated being able to practice English at any location or time and integrated short learning sessions into their daily routines. The offline mode was also highly praised by those participants whose internet connections were unreliable, and the short, modular nature of the lessons made it easy for the participants to fit learning into their busy university schedules.

### Motivation and Autonomy

ELLAs support learner autonomy and sustain motivation through flexible scheduling options, gamified elements, and customized learning pathways. The participants emphasized that the self-directed nature of the apps allows them to learn when they have both the time and the motivation. In addition to providing opportunities for self-pacing, many of the apps use gamified elements (e.g., earn points, create leaderboards) and customized learning content based on student’s previous performance and proficiency level to increase learner engagement. One learner explained, “The gamification in Learnit turns learning into a fun activity.” Customized learning pathways, offered by apps such as ENGO and Rosetta Stone, were particularly well-received as they address students’ unique proficiency levels and learning requirements. In the next table the themes and subthemes that emerged from interviews are displayed.

**Table 2**

*Themes and Subthemes Emerged from Interview for RQ1*

Theme	Subtheme	Key Codes	Representative Quote	F (%)
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Usage and Skill-Specific Improvement	Reading & Listening	Podcasts, authentic texts	“LearnEnglish Podcasts provides real-life listening content that makes practice enjoyable.”	8 (65%)
	Writing & Speaking	Proofreading, speaking with L1 users	“Speaking with native speakers through HelloTalk has boosted my confidence.”	4 (35%)
	Vocabulary & Pronunciation	Spaced repetition, flashcards, audio practice	“I repeat vocabulary at set intervals so they stay in my memory.”	11 (90%)
	Grammar	Short grammar lessons, quizzes	“Practicing grammar through short app-based quizzes is more engaging.”	5 (40%)
Perceived Effectiveness	Immediate Feedback	Auto-correction, speaking evaluation	“Instant feedback helps me correct my errors right away.”	7 (60%)
	Authentic Content	Native-speaker dialogues, audiovisual input	“Apps like Babbel immerse me in real-life content.”	7 (60%)
	Progress Tracking	Streaks, badges, learning history	“Tracking my progress keeps me motivated.”	5 (40%)
	Interaction with Speakers	Messaging, language exchange	“Live sessions allowed me to have real conversations and improve speaking.”	4 (35%)
Convenience and Integration	Mobile Accessibility	Anywhere/anytime learning	“I can practice English	11 (90%)

			whenever I have a few minutes.”	
	Offline Mode	Downloadable lessons	“Offline dictionary access is essential to my practice.”	5 (40%)
	Short Lessons	Bite-sized learning	“Short lessons fit my busy schedule.”	4 (35%)
Motivation and Autonomy	Flexible Schedules	Self-paced learning	“The flexibility of apps is amazing—I can practice whenever I want.”	10 (85%)
	Personalized Paths	Adaptive difficulty	“ENGO adjusts the difficulty based on my level.”	5 (40%)
	Gamification	Challenges, leaderboards	“Gamification turns learning into a fun activity.”	4 (35%)

The second research question asked whether gender-based differences existed in Iranian EFL learners’ perceptions and attitudes regarding the use of ELLAs; therefore, descriptive and inferential statistical methods were applied to compare and analyze gender differences in the two constructs.

Table 7 contains the means and standard deviation for male and female participants with respect to the ELLA perception and attitude scales. On both attitudes (Mean = 3.34, SD = .45) and perceptions (Mean = 3.50, SD = .39), male learners reported higher means than female learners (Female Means: Attitude = 3.22, SD = .55, Perception = 3.36, SD = .46) but all of the standard errors were very low (.05 to .08), so that the average values could be considered reliable. Therefore, to find out if the mean differences identified above are statistically significant, an inferential analysis was needed to complete the analysis.

**Table 3**  
*ELLA Attitudes and Perceptions across Gender*

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	31	3.50	0.39	0.07

Perceptions	Female	42	3.36	0.46	0.05
Attitudes	Male	31	3.34	0.45	0.08
	Female	42	3.22	0.55	0.08

To investigate gender differences in attitudes toward English Language Learning Apps (ELLAs), independent-samples t-tests were performed on the attitudes and perceptions of male and female learners of English as a Foreign Language (EFL). As reported in Table 8, Levene’s test was used to determine whether or not there was equality of variance for both attitude measures (perceptions:  $F(1,70) = 0.085, p = 0.772$ ; attitudes:  $F(1,70) = 2.068, p = 0.153$ ). Since the Levene tests did not indicate inequality of variance for either measure, results were interpreted using the equal variances assumption.

For the perception measures, results from the independent samples t-test showed that there was no significant difference based on gender for the perception of ELLA support,  $t(71) = 1.354, p = 0.180$ . The perceived mean difference was small ( $MD = .14, SE = .10$ ), and the 95 percent confidence interval ( $-.06$  to  $.34$ ) included zero, suggesting that the observed difference was not meaningful. For attitudes, results from the independent samples t-test also showed no significant gender-based difference in attitudes toward ELLA support,  $t(71) = 1.078, p = 0.285$ . The mean difference was again small ( $MD = .13, SE = .12$ ), and the 95 percent confidence interval ( $-.11$  to  $.37$ ) also included zero, indicating that the observed difference was not meaningful. Although the male participants had slightly higher scores than the female participants for both measures, the differences found were neither statistically significant nor practical. These results are consistent with those found for the attitudes measures. In each case, the null hypothesis of no gender difference was retained.

**Table 8**

*T-test Analysis for Comparison of Attitudes and Perceptions toward ELLAs across Gender*

	Levene’s Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Diff.	Std. Error	95% Confidence Interval of the Difference	
								Lower	Upper

Perceptions	Equal variances assumed	.085	.772	135	71	.180	.14	.10	-	.34
	Equal variances not assumed			135	69	.170	.14	.10	-	.34
Attitudes	Equal variances assumed	2.068	.153	170	71	.285	.131	.12	-	.37
	Equal variances not assumed			170	72	.270	.131	.11	-	.36

### Challenges in Using ELLAs

An overall thematic analysis of twelve Iranian EFL learners’ interviews identified five key areas where ELLAs pose difficulties for learners: technical issues, lack of motivation and engagement, linguistic and cultural barriers, financial constraints, and limited availability of tailored apps. Table 9 illustrates the main themes, subthemes, and number of participants who mentioned each theme.

#### Technical Issues

The participants encountered several technical issues when trying to utilize ELLAs. Technical issues included: internet connectivity problems (50%); app failures/glitches (30%); and device limitations (40%). As indicated by one participant: “I really enjoy learning from video lessons, but poor internet connection always disrupts the learning process.” In addition to internet connectivity issues, other device limitations – i.e., low storage capacity; small screen size; and limited battery life – may limit usability and the continuation of learning.

#### Lack of Motivation and Engagement

Motivational and engagement issues experienced by participants were related to difficulty in identifying ELLAs that provided interesting and applicable content; lack of face-to-face communication; and lack of informative feedback or guidance from instructors. Approximately 40% of the participants felt challenged in sustaining motivation because of limited social interaction: “Without face-to-face interaction, it is much more difficult to detect subtle aspects

of language and cultural norms.” Other participants (30%) indicated that they did not receive sufficient meaningful feedback or instructor guidance, resulting in uncertainty regarding their performance: “I require detailed and consistent feedback to monitor my progress and maintain motivation.”

### *Linguistic and Cultural Barriers*

Language and cultural-related challenges were prominent obstacles faced by the participants. One frequently encountered problem was the lack of support for Persian (the native language), making many ELLAs difficult to navigate for lower-proficient learners. The interviewees also expressed challenges related to navigating through English-only interfaces: “Several useful ELLA applications (e.g., Duolingo) do not provide Persian support. Therefore, beginning learners find it challenging to even understand how to use the application.” Furthermore, limited L1 support created additional barriers to accessibility for learners, increasing their cognitive load, especially for those learners at foundational levels of proficiency.

In addition to language and culture-related challenges, the participants also addressed issues of censorship and access restrictions limiting the use of popular international applications (i.e. Babbel, Busuu). Many learners were unable to engage with interactive content, global communities, and advanced features of applications used in other countries, due to these barriers. Finally, cultural perspectives toward learning impacted learners’ willingness to use ELLAs. Approximately 25% of the participants demonstrated a negative disposition toward technology-supported learning, indicating that many Iranian learners continue to favor traditional teacher-centered instructional approaches.

### *Limited Tailored of ELLAs for Iranian Learners*

The learners also indicated that there is a paucity of high-quality ELLAs specifically developed for learners in Iran. While existing applications such as Learnit and Zabanshenas are useful, the learners’ perceptions were that the applications were too limited in terms of scope. The learners recommended that content should be more culturally and contextually relevant for Iranian learners: “More English learning applications are needed that are based on Iranian EFL learners’ preferences, purposes, and experiences.”

### *Financial Constraints*

Financial constraints were another common theme among the participants. Approximately 40% of the participants indicated that restrictions on payment options for premium content and/or courses presented a barrier to their use of ELLAs. Additionally, approximately 25% of the learners indicated that they found the costs associated with premium content to be unaffordable. Approximately 50% of the participants indicated that the expenses associated with data and internet access limits their ability to maximize the potential of ELLAs: “I truly appreciate the video lessons of ELLAs, however, to view/download this content I am required to consume a considerable amount of data, which is very costly.”

**Table 9**

Themes and Subthemes Emerging from Investigating Perceived Challenges of Using ELLAs

Theme	Subtheme	Key Codes	Representative Quote	F (%)
Technical Issues	Internet Connectivity	Unstable connection, interrupted lessons	“Poor internet often interrupts my video lessons.”	6 (50%)
	App Crashes/Glitches	Freezing, lost progress	“The app froze and I lost my progress.”	4 (30%)
	Device Limitations	Low storage, small screen, battery drain	“I delete other apps to make space for learning apps.”	5 (40%)
Motivation and Engagement Issues	Difficulty Finding Quality Apps	Low-quality content, mismatch with needs	“There are many apps, but few are actually useful.”	6 (50%)
	Lack of Face-to-Face Interaction	Reduced motivation, limited collaboration	“Face-to-face communication is still important for me.”	5 (40%)
	Limited Feedback/Instructor Support	Lack of guidance, isolation	“It’s hard to stay motivated without someone guiding you.”	4 (30%)
Cultural and Linguistic Barriers	Limited Persian Support	No Persian interface, difficult for beginners	“Most popular apps don’t support Persian as a medium.”	3 (25%)
	Censorship & Access Restrictions	Blocked apps, limited access	“Many great apps are blocked here.”	4 (30%)
	Resistance to Technology	Preference for traditional learning	“Some students believe they can’t learn without a real teacher.”	3 (25%)
Lack of Localization	Few Iran-Specific Apps	Limited cultural fit, need for	“More apps should be designed for	3 (25%)

		tailored content	Iranian learners.”	
Financial Barriers	Payment Restrictions	International payments unavailable	“I couldn’t continue because I couldn’t pay for premium.”	5 (40%)
	High Cost of Premium Features	Expensive subscriptions	“Zabanshenas premium was too expensive.”	3 (25%)
	High Internet/Data Costs	Costly video/audio learning	“Video lessons use too much expensive mobile data.”	6 (50%)

The discussion section integrates and summarizes the main quantitative and qualitative findings. It creates a clearer bridge between the results. It also shows how the two sets of findings support and complement each other. By synthesizing the key evidence, the discussion provides a smoother transition between sections. It also highlights the main insights drawn from the data.

## Discussion

While the learners in the present study expressed generally moderate to positive attitudes toward ELLAs, especially those intended to enhance receptive skills, such as vocabulary acquisition, pronunciation, listening, and reading, their views were largely consistent with prior research on MALL (Metruk, 2021; Viberg & Grönlund, 2017). The learners in this study described ELLAs as enjoyable, flexible, and highly convenient tools that allow them to extend their English learning beyond the classroom walls. A major motivating factor behind the learners’ desire to use ELLAs appears to be the convenience of being able to learn at a time and place of their own choosing, a feature that supports self-regulated learning (Godwin-Jones, 2017; Dobakhti, & Khalili, 2024).

Although learners expressed enthusiasm for using ELLAs to develop receptive skills, they also voiced some serious reservations regarding the suitability of ELLAs for developing productive skills, specifically writing and speaking. They attributed the lower interest in using ELLAs to develop productive skills to a lack of opportunity to interact with others, a lack of scaffolding for developing productive skills, and inadequate opportunities to receive personalized feedback. Such concerns are consistent with Stockwell’s (2013) assertion that mobile technologies are likely to be more effective for input-based tasks than for output-based tasks requiring dialogue.

Self-Determination Theory (Deci & Ryan, 2000) provides an explanation for why learners expressed a lower level of interest in using ELLAs to develop productive skills. ELLAs provide learners with the opportunity to experience a degree of autonomy and competence by allowing

them to work independently at a time and place of their choice and by providing a structured practice environment. However, since few apps currently provide learners with sufficient opportunities for interpersonal engagement, ELLAs do not meet learners' need for relatedness. Consequently, learners' motivation to develop speaking and writing skills is diminished as they often rely on the provision of contextualized, socially-mediated feedback from peers and/or instructors.

The results of the study indicate that Iranian EFL learners perceive ELLAs as useful for reinforcing receptive skills, vocabulary development, and for encouraging autonomous learning, but they are less certain about the value of ELLAs for productive skill development. Features such as immediate feedback, personalized learning paths, and game-based elements were found to increase learner engagement, but continued to limit the extent to which learners used ELLAs to develop productive skills.

Consistent with other studies (Aljasir, 2023; Alkhudair, 2020; Bouzayenne, 2023; Ebadi & Raygan, 2024), the study did not find any statistically significant differences between males and females in terms of their attitudes toward ELLA use. Similarities in the mean scores of males and females in terms of their attitudes toward ELLAs are consistent with the larger trend of diminishing differences in smartphone ownership and digital literacy among men and women in Iran. Thus, the similarity in the attitudes of males and females toward ELLAs supports the notion that individual factors such as motivation, perceived utility, confidence, and learning style influence mobile learning engagement much more so than demographic characteristics such as gender.

Consistent with ecological approaches to understanding technology use (Blin, 2016; Kukulska-Hulme, 2021; Dobakhti, 2021), the study identified several challenges that influence the technical, motivational, cultural, and financial aspects of MALL use. Technical issues that included unreliable internet connections, app malfunctions, and hardware limitations influenced the learners' ability to use ELLAs regularly. In addition, financial constraints such as high data charges, premium subscription fees, and limited access to foreign payment systems further decreased the learning value of many apps. These technical and financial barriers are consistent with previous research highlighting inequalities in MALL availability in developing countries or countries with limited technological access (Baek et al., 2017; Reinders & Benson, 2017; Dobakhti, & Khalili, 2025).

Motivational barriers also influenced the learners' use of ELLAs. The learners stated that limited feedback mechanisms, poor personalization, and a lack of instructor support negatively affected their persistence in independent app-based learning. These concerns are consistent with those raised by Kukulska-Hulme and Viberg (2018) concerning the necessity of social presence, autonomy support, and interpersonal feedback to maintain engagement in MALL.

Several cultural/linguistic factors also influenced the learners' perceptions of ELLAs. For example, many of the apps available in Iran lacked Persian-language support, and therefore, the learners had difficulty navigating the apps, and some of the apps were censored because of

government restrictions. Furthermore, many of the learners indicated that they preferred teacher-centered learning and therefore were reluctant to use apps to develop productive skills. Such concerns are consistent with those raised by Viberg and Grönlund (2017) that the success of MALL depends not only on the quality of the technology itself but also on its alignment with local culture and instructional context. Therefore, the lack of localization and restricted access to digital technologies in Iran limits the potential for widespread integration of ELLAs into mainstream language instruction.

Overall, the main findings demonstrate that Iranian learners view ELLAs as useful means for supplementing their learning experiences, promoting autonomy, motivation, and receptive-skill development. However, they have limited use as primary tools for productive-skill development due to lack of interaction, limited localization, and structural barriers to accessing these tools. These findings further support ecological models of technology use (Blin, 2016), which posits that the adoption of digital technologies is influenced by a variety of institutional, sociocultural, and material conditions.

Pedagogical and practical implications for the findings include the integration of ELLAs into instructional frameworks that support blended or flipped classroom models, which will allow learners to take advantage of the flexibility and convenience of mobile technology to supplement their learning in ways that complement, rather than supplant, traditional instruction. Additionally, developers of ELLAs should prioritize the development of features that provide learners with more interactive opportunities, such as adaptive feedback, AI-assisted communication tools, and improved speaking and writing support. Localization of apps into Persian language versions and the creation of culturally relevant content will also facilitate greater uptake in Iran and similar EFL contexts. Finally, policymakers can help promote greater access to ELLAs by improving digital infrastructure, reducing data costs, and creating payment options that are more affordable and accessible to learners.

Finally, this study had several limitations. One limitation of the study was that it was based on a relatively small sample size (N=73) drawn from a small number of Iranian universities. Additionally, the study relied on self-report data, which may be subject to bias. Future research may seek to collect more objective data (e.g., app analytics or performance-based assessment data) to provide a more robust basis for conclusions regarding learners' app usage and proficiency gain. Another limitation was that the qualitative component was based on 12 volunteer participants, which was enough for achieving thematic saturation but limited the scope of perspectives represented in the study. Future studies should include a wider range of learners. This means different education levels, locations, and language skills. More longitudinal and experimental research is also needed. Such studies can test if ELLAs have lasting effects on speaking and writing. They can also help prove cause and effect. Finally, comparative studies across different EFL settings are important. These will show how culture, infrastructure, and teaching methods shape learners' attitudes and results in MALL environments.

## Conclusion

This study contributes to mobile-assisted language learning (MALL) research by examining how Iranian EFL students use English Language Learning Applications (ELLAs) as supplementary tools. While much existing MALL research focuses on Western or technologically advanced contexts, this study addresses a gap by focusing on the Iranian higher education setting. It provides context-specific insights into the cultural, linguistic, and infrastructural factors that shape ELLA use in Iran. By doing so, the study helps educators and researchers better understand how ELLAs can be effectively integrated into EFL pedagogy outside traditional classroom environments.

In conclusion, this study provided detailed information regarding Iranian EFL learners' beliefs, attitudes, and challenges regarding the supplementary use of ELLAs. The learners appreciated the flexibility, enjoyment, and autonomy afforded by ELLAs, yet they were skeptical regarding the applicability of ELLAs to productive-skills development without the involvement of a teacher or peer. Various technical, cultural, and financial challenges impeded the consistent and meaningful use of ELLAs by the learners.

Overall, the findings of this study reiterate that ELLAs function best as supplementary resources that enhance learners' autonomy, motivation, and receptive-skill development when incorporated into supportive instructional frameworks. As such, the most effective way to implement ELLAs in the Iranian EFL context and analogous EFL settings is to create hybrid systems that integrate the strengths of human mediation with the capabilities of mobile technology. With concerted cooperation among educators, policymakers, and developers, ELLAs have the potential to evolve into more localized, interactive, and accessible learning tools that can provide learners with meaningful language development experiences in the digital era.

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**First Author:** collected data, designed, conducted the procedure, and wrote the first draft.

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