Cultivating Opportunities: The Role of Guided Mobile-Assisted Task Performance on Reactivity to Mistake and L2 Willingness to Communicate

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Article Info

ABSTRACT

Technology has become integral to contemporary language learning, yet limited research has examined mobile-assisted learning modes and their effects on EFL learners' willingness to communicate (WTC) and reactivity to mistakes. This study investigated guided and unguided mobile-assisted task performance among 54 Iranian intermediate EFL learners aged 21–27. Participants were selected through the Oxford Placement Test and randomly assigned to one control group and two experimental groups. Data were collected using a WTC questionnaire, a reactivity-to-mistake scale, and semi-structured interviews. Quantitative and qualitative analyses revealed that mobile-assisted learning positively influenced classroom outcomes overall. However, guided mobile-assisted task performance produced significantly greater gains in learners' WTC and led to more adaptive responses to mistakes compared with unguided and control conditions. Interview findings supported the statistical results, indicating more positive attitudes toward guided mobile learning. The findings underscore the pedagogical value of structured guidance in mobile-assisted tasks for fostering communication readiness in classrooms.

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Introduction

Innovation in Information and Communication Technology (ICT) has been a driving force behind the transformation of educational methodologies, particularly in language learning. Recent advancements, such as Artificial Intelligence (AI), Augmented Reality (AR), and Machine Learning (ML), have introduced adaptive learning environments that cater to individual learner needs, enhancing personalized education (Hashim et al., 2022). These innovative technologies facilitate interactive and immersive learning experiences, which are crucial for language acquisition (Bizami et al., 2023) and can increase engagement and practical language use. The integration of these cutting-edge ICT tools not only supports traditional learning objectives but also fosters creativity, critical thinking, and problem-solving skills among learners, making language learning more effective and enjoyable (Keane et al., 2016). The innovative integration of ICT in language education also encompasses collaborative platforms and social media tools, which enable learners to engage in authentic communication and cultural exchange beyond the classroom (Kessler, 2018). Additionally, data analytics and learning management systems (LMS) provide educators with insights into learner progress and behavior, enabling more informed and responsive teaching strategies (Wang, 2017). In other words, the role of technology in education has evolved from a supplementary tool to an essential component of the teaching and learning environment (Eady & Lockyer, 2013). English language learners can now communicate and learn outside of the classroom, receive constructive feedback through mediation, and continuously improve their English-related skills through interactive activities by utilizing technologically enhanced tools like mobile phones. These tools allow learners to overcome the traditional constraints of traditional classroom settings, such as small class sizes, short durations, and high student numbers (Fathi et al., 2024).

Put another way, new educational opportunities have been made possible by the rapid progress of information and communication technology in recent years. With the majority of individuals owning mobile devices these days, learning can take place outside of the traditional classroom and is shifting toward mobile-assisted language learning (Wu & Perng, 2016). The lines between formal and informal learning are gradually becoming less distinct due to the development of new learning protocols for students made possible by mobile technologies (such as smartphones, PDAs, and tablet computers). These technologies allow people to learn language continuously in various contexts, tailored to their needs and abilities. Additionally, learners have more possibilities to interact and become more motivated to communicate as a result of the rising usage of mobile devices. They can utilize language to engage in various cultural experiences and meet everyday communication demands (Chen & Lin, 2023). As Chen (2024) points out, the stress-free aspect of mobile phones is important in today's EFL classrooms since it helps address issues such as learners' unwillingness to participate in discussions and limited practice time. Technology-enhanced devices, including smartphones, can assist in alleviating learners' reluctance to speak English by lowering anxiety and establishing a more comfortable atmosphere for language practice (Bashori et al., 2020), so encouraging a stronger willingness to

communicate (WTC).

It is worth noting that many learners are hesitant to speak English due to fear of making mistakes in front of their peers and receiving negative feedback. This hesitancy is frequently associated with an idea called "reactivity to mistakes"—the behavioral, emotional, and cognitive reactions that students display when they make mistakes while they are still learning (Chandler, 2003). Reactivity to errors is especially important while learning a language, since learners' confidence, motivation, and performance can all be negatively impacted by their dread of making mistakes (Gregersen & Horwitz, 2002).

Reactivity to mistakes can show itself in several ways, including heightened anxiety, a decreased desire to interact, and a propensity to shy away from difficult jobs. The learner's self-perception, prior experiences, and the perceived consequences of making mistakes all frequently have an impact on these responses. To put it another way, learners may feel fear, shame, or dissatisfaction on an emotional level, which might impede their development and motivation to participate in communicative activities (Gregersen & Horwitz, 2002). It has been demonstrated that students who respond strongly to errors may engage in avoidance strategies, such as avoiding speaking situations or choosing less complex language structures in order to reduce the likelihood of making a mistake (Horwitz, 2000). This conduct may hinder language acquisition and lower general communication proficiency. Furthermore, the cultural and educational environment also plays a significant role in shaping reactivity to mistakes. In some contexts, where mistakes are harshly criticized or seen as a sign of incompetence, learners may develop heightened sensitivity to errors, which further exacerbates reactivity (Dewaele, 2007).

Perfectionism is another quality that appears to be linked to the ability to react to errors. Perfectionists frequently show an increased sensitivity to mistakes, which can have a big effect on how well they learn languages. Perfectionists exhibit inadequate success development because they prioritize learning over avoiding mistakes, according to Borphy (1996, as referenced in Nugent, 2000). Their extreme worry causes students to participate less in class and to exhibit compulsive behaviors that have a detrimental effect on their learning styles. Nonetheless, instructors must use instructional tactics that provide a more encouraging learning environment in order to increase WTC and reduce sensitivity to errors. The use of mobile-assisted language learning, particularly guided mobile learning, appears to be one successful strategy. These cutting-edge techniques provide customized, adaptable, and less intimidating opportunities for learners to practice language skills at their own pace. By incorporating features such as real-time feedback and interactive tasks, MALL can help reduce the anxiety associated with making mistakes (Ebadijalal & Yousofi, 2023). Guided mobile learning, in particular, allows educators to structure learning experiences that encourage risk-taking, gradually build learners' confidence, and help them see mistakes as valuable learning opportunities (Wnag et al., 2023). Guided mobile-assisted task performance involves structured activities or exercises facilitated through mobile devices, typically with instructional guidance or

support (Hsu & Lin, 2022). These tasks can be designed to target various language skills, such as speaking, listening, reading, and writing. Through guided tasks, learners receive scaffolding and direction to navigate language challenges effectively (Kukulska-Hulme & Viberg, 2018). Moreover, the guided nature of mobile-assisted tasks can create a supportive learning environment that encourages experimentation and risk-taking. The focus of this study was on the guided aspect of mobile-assisted tasks. Innovation here involves structured, scaffolded activities that balance learner autonomy with instructor support. Guided mobile tasks are designed to help learners feel more secure as they practice language skills, reducing the anxiety associated with errors and mistakes.

Recent studies have highlighted the role of technology, such as computer-mediated communication and digital platforms, in enhancing L2 performance (Rahimi & Fathi, 2024; Tai & Chen, 2023). However, the connection between MALL, WTC, and learners' reactivity to mistakes—particularly in the context of guided versus unguided task performance—has not been sufficiently investigated. This is a critical area of inquiry, as reactivity to mistakes can manifest as increased anxiety, reduced WTC, and a tendency to avoid challenging tasks, all of which can significantly hinder language development (Gregersen & Horwitz, 2002). This gap in the literature presents an opportunity to investigate how guided mobile-assisted task performance affects learners' reactivity to mistakes and their willingness to communicate in their second language. By exploring this intersection, educators can better understand how to leverage mobile technology to promote effective language learning and communication skills in digital environments.

A brief note of previous works

Mobile-assisted Language Learning

The utilization of technology for educational purposes has sparked numerous transformations aimed at enhancing the quality of learning and teaching methodologies. Consequently, the acquisition of digital skills has become indispensable for effectively leveraging technology in educational settings. Teachers are urged to develop and refine their digital competencies as part of their professional development (Hwang et al., 2024). This entails the ability to create and curate multimedia content such as videos (Stockwell, 2021) and digital imagery (e.g., Thompson, 2019) to enhance student engagement and instructional efficacy. Moreover, educators are expected to adeptly utilize information and communication technologies (ICT), including internet resources and productivity tools like word processors, spreadsheets, and databases (Li & Chan, 2024). The integration of mobile technology as a component of mobile learning has prompted educators to explore its potential within the classroom context (Cahyono et al., 2023). Mobile technology offers distinct advantages over traditional computer-based learning, including portability, interactivity, collaboration, and practicality (Kukulska-Hulme, 2015). Consequently, there is growing support among educators for implementing mobile learning strategies and techniques (Zain & Bowles, 2024) to deliver enriching learning experiences for students.

Several studies explored mobile-assisted language learning (MALL) strategies and their impact

on student outcomes. Alotaibi and Zeidan (2023) found that a collaborative mobile game improved learning effectiveness and student perceptions of teamwork. Huang et al. (2024) highlighted differences in self-directed mobile learning behaviors between proficiency levels. Chen et al. (2024) demonstrated that gamified mobile learning strategies can enhance learning achievement and goal-setting skills. These studies collectively suggest that MALL approaches hold promise for improving language learning outcomes.

Willingness to Communicate

The concept of willingness to communicate (WTC) pertains to individuals' inclinations to engage in communication using their native language when given the choice. As articulated by Fathi et al. (2024), this concept extends to second language contexts, where it denotes a readiness to initiate discourse using the second or foreign language at a given time and with specific interlocutors. Fathi further delineates the factors contributing to WTC into two primary categories: situational influences, encompassing the desire to communicate in particular contexts, and enduring influences, which include motivational factors and self-esteem. Additionally, McCroskey and Baer (cited in Baker & MacIntyre, 2000) posit that an individual's personality significantly shapes their communication-related cognitions, suggesting that personality traits influence one's decision to initiate communication. Tai (2024) adds that WTC is subject to change over time as language learners gain more experience. Cao and Philp (2006) argue that WTC should be viewed as a situational variable that can vary across different contexts, emphasizing the independence of WTC in both native and second language communication. Lee and Liu (2022) identify various factors, such as motivation, social support, attitude, perceived communication competence, and communication anxiety, as direct and indirect influences on WTC. They introduce topic familiarity as an additional factor affecting WTC, proposing that greater familiarity with a topic correlates with increased willingness to communicate. Hence, a debate arises regarding whether WTC serves as an overarching term for motivation or if it represents a distinct component within motivation.

Studies explored factors influencing WTC in language learning. Ebadi and Ebadijalal (2019) showed that VR technology improved WTC and oral proficiency in EFL learners. Lee (2019) investigated WTC factors in digital environments, while Lee & Liu (2022) examined WTC fluctuations in online classes. Soyoof (2023) explored factors affecting WTC in Iranian EFL learners using digital tools. These studies suggest various influences on WTC in language learning contexts. In a mixed-methods study, Luan et al. (2024) suggested an online flipped learning approach based on digital storytelling (DST) that used mobile phones during the pandemic. They also looked into the methodology's effects on EFL learners' willingness to communicate (WTC) and how they perceived it. At the conclusion of the experiment, the quantitative data showed that the experimental group fared better in terms of WTC than the comparison group. The impact of this DST-based online flipped learning strategy in terms of increasing their confidence in speaking English and fostering more meaningful contact and collaboration with others was further supported by a thematic analysis of the

qualitative data.

Reactivity to Mistake

Over the past 25 years, researchers have extensively explored how different types of corrective feedback (CFs) contribute to learners' acquisition of a foreign or second language like English. Studies have sought to compare the effectiveness of recasts versus prompts across diverse age ranges, language proficiencies, and contextual settings (e.g., Gholami & Aliyari, 2016; Gooch et al., 2016; Lyster & Izquierdo, 2009; Rassaei, 2015). While errors can arise due to factors such as anxiety, the integration of mitigating technologies in classrooms can offer various forms of support to alleviate learners' anxiety levels.

Reactivity to mistakes serves as a crucial aspect of the learning process, indicating an individual's capacity to acknowledge errors, derive insights from them, and adapt their learning strategies accordingly. Within educational contexts, fostering reactivity to mistakes is vital for promoting continuous improvement and facilitating academic growth (Zhang et al., 2021). Notably, guided mobile learning approaches have proven effective in enhancing reactivity to mistakes through a range of mechanisms and strategies, thereby contributing to a more dynamic and adaptive learning environment. Thus, the exploration of corrective feedback and reactivity to mistakes intertwines, highlighting the importance of employing effective instructional methods to support learners' ongoing development and confidence in language learning (Sadeghi et al., 2020).

Studies explored mobile technology for reducing anxiety in language learning. Ebadijalal and Yousofi (2023) found that mobile peer feedback in the native language reduced anxiety and improved speaking skills in EFL learners. Mohammadi and Masoumi (2021) showed that mobile vocabulary learning did not increase social anxiety or loneliness. These findings suggest that mobile learning can be a useful tool to reduce anxiety and enhance language acquisition. In a study (Hashim et al., 2017), over a six-week period, participants accessed sixty American English idioms through a Telegram channel for MALL. A researcher-designed achievement test assessed vocabulary learning via mobile phones, while the Interaction Anxiousness Scale (IAS) (Leary, 1983) and UCLA Loneliness Scale version 3 (ULS) (Russell, 1996) measured social anxiety and loneliness, respectively. The results revealed no significant correlation between the variables, suggesting that MALL not only provides learners with flexibility in time and location but also minimizes potential interference from socially and emotionally affecting variables, such as social anxiety and loneliness, in the language learning process. Furthermore, the goal of Fathi et al.'s (2024) study was to investigate how an artificial intelligence platform on a mobile device affected the speaking abilities of EFL students in terms of lexicon, pronunciation, grammatical accuracy, speaking fluency, coherence, and WTC. The findings showed that interactive speaking activities mediated by mobile devices were more successful in enhancing the speaking abilities and WTC of EFL learners. There is still a clear knowledge vacuum about how MALL affects learners' response to errors in the setting of second language learning, despite the increasing corpus of research on MALL and its effects on several facets of language

acquisition. While studies have explored the general effectiveness of mobile technologies in reducing anxiety (Ebadijalal & Yousofi, 2023; Mohammadi & Masoumi, 2021), enhancing willingness to communicate (Luan et al., 2024), and improving language skills (Fathi et al., 2024), there is limited empirical evidence examining how mobile learning environments affect learners' ability to recognize, respond to, and learn from their errors. This gap is particularly significant as understanding the factors that enhance or hinder reactivity to mistakes could lead to more effective instructional strategies that support language learners' overall proficiency and confidence. Therefore, further research is needed to explore the impact of guided mobile-assisted task performance on learners' reactivity to mistakes and their WTC level. In terms of novelty, it can be stated that the guidance in guided mobile-assisted tasks enables innovation by providing a supportive environment within the mobile learning platform, which is especially important for learners sensitive to mistakes. Through innovative mobile interfaces, learners receive real-time feedback and prompts that help them recognize and correct mistakes constructively. In the context of this study, innovation also lies in reframing mistakes as part of the learning process. Traditional language learning often focuses on error avoidance, which can increase anxiety. By contrast, in the current study, guided mobile tasks seem to encourage risk-taking and help learners view mistakes as opportunities for improvement rather than as failures. It is supposed that it moves learners away from the fear of mistakes—common in traditional settings—and instead fosters a growth mindset. Based on the objectives of the study, the following research questions were formulated:

RQ1: Do guided and unguided mobile-assisted task performance have different effects on Iranian EFL learners' WTC?

RQ2: Do guided and unguided mobile-assisted task performance have different effects on Iranian EFL learners' reactivity to mistakes?

RQ3: What are the students' perceptions about the use of guided mobile-assisted language learning towards WTC and reactivity to mistakes?

Method

Participants

The design of this study is a quasi-experimental research with a pretest-posttest control group. "A typical experimental study usually uses comparisons or control groups to investigate research questions" (Mackey & Gass, 2011, p.146). The study population consisted of all of 200 intermediate EFL students at Zeytoon Language Institute, Tabriz, Iran. From among 200 learners, a sample of 72 intermediate-level Iranian EFL students (male and female) in the age range of 21-27 was selected based on a convenience sampling method. An Oxford Placement Test (OPT) was used to test and homogenize the participants' general English language proficiency at the beginning of the course. Finally, from 72 learners, 54 students were chosen based on their scores from the OPT, and they were divided into three groups: guided mobile-assisted task performance (GMATP), unguided mobile-assisted task performance (UnGMATP), and regular task performance (RTP). The reason for the low

number of students in the current study can go back to the nature of quasi-experimental studies and the ability to control most of the research's aspects. The participants were homogeneous in age and language proficiency at the time of data collection. In addition, they shared the same mother tongue, Turkish, but they were also fluent in Persian.

Materials and Instruments

A standardized test called the Oxford Placement Test (OPT) was selected to gauge language proficiency. The average administration duration for this 60-item test is 70 minutes. The selection process was guided by statistical principles to ensure that participants represented a relatively homogenous group in terms of language proficiency. Specifically, scores falling within one standard deviation (±1 SD) from the mean were chosen, as these scores indicated that the participants' language abilities were close to the average level. This approach was justified by the distribution of scores, which closely aligned with the normal distribution, minimizing the likelihood of selecting outliers that could skew the results. The test's reliability was estimated and reported to be .83, showing the test items' high level of internal consistency.

Willingness to Communicate Questionnaire

The WTC questionnaire was employed to determine EFL learners' WTC level. The questionnaire adopted by Gol et al. (2014) was used to assess EFL learners' WTC through 28 items. All the items presented in the form of 5-Likert Scale in each category as: 0= Never; 1 =Rarely; 2= Sometimes; 3= Often; 4= Almost always. The questionnaire was factor-analyzed, and the reliability index was reported as 0.73.

Reactivity to Mistake

The construct of reactivity to mistake is adapted from the perfectionism inventory developed by Stairs (2009), with 7 items. Item responses are on a 5-point Likert scale (1 = strongly disagree, 2 = somewhat disagree, 3 = neutral, 4 = somewhat agree, 5 = strongly agree). The reported Cronbach's alpha for reactivity to mistakes was .88.

Semi-structured Interview

A semi-structured interview was the last tool utilized in the present study to examine the participants' perspectives toward the employment of guided mobile learning, which outperformed the other groups in both WTC and reactivity to mistakes. Hence, to gain insights, the researcher encouraged students in the group to reflect on their overall perception of the instruction. This encompassed their preferences for the class and whether they would recommend it to others. Additionally, they were expected to provide rationales for their responses. Furthermore, participants were tasked with sharing their thoughts on the strengths and weaknesses of the instruction and offering suggestions for enhancements. Each student was interviewed individually, with their voices recorded for subsequent analysis and presentation. Notably, the students provided their responses in Farsi, which were then

translated into English and included as part of the study's qualitative data. To estimate the credibility of the interview questions, the researcher presented the information gathered from the interviewees and asked them to pay attention to each question, and the answers were given themselves to see whether there was any problem with or differences in the answers. The participants confirmed the accuracy of the data, so the interview's credibility was approved. For dependability, 20% of the interview results were re-checked by two of the researchers' colleagues who were familiar with the data analysis section. The inter-rater reliability results were reported to be .86.

Procedure

At the initiation of the study and in adherence to a general research ethics code, the research received approval from the Academic Affairs department of the university's language department. This ensured that students were well-informed about the research's objectives and the confidentiality of their personal information. It was crucial to ensure that both the university and the participants were aware of their right to remain anonymous. In the initial phase, two weeks before commencing the treatment, an OPT was administered to 72 EFL students to ascertain their homogeneity in terms of language proficiency. These participants were selected randomly from among six intact classes, including 200 intermediate-level students. This test was used to determine whether the 72 randomly selected participants exhibited uniform language proficiency. Following the analysis of the proficiency test results, 18 students were excluded from the study due to their exceptionally high or low scores, leaving a total of 54 learners who were then divided into three groups. Subsequently, in this phase, the learners in the groups completed two questionnaires of WTC and reactivity to mistakes with a designated time limit of 45 minutes. Following this pretest, the treatment phase commenced.

The researcher, as the instructor, taught three classes. The guided group received comprehensive instructions on how to use various ICT resources, starting with a broad introduction to online tools designed to support language learning. Emphasis was placed on how these resources could be used effectively to support both written and spoken language skills. By giving a clear overview of each tool's purpose, the instructor laid the groundwork for students to see ICT not just as supplementary aids but as essential tools for expanding their language abilities.

Next, students were trained specifically on thesaurus.com to support vocabulary expansion. This training was designed to help students understand the nuanced differences between similar words, providing them with a broader set of vocabulary choices for both speaking and writing. The instructor demonstrated how the tool could be used to find synonyms and enrich vocabulary, ensuring that students understood how to choose words more precisely. This process was intended to foster a habit of careful vocabulary selection that would not only expand their language repertoire but also improve the clarity and effectiveness of their communication. By focusing on vocabulary accuracy, thesaurus.com served as an ICT tool that supported students' innovation in self-directed vocabulary acquisition. In addition to dictionaries and thesauruses, the instructor introduced other language-learning apps, such as grammar checks, pronunciation guides, and language games, each designed to

support different aspects of language development. To help pupils generate more fluid and native-like language, instruction was given on how to use collocation dictionaries to discover which words naturally go together in English. This was essential to prevent awkward or inappropriate word combinations that would have obscured their meaning. They were also introduced to additional educational applications, such as grammar checks, pronunciation guides, and language games, that could support their language learning. Throughout the process, the instructor provided ongoing support to ensure that students understood how to use each tool effectively. Periodic check-ins allowed students to share any challenges or difficulties they faced with the ICT resources, and the instructor was able to provide further guidance or clarification as needed. These feedback sessions helped to reinforce the role of ICT as a supportive, adaptable resource in language learning and allowed the instructor to address any issues in real-time. The instructor made sure the pupils understood how to use these applications efficiently. This monitoring ensured that students felt confident in using these resources as a core part of their language-learning strategy.

The second group, the unguided group, was permitted to use their smartphone on their own and without any instruction. Moreover, they were free to install any application or use the internet and browse any sites that they themselves preferred. This group had no official education or coaching, just free rein to explore and use their iPhones. Based on their individual preferences or past experiences, the students in this group were free to select whatever language learning applications, reference tools, or other digital resources they wished. This might include any other useful tool they came upon, as well as well-known language learning applications like Duolingo and language translation software like Google Translate. They had unrestricted access to language forums, online dictionaries, information searches, and other instructional websites. Due to the lack of supervision in the current study, students were forced to choose and utilize these tools efficiently based only on their own judgment and past knowledge.

The regular task performance group, as the third group, had access to no source other than the teacher, peers, and their own knowledge. Their classroom was more traditional, with the instructor serving as the primary source of knowledge and direction. Students relied on the teacher's comprehensive explanations to understand new language concepts, which were often introduced through direct instruction, such as detailed grammar lessons, vocabulary building exercises, and pronunciation drills. For instance, the instructor explained verb tenses, provided examples on the board, and then assigned exercises from a textbook to reinforce the concept. Feedback was provided during and after class activities, such as reviewing written assignments or correcting spoken errors in real-time. Students engaged in collaborative activities like group discussions where they debated topics assigned by the teacher, peer evaluations where they reviewed and provided feedback on each other's written paragraphs, and joint problem-solving tasks such as completing fill-in-the-blank exercises together or crafting sentences using new vocabulary. These tasks encouraged interaction and mutual learning among peers. Importantly, students had to depend on their existing knowledge

and language proficiency to tackle assignments without external resources. For example, when tasked with writing a short essay, they relied solely on their previously learned vocabulary and grammar rules, without access to digital tools like online dictionaries or grammar checkers. The absence of ICT tools meant their exposure to innovative learning methods was limited, but this also fostered a deeper engagement with the material presented in class. This traditional approach emphasized the value of teacher-led instruction and peer collaboration as the cornerstone of their learning process, distinguishing their experience from the more resource-intensive methods employed by the other groups.

The students attended the classes for 10 sessions of 70 minutes. All the sessions were video recorded. It is worth noting that the study was conducted during a semester, and the treatment lasted for eight weeks (a total of 16 sessions). The study conducted twice-weekly teaching sessions that were centered on instructing using the teaching principles and methodologies that supported the guided and unguided mobile-assisted task performance. The study was administered during 16 sessions, one session for homogeneity, one session for pretest in WTC and reactivity to mistakes, the other for posttests, and three sessions for semi-structured interviews, and finally 10 sessions for the treatment. It seems that a 10-session treatment (each session 70 minutes) was enough to ensure the memory effect between pretest and posttest. The instructor was the same for both groups, but the difference lay in the material selection, teaching procedures, and strategies. During these sessions, the teacher talked about the students' favorite topics, and they had the opportunity to express themselves. Moreover, the participants' errors on pronunciation, collocation, grammar, and structure were corrected by explicit recasts (Farrokhi, 2005; Nassaji, 2009). Additionally, the participants' WTC and reactivity to mistakes were examined by observation during each session by the researcher as the teacher, via portfolio, interview, and stimulated recall at the end of each session. They were needed to watch the scripts of the recordings and answer the questions in the stimulated recall sessions. The stimulated recall sessions were held at the end of each session by one of the researchers' colleagues. After completion of the treatment, all groups were given the same questionnaires as posttests.

Data Analysis

The data were statistically analyzed by SPSS software (Version 22) to compare the scores obtained from the experimental and control groups. To this end, ANOVA (Analysis of Variance) was run to probe the differences among the groups and check how guided and unguided mobile instruction could affect the learners' WTC and their reactivity to mistakes. ANOVA was appropriate because it allows for the comparison of mean scores across multiple groups to determine whether there are statistically significant differences among them. To give more credit to the findings of this study, a semi-structured interview was also administered to know how students evaluate the effectiveness of the most effective method in improving their WTC and reactivity to mistakes. The researcher individually interviewed each student, capturing their voices for subsequent analysis and inclusion

in the presentation. These interviews were conducted in Farsi, and the responses were translated into English and incorporated into the study's qualitative data. The central constructs were subjected to thematic analysis, and the findings were presented as selected excerpts.

Results

Answer to the First Research Question

To investigate the effect of guided and unguided mobile-assisted task performance on Iranian EFL learners' WTC, a set of data analyses was run. Table 1 shows the descriptive statistics of WTC before and after the treatment.

Table 1.Descriptive Statistics of WTC Scores

	N	Minimum	Maximum	Mean	Std. Deviation		Variance	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	
GMATP Pretest	18	32.00	46.00	35.833	.3813	1.617	2.61	
UnGMATP Pretest	18	34.00	50.00	37.722	.4263	1.808	3.27	
RTP Pretest	18	33.00	49.00	34.888	.4912	2.083	4.34	
GMATP Posttest	18	65.00	112.00	97.911	.4235	1.976	4.05	
UnGMATP Posttest	18	53.00	86.00	73.364	.4415	2.705	3.99	
RTP Posttest	18	54.00	67.00	61.032	.3834	2.876	4.12	

Table 1 reveals that the mean scores of the groups in the pretest of WTC were somewhat similar, however, the mean of groups after the treatment changed with the mean of GMATP hitting the peak (M=97.9, SD=1.9). The "minimum" and "maximum" values in the provided dataset represent total scores for each group. These values reflect the aggregated performance of participants across all test items rather than scores for individual items. However, the differences among groups needed to be tested statistically; thus, the assumption of parametric test needed to be tested. One of the assumptions is that the data should be normally distributed. Based on the results, as all the significance levels were higher than 0.05, it can be concluded that the data is normally distributed. Again, the above-mentioned analyses were not enough for final conclusion to ensure the homogeneity or heterogeneity of the groups. So, there is a need for running a test of homogeneity of variances. The findings showed that since the p-value (.771) was higher than the significance level (.05), the assumption of the homogeneity of variances was also met. Thus, ANOVA can be conducted on posttest scores (Table 2).

Table 2. Results of ANOVA for WTC Scores

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.246	2	.120	.043	.000
Within Groups	173.833	51	2.783		
Total	174.548	53			

Since the p-value (.000) is lower than the significance level (.05), it can be concluded that the groups are not the same in WTC level after treatment, $F_{(2, 51)} = 2.78$, p=.000. Based on the mean comparisons, the mean score of the learners in the guided mobile instruction was higher than the other two groups, hence the effect of guided mobile-assisted task performance on Iranian EFL learners' WTC was approved.

Answer to the Second Research Question

To investigate the effect of guided and unguided mobile-assisted task performance on Iranian EFL learners' reactivity to mistakes, a set of data analyses was run. Before reporting the findings, it is worth noting that lower scores in the scale represented students' satisfaction with the teaching strategy in terms of reactivity to mistakes, since it was a sign and symbol of perfectionism. Table 3 shows the descriptive statistics of reactivity to mistakes before and after the treatment.

Table 3. Descriptive Statistics of Reactivity to Mistake Scores

	N	Minimum	Maximum	Mean		Std. Deviation	Variance	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	
GMATP Pretest	18	17.00	22.00	20.342	.5421	2.166	4.42	
UnGMATP Pretest	18	18.00	23.00	21.137	.4118	2.034	4.20	
RTP Pretest	18	19.00	22.00	20.042	.5467	3.221	5.10	
GMATP Posttest	18	12.00	19.00	15.033	.5996	1.796	4.48	
UnGMATP Posttest	18	16.00	21.00	19.671	.4789	1.405	3.32	
RTP Posttest	18	17.00	23.00	21.444	.5328	3.217	5.46	

As it is clear from the above table, the mean of groups after the treatment changed with the mean of GMATP hitting the peak (M=15, SD=1.7), followed by UnGMATP (M=19.6, SD=1.4). The "minimum" and "maximum" values in the dataset represent the total scores for each group, indicating the combined performance of participants across all test items rather than the scores for individual items. Table 4 indicates the results of ANOVA for the reactivity to mistakes.

Table 4. Results of One-way ANOVA for Reactivity to Mistake Scores

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	37.7	2	18134.3	39.4	.002
Within Groups	2145.43	51	46.026		
Total	22067.6	53			

Since the p-value (.002) is lower than the significance level (.05), it can be concluded that the groups are not the same in reactivity to mistake level after treatment, $F_{(2, 51)} =39.4$, p=.002. Based on the mean comparisons, the mean score of the learners in the guided mobile instruction was higher than the other two groups; the effect of guided mobile-assisted task performance on Iranian EFL learners' reactivity to mistakes was confirmed.

Answer to the Third Research Question

The analysis of the data indicates that guided mobile-assisted language learning had a significant positive impact on Iranian EFL learners' WTC and their reactivity to mistakes. The statistical results reveal that there were significant differences in WTC levels among the three groups after the treatment. Moreover, the mean score of learners in the guided mobile instruction group after the treatment was notably higher than that of the other two groups, confirming that guided mobile-assisted task performance effectively enhanced learners' WTC and resulted in improved learners' reactivity to mistakes, making learners more responsive and adaptable in correcting errors during the learning process. These extracts were selected based on their relevance to the core elements of the guided mobile learning experience, as identified in the study's objectives.

In terms of students' perceptions (the third research question) towards WTC and reactivity to mistakes, the guided mobile learning approach was viewed favorably for several reasons. Learners appreciated the flexibility and accessibility of the mobile platform, as it allowed them to access learning materials and participate in activities anytime and anywhere (Extract 1: "The mobile platform allowed me to study wherever I wanted, and I didn't feel limited by time or place. This made it easier to stay connected to the learning process."). This adaptability was crucial in increasing their engagement with the material. Furthermore, the engagement level was significantly elevated due to the interactive elements such as quizzes and multimedia, which made learning more dynamic and interesting (Extract 2: "The interactive parts, like quizzes and videos, made the lessons fun and engaging. It felt more like playing a game than studying."). The learners also valued the personalization aspect, as they could progress at their own pace and receive feedback tailored to their individual needs (Extract 3: "I liked that I could work at my own speed and get feedback that was specific to my answers. It really helped me learn better."). Moreover, the platform fostered better communication and reflection skills, enabling learners to develop their communication abilities while also engaging in self-reflection (Extract 4: "Using the platform made me think more about how I communicate and gave me chances to reflect on my performance."). The enjoyment factor, driven by gamified elements, added to their motivation and made the learning process enjoyable (Extract 5: "The games and challenges kept me motivated. I looked forward to each session because it was fun.").

However, learners also pointed out some weaknesses of the guided mobile-assisted learning approach. Technical challenges such as connectivity issues and platform lags occasionally disrupted the learning process, causing frustration (Extract 6: "Sometimes the platform would freeze, or the connection would drop. It was frustrating when this happened in the middle of an activity."). Another concern was the limited interaction with peers and instructors, which some learners felt was a drawback compared to traditional classroom settings that offer more social engagement (Extract 7: "I missed interacting with my classmates and teacher. It felt a bit isolating at times."). Additionally, mobile devices sometimes served as a source of distraction, detracting from their focus during learning activities. (Extract 8: "It was hard to stay focused because there were so many other apps and notifications on my phone.")

Furthermore, learners in this group reported positive perceptions of the platform's impact on their reactivity to mistakes. They particularly appreciated the immediate feedback provided by the platform, which allowed them to quickly identify and correct errors (Extract 9: "Getting feedback right away helped me understand my mistakes and fix them quickly."). This instant feedback was instrumental in promoting a safe learning environment, where learners felt less intimidated and more comfortable making and learning from mistakes, compared to traditional classroom settings (Extract 10: "I felt more comfortable making mistakes because I knew I would get instant feedback. It felt safer than in a traditional classroom."). Additionally, the ability to engage in self-paced learning under guidance enabled them to revisit and reflect on their mistakes at their own convenience, further reinforcing their learning (Extract 11: "I liked being able to go back and review my mistakes whenever I wanted. It gave me more confidence

to keep trying."). In other words, guided mobile-assisted language learning proved to be an effective tool in enhancing both WTC and reactivity to mistakes among Iranian EFL learners, as demonstrated by the statistical outcomes and the positive perceptions reported by the learners.

Discussion

The present study aimed to investigate the differential effects of guided and unguided mobile-assisted task performance on Iranian EFL learners' WTC. Our findings reveal significant differences in WTC levels post-treatment among the groups, indicating that the type of mobile-assisted task performance indeed influences learners' willingness to communicate in English. Specifically, the mean WTC score of learners in the guided mobile instruction group was notably higher than that of the other two groups, suggesting a positive effect of guided mobile-assisted task performance on Iranian EFL learners' WTC.

The superior performance of the guided mobile group can be attributed to the structured and supportive nature of the instruction. The guided tasks provided learners with clear objectives, scaffolding, and continuous feedback, which are crucial for building confidence and engagement in communicative tasks. These structured elements helped reduce ambiguity and provided learners with a sense of direction, thereby enhancing their willingness to participate in communication. This aligns with theories of scaffolding and guided learning, which emphasize the importance of structured support in fostering learner autonomy and confidence (Ebadi & Ebadijalal, 2019; Nugroho, 2021).

These results align with prior research emphasizing the importance of guided instruction and structured learning experiences in enhancing language learners' motivation and confidence to communicate (Ebadi & Ebadijalal, 2019; Nugroho, 2021). The guided nature of the mobile-assisted tasks likely provided learners with clear objectives, scaffolding, and feedback, which may have contributed to increased engagement and self-efficacy in language communication. This finding underscores the pedagogical significance of incorporating structured guidance and support mechanisms in mobile-assisted language learning environments to foster learners' WTC. Guided mobile learning platforms often provide timely, tailored feedback, addressing individual learner needs and goals. This personalized approach can significantly boost engagement and motivation. The learners showed interest in guided mobile learning, which the results are in harmony with the results of Huang et al. (2016), who found that mobile devices positively impact EFL learners' willingness to communicate (WTC), particularly among those with lower proficiency levels.

Moreover, our study contributes to the growing body of literature on the efficacy of MALL interventions in promoting communicative competence among EFL learners. While previous research has explored the benefits of MALL in improving language skills (Nugroho, 2021), our study extends this inquiry to investigate its impact on learners' willingness to communicate—a crucial aspect of language acquisition often influenced by various socio-affective factors (Lee, 2019; Soyoof, 2023). By demonstrating the positive effect of guided mobile-assisted tasks on WTC, our findings highlight the potential of MALL interventions in addressing learners' affective needs and facilitating meaningful language interactions.

The findings of the current study add to the growing body of research highlighting the efficacy of integrating technology into foreign language instruction to address learners' concerns or anxiety about making mistakes. In line with previous research by Ebadijalal and Yousofi (2023), which emphasized the benefits of mobile-assisted oral peer feedback (OPF) in reducing foreign language anxiety (FLA), our study underscores the significance of guided mobile learning in mitigating learners' reactivity to mistakes. Specifically, our research demonstrates that the structured approach provided by guided mobile learning positively impacts learners' reactions to mistakes, potentially alleviating anxiety associated with language learning.

Moreover, the utilization of technology, as seen in both studies, facilitates learners' engagement and self-directed performance, contributing to improvements in various aspects of language acquisition, including oral proficiency, self-confidence, and willingness to communicate. The findings align with the broader literature advocating for the incorporation of technology-enhanced language learning environments to create dynamic and interactive opportunities for learners to practice and receive feedback.

The present study employed guided mobile learning, which furnished learners with well-defined activities, unambiguous objectives, and continuous assistance. This methodical technique probably made students feel less confused or hesitant, which increased their confidence and willingness to speak. Because the unguided group did not receive this organized support, their involvement may have been less successful, and their WTC may have been lower. Interactive components like multimedia and quizzes were included in the guided mobile learning strategy, and these were thought to be interesting and inspiring. These elements probably enhanced the learning process and made it more engaging, which inspired students to engage in expressive activities. It's possible that the unguided and control groups' lower WTC levels were caused by the lack of these captivating components. Furthermore, guided mobile learning offered flexibility and accessibility, as seen during observations and video-recording sessions, allowing learners to access materials and participate in activities at their convenience. This flexibility likely reduced barriers to communication and encouraged more frequent engagement with the language. Without the structured guidance, the unguided group may not have fully utilized this flexibility, leading to less frequent and spontaneous communication.

Interestingly, while our study focused on reactivity to mistakes, Mohammadi and Masoumi's (2021) research highlighted the broader benefits of MALL in providing flexibility and minimizing interference from social and emotional variables such as social anxiety and loneliness. Although their study did not find a significant correlation between learning English vocabulary via mobile phones and social anxiety or loneliness levels, it underscores the potential of technology to create a conducive learning environment that caters to diverse learner needs. In other words, the integration of guided mobile learning offers a promising avenue for addressing learners' reactivity to mistakes and enhancing their overall language learning experience. By leveraging technology to provide structured support and feedback, educators can foster a more supportive and empowering learning environment that encourages risk-taking and facilitates

language acquisition. The ability of the guided mobile learning environment to respond quickly and individually to errors is one factor supporting its efficacy. With this immediate feedback, students were able to spot and fix faults fast, which improved their ability to respond appropriately to mistakes and reinforced the use of acceptable language. This real-time input was absent from the unguided group, though, and it may have resulted in poorer responsiveness and less successful error correction. Additionally, guided mobile learning provided a safe, encouraging environment where students could make mistakes and work through them without worrying about being judged by others. Because they felt safe and secure enough to try new things with language in a non-threatening setting, students were inspired to take chances and explore with language. The unguided and control groups may not have had the same level of psychological safety, which could have contributed to their lower reactivity to mistakes. Moreover, the ability to revisit and reflect on mistakes at one's own pace was a key feature of the guided mobile learning approach. Learners could review feedback and apply corrections over time, leading to more effective learning from their errors. This self-paced learning process allowed for deeper understanding and better retention of corrections. The unguided group, without structured guidance and reflection time, seemed not have had the same opportunities for effective error correction.

It seems that creating a safe environment in mobile learning settings can help learners view mistakes as opportunities for growth rather than threats to their competence, thereby reducing fear and hesitation. Research indicates that when learners are supported encouragingly and safely, mistakes can stimulate complex thinking, promote further education and growth, and lead to deeper understanding (Moen & McAllister, 2019). Additionally, fostering a culture that welcomes mistakes can enhance learning outcomes. Establishing a classroom culture where students experience psychological safety allows them to make mistakes without fear of shame or humiliation, thereby promoting a more effective learning environment. Furthermore, reconceptualizing mistakes as valuable learning opportunities can be achieved through short in-action debriefing and concurrent feedback moments (Miller & Cuevas, 2017). The context of guided mobile learning seems to emphasize the importance of viewing mistakes as precious learning opportunities, which can lead to improved learning experiences. In other words, creating a safe and supportive environment in mobile learning settings enables learners to reinterpret mistakes as opportunities for growth, thereby reducing fear and hesitation.

The findings obtained from the quantitative data were approved by the qualitative data (research question three). The qualitative data from the semi-structured interviews enriches the quantitative findings by offering an in-depth exploration of the strengths and weaknesses of GML. It helps explain how features of the GML approach, such as immediate feedback, flexibility, and the use of digital tools, contribute to improved WTC and reactivity to mistakes. Furthermore, the interview findings address the challenges that could impact the effectiveness of GML, providing a more comprehensive understanding of its impact on learners' language learning experiences. The results of semi-structured interview showed that guided mobile learning approach boasts various strengths, including its flexibility (Extract 12: "I love how I can learn whenever I want—whether it's during a break at work or while waiting for a friend. It

makes learning feel less stressful."), accessibility, interactive content, personalized learning experiences, and fostering enhanced communication and reflection in an enjoyable atmosphere. Nonetheless, it also exhibits weaknesses such as technical hurdles (Extract 13: "Sometimes the app glitches, and I can't access certain parts of the lesson. It's frustrating when that happens."), limited interaction, and potential distractions (Extract 14: "The app works well most of the time, but occasionally, it freezes or the audio doesn't work, which interrupts my learning."). Despite these limitations, the approach effectively encourages willingness to communicate by offering comfort and privacy, asynchronous communication channels, and improved access to resources. Furthermore, it enhances reactivity to mistakes by providing immediate feedback, establishing a secure learning environment, and enabling self-paced learning. In summary, despite encountering challenges, guided mobile learning remains a valuable tool for promoting active engagement and effective learning. It seems that by employing digital tools like thesauruses, collocation dictionaries, grammar applications, and pronunciation guides, the guided mobile learning approach goes beyond traditional learning methods to encourage independent language use and critical self-assessment. This innovative use of ICT aligns with contemporary trends in language pedagogy, where digital resources are increasingly recognized as facilitators of learner autonomy, engagement, and personalized learning experiences. The structured use of ICT tools within this approach represents a form of pedagogical innovation that enables learners to interact with language resources purposefully and practically.

Conclusion

In conclusion, this study highlights the role of ICT as a transformative tool in enhancing language learning outcomes, particularly through the use of guided mobile-assisted task performance. The results revealed significant differences in both WTC levels and reactivity to mistakes among the groups post-treatment. Specifically, learners in the guided mobile instruction group demonstrated higher WTC levels and lower reactivity to mistakes compared to the other groups. These findings suggest that guided mobile-assisted task performance positively influences Iranian EFL learners' WTC and mitigates their reactivity to mistakes, highlighting the importance of structured guidance in language learning activities conducted via mobile devices. Overall, our study underscores the effectiveness of incorporating guided mobile learning strategies to enhance language learners' communication skills and foster a supportive learning environment conducive to risk-taking and growth. Besides, the alignment between the quantitative and qualitative data underscores the effectiveness of the guided mobile learning approach in addressing both WTC and concerns regarding mistakes among EFL learners. The results of the semi-structured interviews provide additional insight into the positive impact of guided mobile learning on learners' communication skills and confidence levels. These findings suggest that structured ICT-based interventions, such as guided mobile learning, positively influence Iranian EFL learners' WTC and mitigate their reactivity to mistakes. This highlights the importance of integrating innovative, technology-supported guidance in language learning activities conducted via mobile devices, where learners benefit from accessible, interactive, and autonomous learning resources.

The findings of this study offer several pedagogical implications and recommendations for educators, curriculum developers, and teacher training. Educators can design and implement effective MALL interventions by incorporating structured guidance, ensuring that mobile-assisted tasks are scaffolded with clear instructions, progress monitoring, and immediate feedback mechanisms to boost learners' confidence and responsiveness to mistakes. They should focus on interactivity by integrating multimedia, gamified elements, and collaborative tasks into mobile platforms to sustain engagement and motivation. Additionally, promoting reflection and autonomy by encouraging learners to reflect on their errors and progress through self-paced activities can foster independent learning habits.

For curriculum developers, integrating mobile learning into instructional design requires the development of adaptable content tailored to diverse learner needs, considering varying proficiency levels and learning styles. Real-world tasks should be embedded into mobile-based materials, incorporating authentic, context-based activities that align with learners' communication goals and everyday language use. Prioritizing accessibility is also crucial, ensuring that mobile learning resources are user-friendly and compatible with a range of devices and connectivity conditions to maximize their reach and usability.

Teacher training and professional development are essential for the successful implementation of guided mobile learning strategies. Teachers need training in mobile pedagogy through workshops and sessions on best practices for integrating mobile technology into language teaching. Developing digital literacy by equipping teachers with the technical skills necessary to navigate and troubleshoot mobile learning platforms is equally important. Furthermore, fostering reflective practices by encouraging teachers to evaluate the effectiveness of mobile-assisted learning interventions and adapt them based on learner feedback and outcomes will ensure continuous improvement and alignment with learners' needs. These strategies collectively underscore the potential of guided mobile-assisted learning to transform language education and enhance learner outcomes.

Despite the promising results, this study is not without limitations. First, the sample size, while adequate for detecting significant differences, was relatively small and limited to Iranian EFL learners, which may affect the generalizability of the findings to other contexts or larger populations. Second, technical issues, such as intermittent internet connectivity and device compatibility, posed challenges during the implementation of mobile-assisted tasks, which could have impacted learners' engagement and performance. Third, reduced social interaction in the guided mobile learning group was noted, potentially limiting opportunities for collaborative learning and peer feedback. These factors highlight areas for refinement and further exploration in future research. Moving forward, educators and researchers should explore ways to address the limitations identified in this study, such as technical issues and reduced social interaction. Collaborative mobile tasks and hybrid learning models may offer solutions to these challenges. Additionally, further investigation into the long-term effects of guided mobile learning on learners' WTC and reactivity to mistakes could provide deeper insights into its sustained benefits. By adopting these strategies, educators can harness the potential of ICT to transform language learning

experiences, creating environments that are engaging, adaptive, and conducive to growth in communication skills and learner autonomy.

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