

ORIGINAL ARTICLE

ELT Students' Perceptions Toward Mobile-Assisted Language Learning (MALL): Exploring its Effects on Motivation and Learner Autonomy

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Conflict of Interest

No conflict of interest is present in the conduction or the reporting of this study.

Note

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ABSTRACT

The current study investigated English Language Teaching (ELT) Department students' perceptions toward Mobile-Assisted Language Learning (MALL) and how MALL contributes to their perceptions of motivation and learner autonomy. 110 students who were enrolled in an English Language Teaching program at a university participated in the study. The study adopted a mixed-method design in which data were collected through an online questionnaire and written interview questions. Descriptive statistics were used to get the overall picture of the learners' perceptions of MALL. ANOVA was conducted to see if there were any significant differences among the four grades of ELT students, and a chi-square test was conducted to compare the perceptions of autonomy and motivation between the students who claimed to use mobile applications for language learning and those who claimed they did not. The written interview questions were examined using the content analysis method. The results of the study indicated that the students generally had positive opinions about using mobile applications for language learning purposes. Another interesting finding of the study was that the 1st-grade ELT students had more negative perceptions toward MALL compared to those of other grades. Finally, there were statistically no significant differences in terms of their perceptions of learner autonomy and motivation between the students who used mobile language learning applications and those who did not.

Keywords: Mobile-assisted language learning, motivation, higher education, Self-determination theory

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INTRODUCTION

The rapid developments in information and communication technologies (ICT) have attached significance to the use of computers and mobile devices in language learning. The concept of mobile learning (m-learning) has gained popularity with the introduction of mobile devices such as portable digital assistants (PDAs), smartphones, tablets, laptops, and other devices. Language learning has entered a new era with the constant development of mobile applications that can be used through mobile phones. Along with this change, ongoing developments in mobile devices and constant shifts in trends have made many scholars, educators, and learners explore the use of mobile devices in language learning and teaching. M-Learning has been demonstrated to be highly beneficial in a variety of educational settings, including independent learning (Bull & Reid, 2004) and lifelong learning (Attewell & Savill-Smith, 2004).

After the term “m-learning” emerged, its adaptation into the language learning has been referred as Mobile-Assisted Language Learning (MALL) since then (Kim & Lee, 2016). This concept has been used to describe the language learning processes which benefit from mobile technology advancements. In the 21st century, mobile devices play an important role in the everyday lives of students and teachers, which implies that learning English on mobile phones is no longer a novelty for English as a Foreign Language (EFL) learners (Hsu, 2013). Furthermore, Traxler (2007) states that improvements in mobile technology and their implications for educational environments have altered the way people conceptualize learning.

Having positive attitudes toward language learning can increase learners’ motivation, which leads to better language learning outcomes (Merisuo-Storm, 2007). As a matter of fact, affective factors such as attitude, orientation, anxiety, and motivation have proven to be at least as significant as language aptitude in predicting L2 achievement (Gardner, 1985). Dörnyei and Otto (1998, p. 65) defined the term motivation as: “the dynamically changing cumulative arousal in a person that initiates, directs, coordinates, amplifies, terminates, and evaluates the cognitive and motor processes whereby initial wishes and desires are selected, prioritized, operationalized and (successfully or unsuccessfully) acted out”.

The term learner autonomy was defined by Holec (1981, p.3) as: “To take charge of one’s learning is to have, and to hold, the responsibility for all the decisions concerning all aspects of this learning, i.e.: determining the objectives; defining the contents and progressions; selecting methods and techniques to be used; monitoring the procedure of acquisition properly speaking (rhythm, time, place, etc.); evaluating what has been acquired”. Previous research (Dafei, 2007; Lamb, 2012; Liu, 2015; Yagcioglu, 2015) has shown that although learner autonomy and motivation are the terms that differ from each other, they are highly related. In this respect, it is believed that MALL can motivate language learners to become autonomous learners, and eventually help them achieve effective language learning outcomes.

Apart from learner autonomy and motivation, there is also another important concept which was first proposed by Deci and Ryan (1985) as the concept of Self-Determination Theory (SDT). This is a theory that focuses on human motivation and its sources, as well as the effects of the environment on motivation. Self-determined people take charge of their lives and make decisions for themselves, defining their own goals and doing whatever it takes to achieve them without the help of others (Deci & Ryan, 1985). As mobile devices play a big part in our everyday lives, using them may help language learners become more self-determined individuals during their language learning process.

Many studies regarding the use of MALL focused on vocabulary learning (Cavus & Ibrahim, 2009; Chen & Chung 2008; Zhang, Song & Burston, 2011) and perceptions about MALL (Khan et al., 2018). In addition, there are some studies conducted to investigate the role of MALL in learner autonomy and motivation (Ardi, 2017; Nasr & Abbas, 2018). Since



MALL is a recent approach used in language learning and it is open to constant developments and changes, there is a need to investigate further into how it affects language learners' language development. To the researchers' knowledge, there are a very limited number of research studies focusing on the role of mobile technology in learner autonomy and motivation using self-determination theory. Thus, the purpose of this study is to investigate the ELT students' perceptions of MALL in relation to motivation and learner autonomy. The study aims to answer the following research questions:

1. What are the participating ELT students' perceptions of using mobile applications for learning English?
2. Is there any significant relationship between the use of mobile applications, and motivation and autonomy?

LITERATURE REVIEW

Mobile-Assisted Language Learning (MALL)

Learning a foreign language has changed not only in terms of the reasons for learning but also the methods of doing so. The media, particularly its availability on mobile phones, is probably the most significant factor in this change. Various mobile applications are very rewarding since they provide visual items that help support visual learning (Al-Ali, 2014). Since learning a foreign language simply requires more than lexical items, sentences, and grammar rules, Internet and computers can provide language learners with the necessary help they need (Monica-Ariana & Anamaria-Mirabela, 2014). As English is adopted as a common language in many genres, being exposed to a great amount of English vocabulary items in media texts on the Internet is very common (Berardo, 2006). By just clicking on their mobile phones, students are exposed to a variety of media material. Popular culture is easily available to language learners and teachers, regardless of geographical barriers, individuals, items, or language. Language learners need to learn English more than ever, thanks to the motivation of media usage and the ability to follow the world (Coyle, 2006).

Mobile learning is a type of learning that emerged with the combination of mobile informatics and e-learning. It allows for social interaction and creates a dynamic atmosphere while supporting learners (Korucu & Alkan, 2011). Mobile learning can be used to support traditional learning (Wang, 2004) as well as distance learning (Derouin et al., 2005). Early definitions of mobile learning focused on the mobility of technology, defining it as any educational setting in which handheld or palmtop devices are the exclusive technologies (Traxler, 2005). Also, it was defined as "learning across multiple contexts, through social and content interactions, using personal electronic devices" (Crompton, 2013, p. 4). Learners can use mobile technology to help them when needed and in ways that fit into their lifestyles. Designing intentionally for spontaneous and informal learning is more difficult, yet mobile and wireless technologies do provide affordances that enable various kinds of learning (Kukulka-Hulme, 2009).

To name a few of the recent studies conducted on MALL, Rashid et al. (2019) investigated how an interactive online tool Padlet could be used to increase collaborative writing in a language class. A total of 87 students taking a language course in a public university participated in the study. The study's purpose was to develop students' language and communication skills, raise motivation, reduce anxiety, and encourage them to become autonomous learners. Throughout the semester, several tasks were implemented using Padlet. The students' comments and feedback, which were collected via a questionnaire, were analyzed. According to the findings, Padlet engaged students to participate in class activities, reduced anxiety, encouraged interaction among classmates, and enhanced language accuracy through peer learning.

In another study that investigated Turkish university students' attitudes toward mobile technologies, a scale called

"An English Language Learning by Mobile Technologies Attitude Scale" was developed (Uzunboylu et al., 2014). The results of this study showed that the students had positive attitudes toward the use of mobile devices in language lessons. Additionally, it was revealed that the students' departments and grades did not vary when using mobile technologies to learn English.

As for some other previous studies on motivation and autonomy related to MALL, MALL was found to be effective in increasing learners' autonomy and collaboration (Cho, 2009; Lee, 2010). Kiernan and Aizawa (2004) investigated the effects of mobile phones on task-based language learning. Their findings showed that MALL helped in promoting L2 acquisition and making learners more focused on meaning. Nevertheless, not all studies reported positive results for MALL in relation to motivation and autonomy. For instance, Thornton and Houser (2005) reported that the small screen sizes of mobile phones might hinder the implementation of MALL effectively. Stockwell (2008) noted that the cost of mobile phones might discourage learners and teachers from using MALL in class. Chartrand (2016) stated that mobile devices can be distracting to learners and technical problems might happen. To sum up, although MALL may have many advantages for learners, it might also have some negative effects on them in terms of motivation and autonomy.

Self-Determination Theory (SDT), Motivation and Autonomy in Language Learning

In 1985, Deci and Ryan developed the Self Determination Theory (SDT), which is a macro motivation theory that focuses on human motivation and its sources, as well as the effects of the environment on human motivation. They claim that every human being is born with the desire to grow and evolve into a better version of themselves. According to this theory, self-determined people take responsibility for their actions and make decisions for themselves, defining their own goals and doing whatever it takes to achieve them without the help of others. In a similar vein, Deci and Ryan (1985) state that every human being has three basic needs to be self-determined. These needs are; (1) competence, which refers to the need to feel that the task is achievable, (2) autonomy, which refers to having a voice and choice about the events happening around one, and (3) relatedness, which refers to feeling a bound to the environment that one is in.

According to SDT, there are different types of motivations on a self-determination continuum, with "Intrinsic Motivation" on one end and "Amotivation" on the other, which is the lack of any motivation. According to Deci and Ryan (1985), intrinsic motivation stems from the innate desire for competence. They suggest that when people are given the choice to engage in a particular activity, they will seek out conditions where they can overcome the challenges presented by that activity. They gain confidence in their talents thanks to their efforts to overcome these challenges. Extrinsic motivation, in contrast to intrinsic motivation, views an activity as a tool to reach a goal, such as earning a reward or avoiding a punishment. Deci and Ryan (1985) identified different types of extrinsic motivation, which are external regulation, introjected regulation, identified regulation, and integrated regulation. Based on the individual's behavior and internalization of the self-concept, these types of extrinsic motivation show varying degrees of self-determination.

Autonomy and motivation are stated to be crucial in foreign language learning. Autonomy is defined as taking control of one's own learning (Benson, 2001). Motivation, on the other hand, refers to a set of choices and efforts that people make to reach their goals (Ryan & Deci, 2000; Igoudin, 2008; Lightbrown & Spada, 2006). Since foreign language education has adopted a learner-centered approach recently (Sims, 2012), it is important for learners to be more autonomous in managing their own learning goals and strategies. Autonomous learners are regarded to be more responsible for their learning and motivation helps them to maintain interest in language learning (Adara, 2020). Also, Liu (2015) notes that autonomous learners tend to be more self-determined and motivated learners apply various learning



strategies (Lan & Oxford, 2003). In accordance with all the above-mentioned studies, it could be stated that autonomy, motivation, and self-determination are related to each other in the language learning process.

The correlation between autonomy and motivation has been investigated by many previous studies. Both autonomy and motivation were found to predict success in language learning. Several studies demonstrated how motivation could be regarded as the main predictor of success in language learning (Gömlüksiz, 2001; Zhang et al., 2013). Autonomy, on the other hand, was found to be important especially for teaching and learning English for specific purposes (Ajideh, 2009). Autonomy was also identified as a basic need that can contribute to learners' intrinsic motivation (Spratt et al., 2002). Also, Ryan and Deci (2000) noted that learners need to feel autonomous to develop their intrinsic motivation. In this vein, it could be claimed that autonomous learners may be more motivated to learn a foreign language since autonomy and motivation correlate with each other.

As previously mentioned, there are a very limited number of research studies focusing on the role of mobile technology in learner autonomy and motivation using self-determination theory. Most of the previous studies were conducted with EFL learners but not with the students studying at the ELT Department. Thus, the purpose of this study is to investigate the ELT students' perceptions of MALL in relation to motivation and learner autonomy.

METHODOLOGY

Participants

This study was conducted at the Faculty of Education of a state university in Türkiye. The participants of the study were students who were enrolled in English Language Teaching Department to become English teachers. A total number of 110 students (76 female and 34 male) volunteered to participate in this study. Among these participants, 30 of them were freshmen, 29 were sophomores, another 29 were juniors and 22 of them were seniors in the English Language Teaching program. The participants were chosen via convenience sampling due to the availability of the participants and as this sampling type allows researchers to gather data more quickly for analysis (Kivunja, 2015). The average age of the participants was 21 years old. Among the 110 participants who volunteered to answer the questionnaire, 55 of them also volunteered to answer the open-ended questions.

Data Collection

In this study, both quantitative and qualitative data collection tools were used. An online questionnaire that consisted of three parts (Appendix A), and six written interview questions (Appendix B) were used to collect data. A total of 110 students agreed to fill out the online questionnaire, and a total of 55 students volunteered to answer the written interview questions. The first part of the questionnaire included the items from the "Scale of Acceptance of Mobile Learning Tools" developed by Özer (2017) in the Turkish context to investigate the learners' perceptions of language learning through mobile devices. It was a Five-point Likert-type scale, which goes from 1 (Strongly Disagree) to 5 (Strongly Agree). There were 19 items in total, they were written in Turkish and were presented in Turkish in the questionnaire as well. Then, for the research article, these items were translated from Turkish into English. The second part consisted of the items from the "Learner Autonomy Questionnaire" adapted by Üstünlüoğlu (2009) in the Turkish context again to look further into the students' autonomy levels and make comparisons. In this questionnaire, there were 3 sections under the subtitles of "Responsibilities", "Abilities" and "Activities". The first section included 10 items for participants to mark who they thought was responsible for the items: Yours, Your Teachers', or Both. In the second section, five-point Likert scale was used to

understand their opinions about their abilities, which goes from 1 (Very Poor) to 5 (Very Good). The third section also used five-point Likert-scale which goes from 1 (Never) to 5 (Always) to look into the participants' learning actions. Lastly, the items from the "Language Learning Orientation Scale-Intrinsic Motivation, Extrinsic Motivation, and Amotivation Subscales" developed in the Canadian context (Noels et al., 2003) were used to investigate the learners' current motivation levels for comparative purposes. To ensure the diversity of participants, data were collected from all grades in the ELT program with similar number of participants in the current study. As for the Cronbach alpha coefficient of internal consistency for the above-mentioned scales and sub-scales, co-efficient values had already been calculated by the researchers who originally developed them, and these values showed that they were reliable and had good internal consistency.

In addition to the above-mentioned scales and questionnaire, semi-structured interview questions were prepared by the researchers since these types of open-ended questions are flexible in nature and allow the participants to discuss the topics of interest in more detail; thus, help explore the participants' experiences, beliefs, and thoughts more deeply. The written interview questions were formed based on the relevant literature review and they consisted of six questions. Four of them aimed to investigate learners' perceptions toward the use of mobile applications for language learning, one question aimed to investigate participants' perceptions of their own autonomy level and the last one aimed to investigate learners' motivation level. These questions were written in Turkish to make the participants feel at ease while they were explaining their thoughts and answering these questions. Afterwards, these questions and the answers given by the participants were translated into English by the researchers to present them in the current paper. Translation of the questions was completed using the back-translation process. Back translation was carried out in accordance with the procedures identified by Brislin's (1970) back-translation model. Back-translation of the questions was also compared to detect any discrepancies and to check whether the questions were identical to the original questions prepared in Turkish.

Data Analysis

A mixed-method design was adopted while analyzing the data collected for this study. Statistical techniques were employed to analyze the quantitative data gathered from the scales and questionnaire. To get the overall picture of learners' perceptions of using mobile applications, descriptive statistics were used. Through descriptive statistics, the frequencies and percentages were calculated. Also, ANOVA was conducted to see if there were any statistical differences across the four grades of ELT students in terms of their perceptions of using MALL. To compare the autonomy and motivation levels of the students who claimed they were using mobile applications for language learning and those who claimed they were not, chi-square test was run. Lastly, the answers given to the written interview questions were analyzed through the content analysis method. The term "content analysis" refers to a variety of techniques for making inferences by systematically and objectively identifying the distinctive features of messages (Holsti, 1968). During this process, the researchers first examined the data to detect the keywords related to the topic of the study. After this first step, they developed categories to identify the emerging themes. The analysis process continued with the revision of the data and then the selection of the final categories. After this selection, these final categories were analyzed and interpreted by the researchers.

RESULTS

Learners' Perceptions of Using MALL

The first item on the online questionnaire was the question "Are you using mobile applications for your language development?". According to their answers, 68 participants (%61,8) claimed that they use mobile applications for language learning, while 42 of them (%38,2) claimed they do not. Then, the answers to the interview questions were analyzed to investigate further into the learners' perceptions of using MALL. Table 1 shows the answers given to the four written interview questions with their frequencies and percentages. "Others" refers to the other possible options that were not specifically stated in the questionnaire. In the first question, 17 students stated that they "rarely" (f=17, %30,91) used mobile applications for language learning. This answer was followed closely by "always" (f=16, %29,09). For the second question, students stated that they found MALL tools "very" (f=33, %60,01) beneficial. When the students were asked the third question, majority of the students stated that they found MALL tools beneficial mostly for "vocabulary" (f=29, %43,28) learning purposes, followed by "grammar" (f=14, %20,89), "speaking" (f=10, %14,92), "listening" (f=8, %11,94) "writing" (f=3, %4,47) and "reading" (f=3, %4,47), respectively. When the answers to the fourth question were analyzed, it is observed that most of the students thought positively (f=44, %80,00) about the future of MALL.

Table 1. Frequency and percentages of students' answers to the interview questions

1. How often did/do you use Mobile Assisted Language Learning tools?		
	f	%
Always	16	29,09
Sometimes	7	12,73
Rarely	17	30,91
Never	7	12,73
Others	8	14,54
2. To what degree do you find Mobile Assisted Language Learning tools beneficial?		
	f	%
Very	33	60,01
Good enough	6	10,91
Not at all	4	7,27
Others	12	21,81
3. Think about the four language skills, grammar knowledge, and vocabulary knowledge. Which language skill or knowledge do you think the mobile applications help you to develop the most?		
	f	%
Vocabulary	29	43,28
Grammar	14	20,89
Speaking	10	14,92
Listening	8	11,94
Writing	3	4,47
Reading	3	4,47
4. What do you think about the future of Mobile Assisted Language Learning?		
	f	%
Positive	44	80,0
Negative	4	7,27
Neutral	7	12,73

Tables for the fifth and sixth interview questions are presented in the last part of the results as they are related to learner motivation and autonomy.

Table 2 below shows the answers to the first section of the questionnaire which included the items from the "Scale of Acceptance of Mobile Learning Tools". The items were presented with a five-point Likert-type scale (1=Strongly Disagree, 2=Disagree, 3=Not Sure, 4= Agree, 5= Strongly Agree). Item 9 had the highest mean score (4,45), followed by item 2 (4,33) and item 5 (4,27), respectively. Among these questions, item 18 had the lowest mean score (1,68), followed by item 8 (2,55) and item 12 (2,65), respectively.

Table 2. Frequencies and percentages of the items related to MALL perceptions

Items	Frequencies and Percentages					Mean
	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	
1. Using mobile devices improves my learning process.	N 0 % 0	3 2,7	13 11,8	49 44,5	45 40,9	4,24
2. Using mobile devices for learning fitting to my learning goals is easy for me.	N 0 % 0	5 4,5	13 11,8	33 30,0	59 53,6	4,33
3. When I hear of a new mobile application for foreign language learning, I look forward to downloading and using it.	N 12 % 10,9	14 12,7	29 26,4	24 21,8	31 28,2	3,44
4. I think mobile devices make it easier to study the content of a lesson.	N 2 % 1,8	6 5,5	16 14,5	36 32,7	50 45,5	4,15
5. Studying with mobile devices is fun.	N 2 % 1,8	4 3,6	13 11,8	34 30,9	57 51,8	4,27
6. When learning a language, I often prefer learning via mobile applications to learning using the traditional method of vocabulary learning.	N 5 % 4,5	11 10,0	19 17,3	26 23,6	49 44,5	3,94
7. I would like to use my mobile device in class if my teacher allows me to use it.	N 1 % 0,9	8 7,3	9 8,2	36 32,7	56 50,9	4,25
8. Although I use my mobile device effectively in and out of the classroom, I cannot achieve the required success in the exams.	N 25 % 22,7	31 28,2	33 30,0	10 9,1	11 10,0	2,55
9. When I download a new application for foreign language learning, I easily learn how to use it.	N 2 % 1,8	0 0	7 6,4	38 34,5	63 42,7	4,45
10. I often use my mobile device in the lessons of my teachers who designed the course to be suitable for mobile devices.	N 2 % 1,8	4 3,6	26 23,6	37 33,6	41 37,3	4,01
11. Using my mobile device in my foreign language learning process makes me a more successful student academically.	N 2 % 1,8	4 3,6	28 25,5	41 37,3	35 31,8	3,94
12. The mobile device makes it difficult for me to pay attention to the lesson.	N 27 % 24,5	32 29,1	20 18,2	15 13,6	16 14,5	2,65
13. I look forward to situations where I use a mobile device while learning the language.	N 9 % 8,2	13 11,8	27 24,5	35 31,8	26 23,6	3,51
14. Mobile devices have a positive effect on my note-taking skills.	N 7 % 6,4	6 5,5	22 20,0	40 36,4	35 31,8	3,82
15. My mobile device helps me improve my speaking skills.	N 5 % 4,5	5 4,5	25 22,7	37 33,6	38 34,5	3,89
16. Using a mobile device does not cause a significant change in my effectiveness in lessons.	N 16 % 14,5	20 18,2	36 32,7	21 19,1	17 15,5	3,03
17. My friends do not direct me to use mobile devices.	N 16 % 14,5	28 25,5	34 30,9	16 14,5	16 14,5	2,89
18. Using mobile devices is hard for me.	N 64 % 58,2	31 28,2	6 5,5	4 3,6	5 4,5	1,68
19. The use of mobile devices increases my productivity in creating products in foreign languages.	N 3 % 2,7	2 1,8	16 14,5	49 44,5	40 36,4	4,10

Differences Across the Four Grades of University Students

When the four grades of ELT students' answers in "Learner Autonomy Questionnaire" were compared, 11 items on the questionnaire revealed significant differences. These items are demonstrated in Table 3 below. In these items, the freshmen were found to have more negative perceptions of MALL than the other three grades, which is demonstrated in Table 4 below. However, no other significant differences were found among the different grades of students.

Table 3. Items that showed significant differences among the different grades

Statements		Sum of Squares	df	Mean Square	F	Sig.
1. Using mobile devices improves my learning process.	Between Groups	9,170	3	3,057	5,925	,001
	Within Groups	54,685	106	,516		
	Total	63,855	109			
2. Using mobile devices for learning fitting to my learning goals is easy for me.	Between Groups	10,138	3	3,379	5,111	,002
	Within Groups	70,080	106	,661		
	Total	80,218	109			
3. When I hear of a new mobile application for foreign language learning, I look forward to downloading and using it.	Between Groups	26,707	3	8,902	5,813	,001
	Within Groups	162,348	106	1,532		
	Total	189,055	109			
4. I think mobile devices make it easier to study the content of a lesson.	Between Groups	17,026	3	5,675	6,786	,000
	Within Groups	88,647	106	,836		
	Total	105,673	109			
5. Studying with mobile devices is fun.	Between Groups	12,426	3	4,142	5,265	,002
	Within Groups	83,392	106	,787		
	Total	95,818	109			
6. When learning a language, I often prefer learning via mobile applications to learning using the traditional method of vocabulary learning.	Between Groups	13,890	3	4,630	3,440	,019
	Within Groups	142,664	106	1,346		
	Total	156,555	109			
11. Using my mobile device in my foreign language learning process makes me a more successful student academically.	Between Groups	8,760	3	2,920	3,525	,018
	Within Groups	87,795	106	,828		
	Total	96,555	109			
13. I look forward to situations where I use a mobile device while learning the language.	Between Groups	26,107	3	8,702	6,916	,000
	Within Groups	133,384	106	1,258		
	Total	159,491	109			
14. Mobile devices have a positive effect on my note-taking skills.	Between Groups	13,976	3	4,659	3,907	,011
	Within Groups	126,388	106	1,192		
	Total	140,364	109			
17. My friends do not direct me to use mobile devices.	Between Groups	16,909	3	5,636	3,885	,011
	Within Groups	153,782	106	1,451		
	Total	170,691	109			
19. The use of mobile devices increases my productivity in creating products in foreign languages.	Between Groups	7,324	3	2,441	3,134	,029
	Within Groups	82,576	106	,779		
	Total	89,900	109			

Table 4. Mean scores obtained from the four ELT grades

Experience		S1	S2	S3	S4	S5	S6	S11	S13	S14	S17	S19
1 st grade	Mean	3,77	3,83	2,63	3,53	3,73	3,43	3,50	2,73	3,30	3,37	3,80
	N	30	30	30	30	30	30	30	30	30	30	30
	Std. Deviation	,898	1,053	1,217	1,196	1,230	1,431	1,009	1,337	1,291	1,217	1,126
2 nd grade	Mean	4,38	4,55	3,76	4,24	4,41	3,86	4,03	3,76	4,03	2,59	3,97
	N	29	29	29	29	29	29	29	29	29	29	29
	Std. Deviation	,561	,686	1,057	,830	,682	1,093	,731	,951	,981	1,119	,680
3 rd grade	Mean	4,45	4,48	3,69	4,34	4,45	4,21	4,03	3,69	3,79	3,10	4,24
	N	29	29	29	29	29	29	29	29	29	29	29
	Std. Deviation	,736	,738	1,391	,721	,783	1,082	1,052	1,105	1,013	1,319	,872
4 th grade	Mean	4,41	4,50	3,77	4,59	4,59	4,36	4,27	4,00	4,27	2,36	4,50
	N	22	22	22	22	22	22	22	22	22	22	22
	Std. Deviation	,590	,673	1,270	,796	,666	,902	,767	1,024	1,032	1,136	,740
Total	Mean	4,24	4,33	3,44	4,15	4,27	3,94	3,94	3,51	3,82	2,89	4,10
	N	110	110	110	110	110	110	110	110	110	110	110
	Std. Deviation	,765	,858	1,317	,985	,938	1,198	,941	1,210	1,135	1,251	,908

MALL, Learner Motivation and Learner Autonomy

Chi-square test was run with the data obtained from the "Learner Autonomy Questionnaire" and "Language Learning Orientation Scale-Intrinsic Motivation, Extrinsic Motivation, and Amotivation Subscales" to compare the students who

claimed they were using mobile applications for language learning purposes and those who claimed they were not. The results of the data obtained from both scales showed that there were statistically no significant differences between the two groups of students ($p=0,98$) in terms of motivation and autonomy.

To further investigate how mobile-assisted language learning applications can make learners motivated and autonomous, two questions were asked in the interview questions. Table 5 below shows the frequency and percentage of the students' answers to the interview question which was related to motivation. According to the answers, most of the students thought that MALL tools motivated them to learn a language ($f=32, \%58,18$). Figure 1 below reveals the answers of the students regarding how/in what ways mobile applications motivated them.

Table 5. The written interview question related to motivation

Do you believe that mobile-assisted language learning tools motivate you? If so, how?		
	f	%
Yes	32	58,18
No	4	7,27
It depends	3	5,45
Others	11	20,0

Figure 1. Students' answers to the question related to the ways MALL applications can motivate them

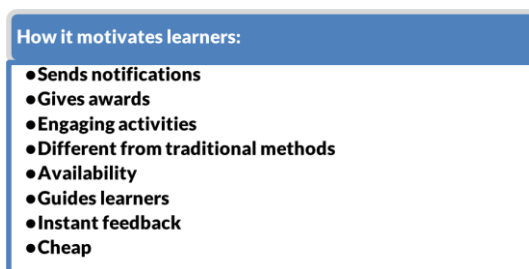
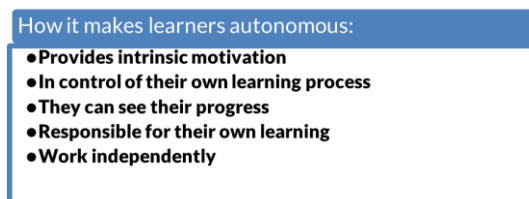


Table 6 below shows the frequency and percentage of the students' answers to the interview question which was related to learner autonomy. According to the answers, most of the students thought that MALL tools made them autonomous language learners ($f=37, \%67,27$). Figure 2 shows the answers of the students regarding how mobile applications can make them autonomous.

Table 6. The written interview question related to learner autonomy

Do you believe that mobile-assisted language learning tools makes you an autonomous learner? If so, how?		
	f	%
Yes	37	67,27
No	7	12,72
Neutral	8	14,54

Figure 2. Students' answers to the question related to the ways MALL applications can make them autonomous



DISCUSSION, CONCLUSION, AND IMPLICATIONS

This study investigated ELT students' perceptions of Mobile-Assisted Language Learning (MALL) and its impact on motivation and learner autonomy. The study sample consisted of 110 students enrolled in an English Language Teaching program at a university. Data were collected through an online questionnaire and written interview questions, and both descriptive statistics and statistical tests were used for analysis.

The findings of the study reveal that students generally hold positive opinions about using mobile applications for language learning purposes. The questionnaire results also show that learners think that the use of mobile devices is easy and fun, which makes using mobile devices for language learning more appealing. In this sense, the findings of this study are in line with the findings of Uzunboylu et al. (2014), as they also found out that the Turkish university students had positive attitudes toward the use of mobile devices in language lessons. This suggests that providing language learners with mobile applications designed for language learning can motivate them and help them become independent learners. However, it should be noted that while more than half of the participants reported using mobile applications, the number is still relatively low, considering the prevalence of smartphones among individuals. This study, therefore, suggests a need to educate learners about the language learning opportunities available through mobile devices.

Regarding specific language learning aspects, participants identified vocabulary learning as the most beneficial area facilitated by mobile applications, followed by grammar. This finding aligns with previous research that highlights the effectiveness and motivation-enhancing nature of vocabulary learning through MALL. Kennedy and Levy (2008) also found that learners found vocabulary learning through MALL very effective and motivating. The positive perceptions of learners regarding mobile-assisted language learning are also consistent with similar studies conducted with Turkish university students.

When comparing the perceptions of MALL among different grades of ELT students, the study reveals that 1st-grade students displayed more negative perceptions compared to other grades. This could be attributed to their limited experience in the ELT department since they were newly enrolled in the department and a focus on traditional language learning methods as they had just passed an exam period to get into the university. Therefore, it might be suggested that with more exposure and experience, students may recognize the advantages of MALL.

Regarding the impact of MALL on motivation and learner autonomy, participants believed that using mobile applications could enhance their motivation and foster autonomy in their language learning process. These findings support previous research that highlights the motivational and autonomy-promoting aspects of mobile applications. Mobile applications may be helpful for raising the motivation of language learners and assisting them to become autonomous learners to some extent, which is aligned with the findings reported by Rashid et al. (2019). However, no significant differences were found between students who reported using mobile applications and those who did not in terms of motivation and learner autonomy. This could be due to the existence of various opportunities for language learners to become autonomous, aside from mobile devices. Additionally, the study participants were ELT students who had already acquired knowledge about language learning, which could contribute to their high motivation and awareness of language learning goals.

As for the educational implications, many students nowadays are expected to be digital natives who use their mobile phones all the time. For this reason, providing language learners with mobile applications designed for language learning can motivate them and help them become independent learners in their language learning process. Previous research

also showed that using mobile applications for language learning purposes has many potential benefits (Booton et al., 2021; Fithriani, 2021; Klimova, 2020; Ducate & Lomicka, 2013). Therefore, it is important for language teachers to become familiar with MALL to assist their students during the teaching process. This also indicates the importance of awareness among prospective language teachers when it comes to the knowledge of MALL and other ICT tools used in language learning. The results of the current study indicate that students in the ELT department are familiar with mobile applications used for language learning purposes to some extent; however, they might not have the necessary outlook on how beneficial it may be for both their own language learning process and their teaching profession in the future. For all these reasons, it is crucial that prospective language teachers must be educated on how to use mobile applications and some ICT tools for both language teaching and learning purposes. Overall, this study provides valuable insights into ELT students' perceptions of MALL, indicating positive attitudes and its potential to enhance motivation and learner autonomy. The findings underscore the need to further promote and educate learners about the language learning opportunities offered by mobile devices.

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APPENDICES

Appendix A. Online questionnaire

1) Fill out the statements below with your answers.

1. Gender:

a)Female b)Male

2. Age:

a) 18 b) 19 c)20 d)21 e)22 f) Other

3. Which grade are you in the English Language Teaching Program?

a) 1st-year b) 2nd-year c) 3rd-year d) 4th-year

4. Do you use mobile-assisted language learning tools?

a)Yes b)No

5. How would you define your motivation level?

A) I have a very high level of motivation for learning English

B) I have some motivation for learning English

C) I don't have any motivation at all for learning English

2) Fill out the statements below with your answers.

"Scale of Acceptance of Mobile Learning Tools" (Özer, 2017)

Statements	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1. Using mobile devices improves my learning process.	1	2	3	4	5
2. Using mobile devices for learning fitting to my learning goals is easy for me.	1	2	3	4	5
3. When I hear of a new mobile application for foreign language learning, I look forward to downloading and using it.	1	2	3	4	5
4. I think mobile devices make it easier to study the content of a lesson.	1	2	3	4	5
5. Studying with mobile devices is fun.	1	2	3	4	5
6. When learning a language, I often prefer learning via mobile applications to learning using the traditional method of vocabulary learning.	1	2	3	4	5
7. I would like to use my mobile device in class if my teacher allows me to use it.	1	2	3	4	5
8. Although I use my mobile device effectively in and out of the classroom, I cannot achieve the required success in the exams.	1	2	3	4	5
9. When I download a new application for foreign language learning, I easily learn how to use it.	1	2	3	4	5
10. I often use my mobile device in the lessons of my teachers who designed the course to be suitable for mobile devices.	1	2	3	4	5
11. Using my mobile device in my foreign language learning process makes me a more successful student academically.	1	2	3	4	5
12. The mobile device makes it difficult for me to pay attention to the lesson.	1	2	3	4	5
13. I look forward to situations where I use a mobile device while learning the language.	1	2	3	4	5
14. Mobile devices have a positive effect on my note-taking skills.	1	2	3	4	5
15. My mobile device helps me improve my speaking skills.	1	2	3	4	5
16. Using a mobile device does not cause a significant change in my effectiveness in lessons.	1	2	3	4	5

17. My friends do not direct me to use mobile devices.	1	2	3	4	5
18. Using mobile devices is hard for me.	1	2	3	4	5
19. The use of mobile devices increases my productivity in creating products in foreign languages.	1	2	3	4	5

3) Fill out the statements below with your answers.

“Learner Autonomy Questionnaire” (Üstünlüoğlu, 2009)

Section 1. RESPONSIBILITIES

When you are taking English classes at university, whose responsibility should it be?

	Yours	Your Teacher's	Both
1. to ensure you make progress during English lessons			
2. to ensure you make progress outside class			
3. to stimulate your interest in learning English			
4. to identify your weaknesses in English			
5. to decide the objectives of your English course			
6. to decide what you should learn next in your English lessons			
7. to choose what activities to use to learn English in your English lessons			
8. to decide how long to spend on each activity			
9. to choose what materials to use to learn English in in your English lessons			
10. to evaluate your learning			

Section 2. ABILITIES

If you have the opportunity, how good do you think you would be at:

	Very poor	Poor	OK	Good	Very good
11. choosing learning activities in class	1	2	3	4	5
12. choosing learning activities outside class	1	2	3	4	5
13. choosing learning objectives in class	1	2	3	4	5
14. choosing learning objectives outside class	1	2	3	4	5
15. choosing learning materials in class	1	2	3	4	5
16. choosing learning materials outside class	1	2	3	4	5
17. deciding what you should learn next in your English lessons	1	2	3	4	5

18. deciding how long to spend on each activity	1	2	3	4	5
19. identifying your weaknesses in English	1	2	3	4	5
20. evaluating your learning	1	2	3	4	5

Section 3. ACTIVITIES

Last year and in this academic year, how often have you

Statements	Never	Rarely	Sometimes	Often	Always
21. done assignments which are not compulsory?	1	2	3	4	5
22. noted down new words and their meanings?	1	2	3	4	5
23. read newspapers in English?	1	2	3	4	5
24. visited your teacher about your work?	1	2	3	4	5
25. read books or magazines in English?	1	2	3	4	5
26. watched English TV programs?	1	2	3	4	5
27. listened to English songs?	1	2	3	4	5
28. talked to foreigners in English?	1	2	3	4	5
29. practiced using English with friends	1	2	3	4	5
30. done grammar exercises?	1	2	3	4	5
31. done group studies in English lessons?	1	2	3	4	5
32. attended the self-study center?	1	2	3	4	5
33. asked the teacher questions when you didn't understand?	1	2	3	4	5
34. made suggestions to the teacher?	1	2	3	4	5
35. planned your lesson/study?	1	2	3	4	5
36. activated your prior knowledge while studying?	1	2	3	4	5
37. made inferences about your lesson?	1	2	3	4	5
38. done classifications while studying?	1	2	3	4	5
39. summarised your studies while studying?	1	2	3	4	5
40. taken notes while studying?	1	2	3	4	5
41. used resources while studying?	1	2	3	4	5
42. worked cooperatively with your friends?	1	2	3	4	5

4) Fill out the statements below with your answers.

“Language Learning Orientation Scale-Intrinsic Motivation, Extrinsic Motivation, and Amotivation Subscales” (Noels et al., 2003)

Why are you learning English?

Statements	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1. I cannot come to see why I study a second language, and frankly, I don't give a damn.	1	2	3	4	5
2. Honestly, I don't know, I truly have the impression of wasting my time in studying a second language.	1	2	3	4	5
3. I don't know; I can't come to understand what I am doing studying a second language.	1	2	3	4	5
4. Because I have the impression that it is expected of me.	1	2	3	4	5
5. In order to get a more prestigious job later on.	1	2	3	4	5
6. In order to have a better salary later on.	1	2	3	4	5
7. To show myself that I am a good citizen because I can speak a second language.	1	2	3	4	5
8. Because I would feel ashamed if I couldn't speak to my friends from the second language community in their native tongue.	1	2	3	4	5
9. Because I would feel guilty if I didn't know a second language.	1	2	3	4	5
10. Because I choose to be the kind of person who can speak more than one language.	1	2	3	4	5
11. Because I think it is good for my personal development.	1	2	3	4	5
12. Because I choose to be the kind of person who can speak a second language.	1	2	3	4	5
13. For the pleasure that I experience in knowing more about the literature of the second language group.	1	2	3	4	5
14. For the satisfied feeling I get in finding out new things	1	2	3	4	5
15. Because I enjoy the feeling of acquiring knowledge about the second language community and their way of life.	1	2	3	4	5
16. For the pleasure I experience when surpassing myself in my second language studies.	1	2	3	4	5
17. For the enjoyment I experience when I grasp a difficult construct in the second language	1	2	3	4	5
18. For the satisfaction I feel when I am in the process of accomplishing difficult exercises in the second language.	1	2	3	4	5
19. For the "high" I feel when hearing foreign languages spoken	1	2	3	4	5
20. For the "high" feeling that I experience while speaking in the second language	1	2	3	4	5
21. For the pleasure I get from hearing the second language spoken by native second language speakers.	1	2	3	4	5

Appendix B. Written Interview Questions

1. How often did/do you use Mobile Assisted Language Learning tools?
2. To what degree do you find Mobile Assisted Language Learning tools beneficial?
3. Think about the four language skills, grammar knowledge, and vocabulary knowledge. Which language skill or knowledge area do you think the mobile applications help you to develop the most?
4. What do you think about the future of Mobile Assisted Language Learning?
5. Do you believe that mobile-assisted language learning tools motivate you? If so, how?
6. Do you believe that mobile-assisted language learning tools make you an autonomous learner? If so, how?