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Mobile Assisted Language Learning Needs Assessment in Secondary Education

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Abstract

Mobile-assisted language learning (MALL) has entered students' educational life with a rising momentum. For this reason, it is necessary to determine the needs of English language curricula, teachers, and students in terms of mobile-assisted language learning. In this study, a convergent parallel design of mixed methods was used. The study group of research consists of 130 high school students and 5 teachers working in secondary education institutions. A mobile application adoption scale was used for the data collected from the students. Semi-structured interviews were conducted with teachers. As a result of the research, it was concluded that students find mobile applications useful and adopt them, and teachers need to be informed about the MALL. It was also found that mobile applications should support the target learning outcomes and cover all four language skills.

Key Words

Mobile learning • Mobile assisted language learning (MALL) • Needs assessment

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Introduction

A need is a discrepancy between the present situation and the ideal situation. Finding out how to close a performance or learning gap is the process of needs assessment. It also includes the essential needs and how to address them (Gupta, et al., 2007; Kılıç, vd. 2021). Needs assessments are useful because they provide a framework of needs before making important decisions (Watkins, et al., 2012). The concept of needs assessment developed in the mid-1960s as a direct extension of the social action legislation of the time. Since then, needs assessment has become widely used in education for both purpose and application (Stufflebeam, et al., 1985).

The goal of a needs assessment is to gather data from a variety of sources on what is happening in the program (Song & Zhou, 2022). Curricula are all the learning experiences that schools deliberately prepare for the individual to reveal and develop his/her potential (Bobbitt, 1918). Curricula have four components: objectives, learning experiences, content, and evaluation (Demirel, 2007). Curriculum development is not a static process. Especially in student-centered programs since students' interests and needs are constantly changing, needs analysis should be done at the beginning of the program and during the design, implementation, and evaluation processes. (Leotta & Dolidze, 2022) Therefore, needs assessment has an important place in the development of programs. In addition, needs analysis should be conducted continuously due to the structure of the program, social and individual reasons, nature, science, art, and technology (Sönmez, et al., 2019). Changes in technology, especially as it evolves very quickly, may require updating needs analyses.

The use of technology by students as a source of information on its own has also affected 21st-century learning (Putra & Santosa, 2020). Today's young people, as defined by Prensky (2001), are digital natives who speak the language of the digital world, which includes computers, the internet, video games, etc. Since these digital natives are born directly into technology, they do not have the same learning, thinking, or even working skills as the generation that educated them. According to some researchers, Generation Z, born after 1996 and others after 2000, grew up with social networking and cannot tolerate a world without the internet and cell phones (Ryndak & Saldaeva, 2020). Currently, the students in our classrooms represent the screen generation, defined as "screenagers", who prefer to learn from the screen instead of learning from books and to write with a keyboard instead of writing with a pen (Yoon, et al., 2013). Traditional methods will not be sufficient to bring this generation's skills such as critical thinking, communication, and collaboration to the desired level (Druguş, 2022). Similarly, when teaching English to young people who cannot imagine a world without mobile technologies, current developments should be utilized and what they do not know should be taught with the tools they know best (Kacetl & Klímová, 2019). Mobile learning will allow teachers to approach their students in their language and will enable more effective language teaching.

Mobile learning is a difficult concept to define. While some researchers in the literature draw attention to the fact that mobile learning is done with mobile devices, others emphasize that it is the learner's learning independent of time and place (Hsu, 2016; Arvanitis & Krystalli, 2021). The word "mobile" refers to the capacity to move about freely and without restriction. Mobile learning is the use of mobile devices in any field of study (Gangaiamaran & Pasupathi, 2017). Mobile learning is realized by accessing information and learning materials at any time and place

through wireless mobile technologies (Ally, 2009). Examples of mobile devices include personal digital assistants, smartphones, tablets, and laptops (Chinnery, 2006; Viberg & Grönlund, 2012). Moreover, e-book readers, recording devices, game consoles, and voice recorders can also be shown among the technologies that support mobile learning (Çakmak, 2019).

MALL is a teaching and learning technique that supports and enhances language learning with smartphones or other mobile devices (Kacetl & Klímová, 2019). The mobility and information accessibility offered by mobile technologies play a significant role in improving English language instruction and learning. (El-Hussein & Cronje, 2010). According to Kukulska-Hulme (2010), MALL can be used in three contexts. These are the community context according to its formal or informal use, the teacher-led context, and the learner context with the student using it according to his/her preference. Regardless of the context, the internet provides access to thousands of resources for learners, providing countless authentic materials such as e-books, podcasts, downloadable files, exercises, songs, and movies (Lestari & Wardhono, 2020).

There are many studies on MALL. For example, a literature review on MALL (Czerska-Andrzejewska, 2016), and a meta-analysis of MALL for English as a foreign language learners' listening skill development (Li, 2023) were conducted. There are also some studies on vocabulary learning using MALL (Wang & Shih, 2015; Çetinkaya & Sütçü, 2018; Li & Hafler, 2022). Ali, et al. (2020) examined the effect of MALL in an informal learning environment. The effect of MALL on students' speaking skills was investigated by Shadiev, Liu, & Cheng, (2023). Students' perception on MALL was studied by Akman, & Karahan, (2023). However, there are relatively fewer studies on determining the needs of MALL. A small-scale needs analysis was conducted to determine which activities students do the most in MALL (Park & Tammy, 2014). The importance of needs analysis for developing materials for English lessons has been studied (Darici, 2016). In a study with EFL learners, it was investigated whether the MALL had a significant contribution to students' critical thinking skills (Agustina, et al., 2022).

Changing learner characteristics and technological developments will require the spread of mobile applications in schools. In this case, it is thought that determining the needs of mobile-supported instruction will contribute to the field in case of updating or reconstructing official programs in the future. In this study, the needs of the program, teachers, and students in the implementation of mobile-assisted language learning in secondary English courses were investigated.

Problem statement of the research: What are the needs of the program, teachers, and students in the implementation of mobile-assisted language learning in secondary English classes?

Subproblems

1. What is the level of students' use of mobile applications?
2. What are the teachers' views on the components of the English curriculum of MALL use in secondary education?
 - a) What are the views of teachers on the objectives component of the English curriculum of using MALL in secondary education?
 - b) What are the views of teachers on the content component of the English curriculum of using MALL in secondary education?

- c) What are the views of teachers on the learning experiences component of the English curriculum of using MALL in secondary education?
 - d) What are the views of teachers on the assessment component of the English curriculum using MALL in secondary education?
3. What are the teachers' views on teachers' competencies in the application of MALL in English courses in secondary education?
 4. What are the necessary precautions to be taken for the implementation of MALL in English courses in secondary education?
 5. What are the expected features of the mobile applications to be used for MALL in English courses in secondary education?

Method

Research Design

In this study, the convergent parallel design of the mixed method was used. In mixed research, data collection, analysis, and interpretation are done for both quantitative and qualitative methods (Creswell & Creswell, 2018). Mixed method quantitative and qualitative research designs are used to increase the quality of the research (Yıldırım & Şimşek, 2018). In the convergent parallel design, qualitative and quantitative data can be collected simultaneously and then combined and analyzed (Creswell & Creswell, 2018). The survey model, one of the quantitative research designs, was used. The survey model is used to determine the current situation (Sönmez & Alacapınar, 2017). A case study, one of the qualitative research designs, was used. The case study is a design to provide a more detailed understanding of the situation in cases where the boundaries of the content of one or more situations are not clearly drawn (Yin, 2002).

Participants

The research was conducted in a public school in Central Anatolia, Türkiye. Since the researcher worked with the students and teachers in the institution, the convenience sampling method was used. In convenience sampling, also called easy sampling, the researcher can work with people who are economical and easily accessible (Yıldırım & Şimşek, 2018). There are different study groups in the quantitative and qualitative dimensions of the study. The quantitative study group consisted of a total of 130 male students from the ninth, tenth, eleventh and twelfth grades of secondary school. Their ages range from 13 to 17. In the qualitative dimension, five teachers working in secondary education were interviewed. All teachers were female, and their ages range from 30 to 55.

Research Instruments

Since the research was mixed, two different tools were used to collect both quantitative and qualitative data. To collect quantitative data, the "Mobile Learning Adoption" scale developed by Çelik et al. (2016) was used. The KMO value of the test was .93 and the Cronbach Alpha value was .94. The scale consists of four sections. These sections are as follows: m-learning decision stage, m-learning decision type, m-learning attribute of innovativeness, and m-learning adoption attributes. The last part of the scale consists of eighteen items, 5 sub-dimensions, and a 7-point Likert-type rating was used. The sub-dimensions of this section are relative advantage, compatibility, trialability,

complexity, and observability. In this study, the fourth section of the scale, adoption attributes of the mobile learning dimension, was used.

In the qualitative dimension of the study, the interview technique was used to collect information. The interview technique provides in-depth verbal information about a subject when it is carefully structured (Marczyk, et al., 2005). A semi-structured interview form was used to collect teachers' opinions. Although the questions in semi-structured interviews are prepared in advance, the researcher can ask additional questions related to the subject of the research during the interview (Gupta, et al., 2007). In addition, in semi-structured interviews, the researcher can compare the data obtained by asking the same question to different participants (Kothari, 1985). In this study, a semi-structured interview form prepared by the researcher was used. Expert opinion was taken in the preparation of the form.

Data Analysis

Descriptive statistics were used to analyze the quantitative data of the study. The data were analyzed with the SPSS 26 package program. Qualitative data were analyzed by content analysis. In content analysis, researchers examine artifacts of social communication. Typically, these are written documents or transcriptions of recorded oral communications (Berg, 2001). The main purpose of content analysis is to examine such documents and bring similar data together to form a common category (theme) and to obtain a whole from the data (Yıldırım & Şimşek, 2018). The interviews with the teachers were transcribed into written media. A separate Word file was created for each teacher's voice recording. The names of the teachers were not used, and each teacher was given codes T1 and T2. Categories were created from teacher opinions. In addition, the participants' opinions were quoted in the findings without any changes.

Validity and Reliability

In this study, several measures were taken to increase validity and reliability. The reliability coefficient of the scale was calculated in the scale application. The researcher recalculated the reliability value of the scale. The Cronbach Alpha value of the scale applied to 130 participants was found to be .849. This value being greater than .60 indicates that the scale is reliable (Tavşancıl, 2006). Expert opinion was taken while preparing the interview form. The author conducted content analysis twice, one month apart. A Cohen's Kappa value of 0.85 was observed between these analyses. This Cohen's Kappa value between the first and second analyses indicates a high level of consistency by the author and demonstrates reliability in the content analysis. In the findings, the opinions of the interviewed teachers were quoted. The research process was explained in detail. Participant confirmation was obtained.

Findings

Findings Related to The First Sub-Problem

Descriptive statistics were used for the first sub-problem of the study "What is the level of students' mobile application usage?". Data analysis was conducted in the SPSS 26 package program. Table 1 presents the findings obtained for the first sub-dimension of the scale, relative advantage.

Table 1

Analysis Results of Students' m-Learning Relative Advantage Opinions

Items	N	Min	Max	M	SD
Learning through mobile technologies increases my efficiency.	130	1.00	7.00	5.18	2.134
I find m-learning beneficial.	130	1.00	7.00	5.20	2.207
M-learning increases the quality of what I do.	130	1.00	7.00	5.03	2.045
The use of mobile devices contributes to my career.	130	1.00	7.00	4.87	2.237

Table 1 shows the descriptive statistics results for the students' responses to the relative advantage dimension of the mobile application adoption scale. According to the results of the analysis, the statement "I find m-applications useful" has the highest mean ($m=5.20$). The statement "The use of mobile devices contributes to my career" has the lowest mean ($m=4.87$). The second sub-dimension of the scale is compatibility. Descriptive statistics were calculated for students' responses in this dimension. The findings obtained are given in Table 2.

Table 2

Analysis results of students' m-Learning compatibility views

Items	N	Min	Max	M	SD
The use of mobile devices is compatible with my traditional teaching methods.	130	1.00	7.00	4.53	2.289
The use of mobile devices is compatible with my learning preferences.	130	1.00	7.00	5.03	2.075
I possess the knowledge required to use the m-learning method.	130	1.00	7.00	5.01	2.138
I use m-learning effectively with my existing knowledge.	130	1.00	7.00	4.95	2.026

Table 2 shows that the averages for the answers given by the students are very close to each other. The mean ($m=5,03$) of the student's answers to the statement "The use of mobile devices is compatible with my learning preferences" has the highest mean. The lowest mean ($m=4.53$) belongs to the item "The use of mobile devices is compatible with my traditional teaching methods". The third sub-dimension of the scale is compatibility. Descriptive statistics were calculated for students' responses in this dimension. The results are presented in Table 3.

Table 3

Analysis Results of Students' m-Learning Trialability Opinions

Items	N	Min	Max	M	SD
I possess adequate means to try mobile technologies in the educational process.	130	1.00	7.00	4.55	2.268
I can access m-learning applications any time I like.	130	1.00	7.00	5.01	2.064
I first try an m-learning application and then I use it.	130	1.00	7.00	4.69	2.119

Table 3 shows the descriptive statistics results of the students' responses to the trialability dimension of the mobile application adoption scale. According to the results of the analysis, the statement "I can access m-learning applications any time I like." has the highest mean ($m=5,01$). The statement "I possess adequate means to try mobile

technologies in the educational process." was found to have the lowest mean ($m=4,55$). The fourth sub-dimension of the scale is complexity. Descriptive statistics were calculated for the answers given by the students in this dimension. The findings obtained are given in Table 4.

Table 4

Results of Analysis of Students' m-Learning Complexity Views

Items	N	Min	Max	M	SD
It is difficult for me to use m-learning applications.	130	1.00	7.00	3.49	2.276
It is easy for me to use m-learning applications.	130	1.00	7.00	5.32	1.929
It is easy for me to access information I need via mobile devices.	130	1.00	7.00	5.27	2.027

Table 4 shows the descriptive statistics results for the students' responses to the complexity dimension of the mobile application adoption scale. According to the results of the analysis, the statement "It is easy for me to use m-learning applications" has the highest mean ($m=5,32$). The statement "It is difficult for me to use m-learning applications." has the lowest mean ($m=3,49$). The fifth sub-dimension of the scale is observability. Descriptive statistics were calculated for the answers given by the students in this dimension. The findings obtained are given in Table 5.

Table 5

Analysis Results of Students' m-Learning Observability Views

Items	N	Min	Max	M	SD
I can observe that the use of mobile devices for educational purposes benefits those around me.	130	1.00	7.00	4.36	2.231
I can tell others about the benefits of m-learning.	130	1.00	7.00	4.38	2.175
I share with those around me the applications about the educational uses of mobile devices.	130	1.00	7.00	4.01	2.278
Those around me help each other in regard to m-learning applications.	130	1.00	7.00	4.15	2.277

Table 5 shows the descriptive statistics results for the students' responses to the complexity dimension of the mobile application adoption scale. According to the results of the analysis, the statement that "I can tell others about the benefits of m-learning" has the highest mean ($m=4,38$). The statement "I share with those around me the applications about the educational uses of mobile devices." has the lowest mean ($m=4,01$).

Findings Related to the Second Sub-Problem

For the second sub-problem of the study, "What are the teachers' views on the components of the English curriculum of the use of MALL in secondary education?", the opinions of the teachers were taken. The categories and frequencies obtained from the opinions are shown in Table 6.

Table 6

Teachers' Views on the Program Components of the MALL

Program component	Category	Frequency
Objectives	Permanent learning	3
	Supporting objectives	2
	Addressing all four skills	1
Content	Relevant to dairy life	3
	Oriented to student needs	3
	Rich material	2
Learning experiences	Games	3
	High motivation	2
	Different learning styles	2
	Growth characteristics	2
	Active participation	2
	Self-paced learning	1
Assessment	Immediate feedback	3
	At any time and place	2
	Practice	2

Table 6 presents the categories and frequencies obtained from the teachers' views on the curriculum components; the objectives, content, learning experiences, and assessment. The categories of permanent learning (f=3), supporting objectives (f=2), and addressing four skills (f=1) were obtained from the opinions on the objectives component of the curriculum. Regarding the content component of the program, three categories were reached: relevant to daily life (f=3), oriented to student needs (f=3), and rich material (f=2). The categories related to the educational situations component of the program are games (f=3), high motivation (f=2), different learning styles (f=2), growth characteristics (f=2), active participation (f=2), and self-paced learning (f=1). In the evaluation component of the program, a total of three categories were reached: immediate feedback (f=3), at any time and place (f=2), and practice (f=2).

Some teachers' opinions on the components of the English curriculum in the use of MALL in secondary education:

T1 *"I think it supports the learning outcomes."*

T2 *"There are a lot of resources on the internet, and I think authentic materials make it easier to connect the subjects with daily life."*

T3 *"When determining the application or web tools, the needs of the students are met when the target audience's language learning age is taken into consideration along with what they have learned and their needs in daily life."*

T4 *"Considering that students have a deep interest in the virtual world and digital tools, supporting language teaching processes with various programs, web 2.0 tools, rich materials, and content that appeals to multiple senses will increase the motivation of teachers and students, make their work easier, and make the acquired knowledge and developed skills more permanent."*

T5 *"Mobile-supported language teaching helps in selecting and organizing the content according to the student's interests."*

T3 *"Various vocabulary games can be used for students to understand the words and sentence structures that they need to acquire in the lesson more easily by having fun and to make them more memorable."*

T4 *"The student actively participates in the process."*

T5 *"At this stage, mobile-assisted instruction facilitates the work of the instructor and the learner in evaluating whether the student has reached the target or not. Quick feedback is received and it is easier to reach explanatory feedback."*

T2 *"It is nice to get instant feedback."*

Findings Related to the Third Sub-Problem

For the sub-problem of the study "What are teachers' views on teachers' competencies in the implementation of MALL in English courses in secondary education?", the opinions of the teachers were analyzed. Table 7 shows the categories and frequencies obtained from these opinions.

Table 7

Teachers' views on teacher competencies

Category	Frequency
Teachers aren't sufficient	5

When Table 7 is examined, only one category was reached from the opinions of the teachers regarding teacher competencies in MALL implementation. This category is teachers aren't sufficient (f=5). Teachers who took part in the research all concurred that teachers are not sufficient for MALL.

Some of the teachers' opinions about the competencies of teachers in the implementation of MALL in English courses in secondary education:

T1 *"Teachers need to be informed about mobile applications."*

T2 *"Teachers should be informed about current issues and innovations."*

T3 *"I do not think that teachers are competent in mobile-assisted language teaching. Some studies can be done to ensure that teachers are competent in this regard. For example, in-service training can be given and its implementation can be followed."*

T4 *"I do not think that teachers are sufficient."*

T5 *"I do not think that teachers are competent about mobile applications in any way. There may even be teachers who are not aware of them."*

Findings Related to the Fourth Sub-Problem

For the sub-problem of the study, the opinions of the teachers were analyzed for the sub-problem of "What are the precautions that need to be taken for MALL applied in English courses in secondary education?". Table 8 shows the categories and frequencies obtained from these opinions.

Table 8

Teachers' Views on Precautions

Category	Frequency
Unlimited and uninterrupted internet	4
Using mobile devices only for teaching purposes	4
Everyone has a mobile device	2

When Table 8 is examined, it is seen that three categories were reached according to the opinions of the teachers about the precautions to be taken in MALL. These categories are unlimited and uninterrupted internet (f=4), using mobile devices only for teaching purposes (f=4) and everyone has a mobile device (f=2). Teachers considered uninterrupted and unlimited internet as a necessary measure to be taken for the lesson to be effective. The use of mobile devices only for teaching purposes was another factor they drew attention to. Two teachers also stated that everyone should have a mobile device.

Some of the teachers' opinions about the measures to be taken for MALL applied in English course in secondary education:

T1 *"It should only be for educational purposes."*

T2 *"Measures can be taken to prevent students from using the mobile for different purposes during the lesson. In addition, student's access to the internet while using the mobile should be unlimited, secure, and uninterrupted."*

T3 *"The Internet should be unlimited, of course, considering that we will use it in every lesson, the Internet is necessary for every lesson."*

T4 *"The Internet is necessary, and every student should have a phone. Without these, the lesson will be interrupted. One student says my internet is out and the other says I don't have a phone. "*

T5 *"Having a language classroom for students and teachers and having technological devices with the necessary equipment can contribute to the process. Thus, there is no internet problem. Teachers and students can also be given individual mobiles for language teaching."*

Findings Related to the Fifth Sub-Problem

Teachers' opinions were analyzed for the sub-problem of the study "What are the expected features of mobile applications to be used for MALL applied in English course in secondary education?". Table 9 shows the categories and frequencies obtained from their opinions.

Table 9

Features that Teachers Expect from Mobile Applications

Category	Frequency
Functional/user friendly	5
Comprehensive	4
Student relevance	3
Economical	2
Ad-free	2

When Table 9 is examined, five categories were determined from the data collected for the expected features of mobile applications. These categories are functional/user-friendly (f=5), comprehensive (f=4), student relevance (f=3), economic (f=2), and ad-free (f=2). Teachers expect mobile applications to be functional and easy to use, that is, user-friendly. In addition, teachers also stated that the applications should be comprehensive enough to contain information about the subject and even allow students to make self-evaluations. Mobile applications are also expected to be suitable for students' interests, experiences, and learning styles and to be meaningful for students. Two teachers expressed the view that applications should be economical and ad-free.

Some teachers' opinions on the features expected from mobile applications:

T1 *"There should be accessibility to all kinds of information in the application so that it is not necessary to switch from one application to another. Following too many applications and switching from one to another can cause discipline problems in the classroom. It should address all skills reading, listening, speaking, and writing."*

T2 *"It should be practical. I think the student should be able to grasp how to use it easily so that we don't spend a lot of time explaining the application. Another situation that I am very annoyed with mobile applications is the interruption of advertisements. These ads can sometimes distract even me, for these reasons, it would be preferable to be ad-free."*

T3 *"Mobile applications should be suitable for the student's level, interest, and life. It should be functional and vital so that it can be transferred to daily life... There seems to be no single application that addresses all four skills."*

T4 *"It should provide continuity so that the student should not be disconnected from the subject. It should be economical for both the teacher and the student in some areas and the applications should be free and ad-free."*

Because some applications are free of charge up to a certain level and require purchases to be made within the application to access more information. But most importantly, it should be meaningful for the student."

T5 *"Mobile applications should have features such as being always at hand, offering the opportunity to learn from anywhere and at any time, being economical, being able to create a learning style suitable for oneself, and providing the student with the opportunity to self-evaluate and peer evaluate."*

Discussion, Conclusion & Suggestions

Discussion and Conclusions

It was tried to determine what the needs of the program, teachers, and students are in the implementation of MALL in English courses in secondary education. The first research question of the study is about student needs. For this, a five-dimensional Likert-type scale was applied to the students. As a result, students found mobile applications useful, but they thought that mobile applications contributed less to their careers. Students mostly think that mobile applications fit their learning preferences. [Keegan \(1999\)](#) was also of the opinion that mobile learning will be the learning system of the future. While some students can access mobile applications whenever they want, some students think that they do not have enough opportunities to try mobile technologies in the educational process. In the interviews with teachers, teachers emphasized that each student should have their device. This shows that although mobile devices are very common, not every student has their own mobile device or smart mobile device. Students find it easy to use mobile applications. While students think that they can tell others about the benefits of mobile applications, they tend not to share applications for educational use.

Teachers' opinions were consulted to determine the needs of the program in the implementation of MALL in English courses in secondary education. For the objectives component of the curriculum, teachers think that MALL contributes to students' permanent learning, supports learning outcomes, and addresses four skills. The use of technology, especially mobile phones, in classroom activities can help to learn goals such as helping all stages of learning where learning is difficult, improving students' achievement, and reaching students who would not otherwise have the chance to participate in education ([Nuraeni, et al., 2020](#)). Mobile technologies increase the efficiency of learning activities with ease and comfort of access to information ([Shih, et al., 2015](#)). According to [Saienko & Lavrysh \(2020\)](#), providing rich content, responding to students' interests and needs, and increasing their motivation can be considered positive aspects of mobile learning. Given that most language learners today have their own smartphones or tablet devices, the implementation of mobile-assisted language learning helps teachers create more motivating and engaging materials ([Valizadeh, 2022](#)). Online authentic materials also provide access to language expressions such as collocations, sayings, idioms, allusions, innuendos, humor, and sarcasm, which are frequently used in the target language in daily life but are limited in lesson hours when teaching the target language ([Blake, 2016](#)).

In the dimension of educational situations, it was emphasized that mobile applications can be used in games and increase student motivation. Students think that games should be included in the course in terms of creating a positive atmosphere and relaxing and serving learning goals ([Todea & Demarcsek, 2017](#)). They also reported that

mobile applications appeal to different learning styles, are suitable for student developmental characteristics if the right applications are selected, provide effective participation, and allow students to learn at their own pace. In the evaluation dimension, they concluded that mobile applications provide instant feedback, there is no time and space limit, and evaluations are practical.

Mobile learning is effective if it enables students to actively participate in the lesson and if a teaching environment suitable for student characteristics is prepared (Aslan & Göksu, 2016). Preparing tasks, exercises, or activities for students in MALL is a process that requires special effort and care (Taj et al., 2016). For this, the teacher himself/herself needs to know both mobile applications and Web 2 tools. They also need to make preliminary preparations about which applications they will use for which language skills (speaking, listening, writing, and speaking), how often, for which objectives, when (in and out of class), and how they will use them. Moreover, teachers do not find teacher competencies sufficient for MALL. They suggested training for teachers on this subject. They also want to be informed about current issues and innovations. In addition, teachers have a responsibility to encourage students to become digitally literate by teaching them to learn through technology (Gilster, 1997). Since mobile devices are designed without the direct purpose of teaching and learning, students may not know how to do the learning expected of them on the phone. In fact, the teacher has to adjust the learning to the devices that the students have (Miangah & Nezarat, 2012). Mobile learning is a specialty learning that is evolving quite rapidly and there are an ever-increasing number of conferences, seminars, and workshops to keep up with developments in the field (Kukulaska-Hulme, 2020). Considering all these, teachers should not be left alone in encouraging students to use mobile applications and should be ensured to participate in such training.

They stated that uninterrupted and unlimited internet should be provided for the measures to be taken while implementing MALL. One of the negativities experienced in mobile learning is the absence or interruption of the internet (Ekren & Kesim, 2016). Teachers think that mobile devices should only be used for teaching purposes in class. It may be possible for schools to provide students with the internet to use it only for class purposes. They also stated that every student should have a mobile device. In cases where not everyone has a smartphone, students can be asked to bring any device that connects to the internet with the "BYOD model", which stands for "Bring Your Own Device" in English (Arvanitis & Krystalli, 2021).

Teachers expect mobile applications to be user-friendly and functional. Teachers pointed out that apps should be comprehensive. Apps that address all four skills and provide access to all the information students need about the subject will reduce the number of apps used and prevent wasting time switching from one app to another. Many mobile apps are designed to teach grammar and vocabulary and are in the form of tests, which means that other skills are neglected (Chen Hsieh, et al., 2017). In addition, it was reported in teacher opinions that there should be features such as self-assessment and peer assessment. Peer assessment provides students with a perspective on how their ideas are perceived by others and how they should make corrections (Azar & Nasiri, 2014). Therefore, all language learning aspects should be prioritized by app designers and developers, and while creating apps, they should be both creative and comprehensive (Alnufaie, 2022). Another feature expected from mobile apps is that they should be learner-friendly. Mobile applications should be suitable for student interest, age, and developmental characteristics.

In addition, mobile applications should be affordable and should not contain advertisements to avoid distraction. Teachers also drew attention to the fact that the first few levels of some apps are free of charge and the following levels require in-app purchases.

As a result, students think they do not have problems while using mobile applications. Even though they think that mobile learning is suitable for their learning styles, they do not have enough awareness to share educational applications with each other. Teachers can provide more guidance to students about mobile learning and mobile applications. Teachers should both make preliminary preparations and know mobile applications while organizing in-class learning experiences or directing extracurricular use of mobile-supported language learning. In this regard, teachers can be directed to activities such as conferences and workshops. To sum up, an application that includes all language skills and is comprehensively prepared with functions such as self- and peer-assessment can increase motivation in the course and prevent problems such as distraction that some mobile learning can cause. These issues can be taken into consideration in the applications to be developed for MALL. For all these to happen, the internet should be provided by the schools.

Recommendations

In this study, student, teacher, and program needs of MALL were examined. Analyzing the needs of school administrators and families to determine the needs in MALL could be the subject of another study. In addition, the fact that mobile devices are personal devices may require the inclusion of counseling services at schools. In addition to teachers and students, the research can be expanded with subject area experts and program evaluation experts. The needs of mobile applications can also be analyzed in different courses.

Ethic

I declare that the research was conducted in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

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