Developing Mobile-assisted Language Learning (MALL) Materials for ESL Learners

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Abstract
The development of technology has brought significant impacts on education. This creates much potential for the teaching and learning of English as a second language. With the great capability of the internet, educators can design powerful materials for efficient and effective learning. Mobile-assisted Language Learning (MALL) has become one of the popular research areas on technology in education in recent years for its advantages of flexibility of time and place. However, much only focus on a single application or platform implementation for the learning. This proposed study intends to integrate multiple internet-based platforms to support ESL learning. It aims to develop attractive and interactive learning materials that utilize Mobile-assisted Language Learning. This research uses the ADDIE method in developing the materials. To evaluate the materials, Technology Acceptance Model (TAM) will be adopted to investigate the participants’ perceptions of their experience of using the MALL materials. The participants of the study will be 7th-grade students of SMPN 4 Satap Sejangkung. These materials are planned to be a product that can make use of the advantages of mobile devices, in this case, flexibility and usability.

Keywords: mobile-assisted language learning, material development, technology acceptance model

1 INTRODUCTION

Technological advances in mobile devices have impacted many sectors. In education, mobile technology can support learners by providing new experiences of learning (D. Kim et al., 2017). The technology creates many breakthroughs in learning methods and materials. Firstly, the learning process has flexibility in terms of place and time. Ghorbani & Ebadi, (2019) said that device mobility provides users access to it anywhere and anytime they prefer. In addition, Mehdipur & Zerehkafi (2013), as cited in Gael (2021), previously outlined eight characteristics of mobile applications that are integral parts of modern technology. Among these characteristics, three stand out: portability, availability, and persistence. Portability ensures that individuals can use the application whenever they want, allowing for flexibility in usage patterns. Availability extends this flexibility by allowing users to use the application from any location, facilitating communication and collaboration with teachers, peers, and experts. Finally, persistence ensures that users can rely on the application over time, even as technology advances and changes.

The internet, in this case, has made it possible for teachers to conduct learning online with students from different and distant locations. Students are also able to learn using mobile devices anywhere. By having their laptops, smartphones, or tablets, they don’t have to carry a lot of books. Secondly, mobile devices can provide rich learning materials both offline and online. Warschauer et al. in Le (2021) mentioned one of the benefits of using the internet is that it can provide authentic language materials. With an internet connection, students can access many learning materials such as books, videos, and applications from various sources provided by people from around the world. These new ways of learning have made education grow faster than before.

In English language learning, learners can become more independent in their learning as it is supported by mobile devices. Kessler in Kohnke (2020) stated that the number of demands for independent learning integration using online platforms is increasing. Nowadays, there are lots of useful language learning applications or platforms available for anyone. The development of applications and platforms for learning and their
positive perception has resulted in numerous applications being developed, created and accessible for installation for the mobile operating systems (Godwin-Jones in Masuda, 2021). Learners can practice with exercises, watch videos, and both listen and record sound. Additionally, one of the favourable kinds of applications or platforms is those featured with games. With these, language learning styles have changed in a more efficient and fun way. As Loewen et al. (2019) said that the growing ubiquity of mobile technologies, such as smartphones and tablets, has affected the way of language learning, these facilities can provide more opportunities for students to experience effective learning.

Moreover, the use of mobile devices can help learners practise their English skills (listening, reading, writing and speaking). Pham et al. in Le (2021) concluded that online applications bring a good learning environment to learners which gives them opportunities to experience interesting activities to practice language skills. In addition, Ozer & Kılıç (2018), also mentioned that research has demonstrated that mobile learning technologies can help learners improve their language skills. Listening materials from the internet are very plentiful. People can even have listening recordings with different accents used by people around the globe. Secondly, learners can read many reading texts with their mobile devices. As the books can easily be opened, learners' reading activities will be more frequent. Furthermore, mobile devices help learners to practice their writing. The technology of computer typing enables learners to write, edit, and revise their writing easily. Lastly, speaking ability can also be improved by using mobile devices. Learners can have actual speaking practise with people from other countries. This can be a source of motivation for them in learning English.

All these activities refer to learning called as Mobile-Assisted Language Learning (MALL). Recent studies have discussed MALL in a variety of aspects. Some investigate the implementation of certain mobile applications. Others explore the teachers' or students’ perceptions of MALL. One of them was done by Khubyari & Narafshan, in 2016, in which they conducted an experimental study on the impact of MALL on EFL learners’ reading comprehension. They involved 40 students that were chosen randomly and equally in the experimental and control groups. In the experiment, a significant improvement between the pre-test and post-test was obtained. They also found that EFL learners prefer reading via mobile phones to reading through conventional books because mobile phones are convenient, portable and easily accessible. Kohnke, in 2020, designed a vocabulary learning application to improve students’ L2 receptive vocabulary and investigated their perceptions of the implementation of the application. The study employed qualitative semi-structured interviews. He found that the students gained a strong motivation to learn vocabulary. The results also revealed that students favour mobile applications with gamified features.

Among those studies on the MALL implementation, much only focus on applying a single application or platform to the learning. Thus, the current study intends to integrate multiple applications or platforms to support the students’ learning. It aims to develop interactive and attractive materials that make use of the capability of mobile phones. This study is important as it will try to present an effective material design for ESL learners that make use of the digital features of today’s mobile technologies. Kim & Kwon (2012) in their study suggested that effective design and use of mobile applications for ESL learners should be continued to study to get the right direction to effective MALL. Therefore, this current study is expected to contribute to the development of MALL materials to provide more attractive and effective ESL learning.

2 LITERATURE REVIEW

2.1 Mobile-assisted Language Learning

Many educators and researchers have adapted and implemented mobile technologies in educational settings. In recent years, the rush in the use of mobile devices as teaching tools has led to an increasing number of educational institutions exploring the possibilities for their students to use these popular and daily devices for learning, both in the classroom and outside the classroom (Hashim et al., 2017). Mobile-Assisted Language Learning (MALL) refers to the language learning process that is aided by mobile device usage. Khubyari & Narafshan (2016) mentioned MALL as a teaching and learning activity that equips mobile phones or other mobile devices with wireless connectivity. Based on the context, the definition may be different among experts. However, Loewen et al., (2019) summarized the fundamental elements of MALL that it is consistently supplied with study flexibility of time and place, study continuity on different devices, such as mobile phones, tablets, and laptop, easy information accessibility, and adaptability to personal study habits. Hashim et al., (2017) also summarized that Mobile-Assisted Language Learning (MALL) is formal or informal learning facilitated by handheld devices that are available for use with the flexibility of place and time. Because of the flexibility and accessibility of
mobile phones, learners can make use of MALL to help them learn and improve their English skills.

The place of MALL can be either in the classroom or outside the classroom. In the classroom, the learning is led by educators. Teachers use mobile devices to facilitate learning. For example, with their smartphones, students are asked to go to certain websites and read the materials. Teachers can also ask students to do quizzes on their phones with multiple learning platforms. Outside the classroom, students use mobile phones to learn independently. This usage is to help them improve their skills or solve problems they encounter in learning. When doing projects, for example, students do not always consult with the teachers. They can solve their problems by searching for solutions from various sources on the internet.

Panagiotis & Krystalli, (2020) mentioned the use of Mobile-Assisted Language Learning (MALL). Firstly, it improves learning motivation through the use of technology familiar to students such as smartphones and tablets. Secondly, it gives students the freedom to develop all six communication skills: comprehension and production of written speech, comprehension and production of spoken language, oral interaction, and oral and written mediation. Thirdly, it encourages the use of the target language as a unique means of communication. Furthermore, MALL also facilitates the teaching and learning process through exploring, analyzing, discovering, and choosing activities that make sense in the real world. In addition, it also enhances any type of interaction between real and virtual environments, not only between students in the same classroom but also with students in another classroom inside and outside school boundaries. Lastly, and more importantly, it promotes learning in a fun way.

MALL can supply students with enormous materials from the internet, taking the advantage of the accessibility of mobile phones. Using the internet connection, students can access learning materials provided on worldwide websites. Zeng (2020) stated that learning materials in the form of visual, audio and textual were brought together and made available on the web. Language learners can instantly access these resources at their fingertips through online easy-to-use search engines. Besides, there are also numerous various kinds of mobile applications for learning that students can install and use. Ozer & Kiliç (2018) stated that developers designed mobile applications for language learning purposefully to aid approaches and content of mobile learning.

One more important thing to keep in mind is that learning materials that are accessed through mobile phones bring students enjoyment as they are attractive and easy to use. This may strongly influence their motivation to spend more time on learning. D. Kim et al. (2017) stated that mobile devices such as mobile phones are interesting and attractive learning tools for language learners. As students are happy using a learning tool, they are likely to be more motivated. In addition, Al Fawareh & Jusoh (2017) stated that having a mobile phone is like having a tiny computer in a pocket. The use of mobile phones in a classroom can be very helpful for teachers and students to vary the learning process. Moreover, the students nowadays are close to mobile phones. Many of the features mobile phones are equipped with also support a learning environment, as Sider (2014) mentioned that mobile phones have made learning more flexible, and easy and have helped to reduce the conventional learning styles. Therefore, learning materials can be put to their maximum potential through this kind of mobile technology.

Even though mobile technologies can be very useful in language learning and teaching, educators and researchers should consider the real implementation by students that may raise problems. Lin & Lin (2019) mentioned several issues. Firstly, learners assume that the main use of mobile phones is for communication and social media rather than as a learning tool. Some even do not prefer mobile phones for learning because they cannot concentrate when having the phones with them. Secondly, language learning by using mobile phones in classroom activities does not make use of mobility. The learning process tends to be led passively and conventionally by the teachers which is against the flexibility principles of place and time. Thirdly, MALL may also encounter financial obstacles. The learning will take the cost of using network and internet services. In addition, Hashim et al. (2017) were concerned that the aspect of mobile phone usability such as the size of the screen, battery capacity, storage, and downloading speed ability are several limitations that students may encounter in Mobile-Assisted Language Learning.

2.2 Technology Acceptance Model

The Technology Acceptance Model (TAM) refers to the concept that explains how humans decide to accept and use new technologies. Granić & Marangunić (2019) defined the technology acceptance model as the key model in predicting and understanding human behaviour towards potential acceptance or rejection of the technology. The Technology Acceptance Model was meant to help predict technology acceptance based on the components of perceived usefulness, perceived ease of use, attitudes, and behavioural intention.
The final focus of the system, as Wan Azli et al., (2018) demonstrated, is the endpoint where people use the technology or called the actual use. This decision to use the technologies is influenced or caused by behavioural intention. The behavioural intention is led by the attitude which is the general affection for the technologies. Two beliefs determine people’s attitudes toward technology and become the key components in the Technology Acceptance Model. These two key components are the perceived usefulness and the perceived ease of use of the technology.

The perceived usefulness (PU) in the Technology Acceptance Model is the belief that the utilization of information technologies will enhance work performance (Baki et al., 2018). It usually refers to people’s perceptions based on the results of their experiences. Enu-Kwesi & Opoku (2020) similarly refer to the perceived usefulness component as the degree to which people believe that using a particular computer system will enhance their performance. On the other hand, Baki et al., (2018), continued that the perceived ease of use (PEU) is the belief that no significant effort will be spent to use information technologies. It refers to how people perceive that the technologies are easy to use. The perceived ease of use in the Technology Acceptance Model is how a user accepts and agrees that using the technologies is not costly.

In education, Davis in Granić & Marangunić (2019) concluded that over the years, the Technology Acceptance Model has become a top scientific paradigm for the acceptance of learning technology investigations. It has been used for investigating the acceptance by students, teachers, and institutions. Researchers can apply this model to Mobile-Assisted Language Learning. Sánchez-Prieto et al. (2016) mentioned that mobile learning is one of the studies conducted that have been exploring the Technology Acceptance Model’s applicability to different learning technologies. Understanding students’ perceptions and attitudes on mobile learning is important to maximize the learning outcome. It is important to highlight that a student’s attitude towards that technology has a significant effect on its acceptance. Alhamami & Costello (2019) stated that many times, being sceptical or fearful of new teaching tools and methods becomes part of potential users of new instructional technologies. Therefore, the Technology Acceptance Model offers better opportunities for researchers or educators to explore how Mobile-Assisted Language Learning is accepted among students.

3 METHOD

The participants of the study will be the 7th-grade students of SMPN 4 Satap Sejangkung, Sambas. There will be 18 students involved in the implementation of the designed MALL materials. This study uses the research and development model as the research design. The materials will be designed by referring to the ADDIE model to ensure that the process of conducting the research is well-taken. According to Ghani & Daud (2018), one of the most popular methods that are still updated and used in many large organisations to design and develop instructional materials is ADDIE (Analysis, Design, Development, Implementation, and Evaluation). This model consists of five phases that give dynamic and flexible guidelines to produce an effective and efficient teaching process.

The phases described by Alodwan & Almosa (2018) will be the base for developing and designing the materials.

3.1 Analysis

This phase consists of analyzing the learners, instructions, and learning objectives. As the materials are meant for the 7th-grade students of junior high school, in this phase, they will be adjusted to the topics being learned. Based on the initial analysis, the lesson on Daily Routine is selected for the materials.

3.2 Design

This phase focuses on designing an assessment for the topic, selecting a form of the course, and creating an instructional strategy. In this phase, the materials in form of a unit/chapter, placed on Google Classroom, are prepared for implementation in mobile-and-internet-based learning. The materials will be delivered through Task-based Language Teaching and integrated with mobile phones and the internet. H. Kim & Kwon (2012) mentioned the studies on MALL that they reviewed did not use the specific recognizable methodological approaches because there were various methods in the implementation. However, the most frequent one was Task-based Language Teaching. The same result was also revealed by Shadiév et al. (2020) were the most used method was task-based learning in MALL. He also mentioned that it is a student-centred learning method that focused on the use of the target language by having meaningful tasks. Therefore, the decision to deliver the materials by using TBLT is in line with some research done in the past. Thus, the materials need to follow the TBLT principles when being integrated with technology to ensure that the learning process is delivered correctly.

3.3 Development

This phase starts by developing and creating a good quality factual sample for the instruction design or the materials. In this phase, the materials will be organized and presented in Google Classroom.
which consists of activities that use multiple applications, platforms and features, such as Kahoot!, Quizizz, Edform, Puzzel.org, Wizer, Google Form, Google Slides, videos, pdfs, links, and Quick Response codes to the sites.

3.4 Implementation
This phase is about having the action of the plan. In this phase, the materials will be implemented in the classroom for the participants which are 7th-grade students.

3.5 Evaluation
This phase evaluates the effectiveness of instructional designs or materials. In this phase, the implementation of the materials will be assessed to see the strengths and weaknesses through students’ perceptions. The research will adopt the TAM model to investigate how students perceive the implementation. A questionnaire will be distributed to students to collect this data. It will apply the Likert scale with 6 levels of responses (strongly agree, agree, slightly agree, disagree, and strongly disagree). The first section of the questionnaire will give statements about the benefits of Mobile-Assisted Language Learning (MALL). For example, the questionnaire items will state, “MALL gives me more understanding about the learning materials.”, “MALL increases the quality of my work.”, “MALL enables me to complete my work faster.”, etc. On the other hand, the second section of the questionnaire will give statements about how easy Mobile-Assisted Language Learning (MALL) is done by them. The questionnaire items will state, “MALL is flexible in time and place.”, “Mobile phones are easy to operate for learning.”, “I often get distracted when learning using mobile phones.”, “MALL spends too much cost on finance.”, etc. The students will give their responses based on what they experience during the implementation. The students’ responses will provide information about how they perceive mobile learning.

4 REFERENCES


