How is Mobile-Assisted Language Learning (MALL) Implemented by Senior High School English Teachers?

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Abstract: Implementing Mobile-Assisted Language Learning (MALL) is one way to develop language teaching practices. Finding out how MALL is implemented by English teachers could provide insights to the future of MALL. Three high school English teachers were chosen as the subjects of the study representing three degrees of implementation—high, medium and low. It was revealed that the teachers recognized the potentials and practices of mobile devices for language learning. However, their familiarity with MALL does not automatically make them able or willing to employ MALL. Their application is limited in the range of mobile applications and learning activities.

Key Words: degree of implementation, MALL

INTRODUCTION

Mobile learning has gained popularity in the education area due to the improvement of ICT tools namely mobile phones and tablets which are small enough to be carried around. Along with the support of the Internet connection in many places, the use of mobile devices to assist language teaching and learning has become more feasible. The more technology advances, the more benefits it provides for teachers and learners at every education level. There is a great opportunity that technology development will provide a new way of language learning. One way to develop the language teaching and learning process is through the implementation of mobile learning. Mobile-Assisted Language Learning (MALL) offers a lot of potentials and challenges. Due to its portability, teaching and learning practices are possible to take place outside the classroom (Seppälä & Alamäki, 2003). Chinnery (2006) also stated another advantage of mobile devices in which they are relatively more affordable than a computer. Using mobile devices in teaching and learning could provide students with more learning opportunities and increased their participation (Kim, Rueckert, Kim, & Seo, 2013). However, challenges in MALL implementation such as connectivity (Miangah & Nezarat, 2012), the small screen of mobile devices (Thornton & Houser, 2005) and problem in monitoring the students become the limitations for teachers to implement MALL in their classes. Therefore, to maximize the impact of MALL implementation, teachers need to focus more on its features and potentials that will be useful in language learning instead of focusing on its drawbacks and limitations (Ivone & Nhat, 2018).

There are many definitions of mobile learning circulating in the past few years. Mobile learning is delivering learning materials to students by utilizing mobile devices such as mobile phone, tablet or MP4 players (Parsons & Ryu, 2006). However, mobile
learning should be travel-friendly to be operated for language learning in every occasion. Correspondingly, being available and applicable at any time and any place are the qualifiers of MALL (Geddes, 2004). Students have the opportunity to learn every time and everywhere they are (Miangah & Nezarat, 2012). Various definitions of mobile learning and MALL have been formulated by prior researchers and education experts. The descriptions seem to lead to a concept of MALL that is agreed by all in which MALL is not merely learning the second language by applying mobile devices during the learning process, but it also means learning the second language in both formal and informal context by employing mobile devices that can be done anytime and anywhere (Kukulska-Hulme & Shield, 2008).

There have been some attempts to use specific functions of mobile devices in language teaching and learning. It is disclosed that mobile devices could provide positive outcomes for language learning in spite of the fact of its challenges in which applying MALL will surely need agreement both from teachers and students. Teachers’ readiness and perceptions at open universities of commonwealth Asia toward mobile learning or MALL to be used in Open Distance Learning (ODL) was observed. It is reported that the teachers are well-informed on the advantages of mobile learning (Miglani & Awadhiya, 2017). Also they do have positive perceptions on it and have the skills to implement mobile learning although most teachers still need to be trained to advance their skills.

Another study was conducted about the benefits of the mobile phone in classroom activities for English learning in the context of Indonesian Islamic higher education. The findings reveal that the students have positive perceptions about MALL and perform several activities at class by using mobile phone such as utilizing offline dictionary or playing audio files (Yudhiantara & Nasir, 2017). Similar to the research mentioned previously, High School Teachers in South Sulawesi, Indonesia, have good perceptions of mobile learning for training (Yusri, Goodwin, & Mooney, 2015). It is reported that although they have limited knowledge about mobile learning, they have a strong willingness to seek more information about it.

Most previous research studies investigated either students’ perceptions or the perceptions of teachers. To date, how much teachers spend the time to implement MALL, how frequent they use the mobile devices and how far they utilize the mobile devices have not been extensively explored. How teachers apply MALL in the classroom could be varied in terms of quantity and quality. In other words, there are not sufficient data on the degree of the implementation of MALL in the English classroom. Additional data about it could enrich the previous research on the related topic. Finding out the quantity and quality of teachers implementing mobile devices in English class could reflect the teachers’ readiness in using mobile technology in the class. Accordingly, this study aims to describe how MALL is implemented by Senior High School English teachers according to three categories or degree of implementation: high, medium, and low.

**METHOD**

The study describes the degree of MALL implementation by English teachers at Senior High Schools in Malang. It applies descriptive qualitative research which is used to discover information on a certain phenomenon. In this research, multiple interviews with open-ended questions were conducted to collect data. Furthermore, the information was analyzed qualitatively by describing the findings supported by relevant theories.

There are three stages conducted in this study: subject screening, teacher interview, and student interview. The screening stage involved twelve English teachers who teach in the selected schools. This process was done by applying a short interview in the preliminary session to finally select three English teachers as the main subjects of the research.

The results of the short interview did not directly answer the research problem, but it provided a framework to identify the teachers’ degree of MALL implementation that was useful for the rest of the study. Three subjects were chosen from 12 English teachers. The subjects showed a different degree of MALL implementation, from high, medium to low. The three teachers were contacted and asked if they were willing to participate further in the research. The three selected teachers shows in Table 1.

The implementation of MALL is classified to high when the average answers of the teacher are on 76% to 100% and medium when the average of answers is on 51% to 75%. Meanwhile, the implementation of the MALL is low when the average is on 26% to 50%. There were one male and two female teachers for the guided interview. Each teacher represents each category of MALL Implementation, one teacher with a high degree of MALL implementation (Andre), one

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**Table 1**

<table>
<thead>
<tr>
<th>Category</th>
<th>Teacher</th>
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<tbody>
<tr>
<td>High</td>
<td>Andre</td>
</tr>
<tr>
<td>Medium</td>
<td>Ingrid</td>
</tr>
<tr>
<td>Low</td>
<td>Maria</td>
</tr>
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teacher with a medium degree of MALL implementation (Dewi), and one teacher with a low degree of MALL implementation (Eva).

After three English teachers from different schools were selected, the guided interview was delivered to the selected teachers. The guided interviews with the teachers were conducted for three times. Face-to-face interviews with open-ended questions were carried out. For interviewing the teachers, the interview guide was divided into two parts; part A and part B. Part A consists of 10 demographic questions. The questions were asked to find out the background of the teachers, their education background and teaching experiences. The information was needed to describe how the background and experiences relate to their teaching performances. There are 15 questions about MALL implementation in part B. Seven questions were asked to obtain data on MALL implementation in general. The rest of the questions were about the preparation in implementing MALL, and two questions were about the execution of MALL implementation. The reflections after implementing MALL were asked in the last three questions.

Students from the selected high schools were also interviewed. The interview was about students’ opinion on some topics such as access to mobile devices, how their teachers implement MALL in teaching English, how do they feel during the implementation and what do they expect. The interview questions were not limited to what is written in the interview guide. Questions were improved and added during the interviews. The students were not interviewed individually; in fact, the interviews were conducted in groups to save time since the students had limited time for the interview. The students’ interview was conducted to see the aptness of the answers from both teachers and students. Also, this interview was useful to strengthen the obtained data.

The data were displayed in the form of description. Both data from teachers’ interview and students’ interview were transcribed and analyzed according to the common themes found in the data. Content analysis was used to analyze the data. It is the process of summarizing and interpreting written data. The data obtained from the interviews were reduced to sharpen, sort and focused, discarded and organized until detail portrayal of the degree of MALL implementation can be depicted. The data which are not related to the study were omitted.

**RESULTS**

**Andre–The Teacher with High Degree of MALL Implementation**

Andre is a 41-year-old teacher who has been teaching English for approximately 16 years. He took a double-degree program at his University. He has been implementing MALL in his English class since about three years ago. He stated that he used MALL for administering quizzes to his students, but in this year, MALL was fully implemented in his English classes. He used mobile devices either for doing the assignment, submitting assignment or communicating with his students. He employed one learning application in his English class namely Google Classroom. Andre further explained that most of the times he implemented MALL during the school hours. He preferred this way because it was practical. The only activity done by the students outside the school hours was to submit the assignment at home. When asked about his preparation, implementation, and reflection of implementing MALL, he described several things as described showed in Figure 1.

Andre made sure that he prepared MALL very well before he employed the technology in the classroom to avoid misunderstanding or misuse of the mobile technology, started from preparing the lesson plan and materials, mastering the to-be-used learning application and giving information and practice about the application to the students.

<table>
<thead>
<tr>
<th>Name (Pseudonym)</th>
<th>Sex</th>
<th>Age</th>
<th>Education Background</th>
<th>Years of Teaching Experience</th>
<th>School</th>
<th>Average percentages in Short Interview</th>
<th>Degree of MALL Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andre</td>
<td>M</td>
<td>41</td>
<td>Bachelor of Education &amp; Bachelor of Arts</td>
<td>16</td>
<td>Private School</td>
<td>84%</td>
<td>High</td>
</tr>
<tr>
<td>Dewi</td>
<td>F</td>
<td>54</td>
<td>Master of Education</td>
<td>36</td>
<td>Public School A</td>
<td>58%</td>
<td>Medium</td>
</tr>
<tr>
<td>Eva</td>
<td>F</td>
<td>50</td>
<td>Bachelor of Education</td>
<td>23</td>
<td>Public School B</td>
<td>39%</td>
<td>Low</td>
</tr>
</tbody>
</table>

Table 1. Demographic Information of the Teacher-Subjects
Andre found some successful learning activities when he implemented the MALL. He felt successful when all the students completed the tasks and turned them into the Google Classroom. He also felt successful when mobile devices could simplify his teaching activities. Similar information was obtained from the students taught by Andre. They stated that they had free access to their mobile phone. They stated that they used their phones to do the given assignments. They used it to translate some words, to find information related to the learning materials and to turn in their assignment to Google Classroom. When the students were asked about any learning activities using mobile devices that they remembered the most, they uttered different story from the teacher. The students remembered a learning activity when they needed to make an invitation card in their books, decorated the cards and uploaded it to Google Classroom.

Although he was comfortable with MALL, he felt that there were a lot of things to explore and to improve. More workshops on MALL and technology were expected by him. He had plans to continue using MALL in his classes. He felt that he could combine many learning applications to achieve the aim of the learning process. According to his idea, there were not any best learning applications. All applications must have its advantages and drawbacks.

In spite of his successful experiences, he stated that one of the challenges of implementing MALL is that not all of his students own mobile devices. There is one student who does not own any mobile devices. Therefore he could not implement MALL equally to all students.

The students all agreed that Andre seemed to know well on how to use mobile devices in teaching English. They thought that utilizing mobile phone in learning activities were more practical. They found it enjoyable since they did not have to do a lot of handwriting activities. However, they all agreed that the school needed to fix the Wi-Fi connection as this was the main problem for students.

Dewi–The Teacher with Medium Degree of MALL Implementation

Dewi is a 54-year-old English teacher who has been teaching English for more than 30 years. She has been learning English since she was in Junior High School. She continued her study in English Language Teaching until she got her Master’s degree. She attends workshops on English Language Teaching quite often, approximately four to five times a year. Dewi stated that she had been familiar with MALL for almost ten years ago, yet she just implemented it in her English classes in 2014. She explained that she implemented MALL regularly depends on the learning materials. Her activities starting from preparation, implementation, and reflection are described in Figure 2.

Before distributing the learning materials, Dewi made some preparations such as looking for some related information and references. She provided an example when she prepared to teach about a narrative text to the tenth graders. She needed to find some references that could be accessed by her students in the classroom.

Mostly, she allowed her students to find information from the Internet, to check out some words on a dictionary, or to ask students practicing their pronunciation. The students also confirmed that they were allowed to operate their mobile devices as long as it was for learning purposes. They had never experienced learning English or submitting any homework outside the classroom since everything was done during school hours. They generally used it for translating and finding some references.
Dewi shared one learning activity that she considered successful by using Edmodo since all the students participated well in the process. She asked the students to tell a story then recorded their voices and shared the results to Edmodo. Different experiences were shared by the students. One student shared his experience when he was asked to find dance and practice the dance moves in front of the class, while the two other students described an activity when they created a poem based on the message of a song. Dewi expressed that mobile devices could help learning activities. However, she felt a little bit uncomfortable using it due to several factors; one of them was feeling unfamiliar to operate mobile devices. She also admitted that she sometimes needed the help of another device, for example, a laptop, since she felt it difficult to read on a small screen on her mobile device. However, she would like to update her knowledge and skill in MALL implementation as well as to keep using mobile devices whenever necessary in her teaching and learning activities. To improve the practices, she would attend some workshops and have more discussions with her friends.

Dewi experienced a few problems because of many factors. The first problem was related to internet connectivity. She also felt that it was difficult to monitor the students since some students secretly used mobile devices for other purposes. There was also one student who did not own a mobile device, therefore, it was difficult to implement MALL fairly to all students. Last but not least, the problem came from herself who was lack of skill in operating applications in mobile devices.

On the contrary, all the interviewed students felt more comfortable in using their mobile devices since it was easier and faster for them to find references or meaning of some words. However, similar to the teacher’s opinion, the main problem during the implementation of MALL was the bad internet connection in the classroom. The students also expressed that it would be more attractive for them if the teacher offered more variety of teaching and learning activities.

Eva–The Teacher with Low Degree of MALL Implementation

Eva is a 50-year-old teacher who has been teaching English since 1995. She had learned English from formal education since she was in junior high school until she got her Bachelor’s degree. She did not have many activities outside the school since she said that she had much work to do from school. Thus, she did not attend many workshops on ELT. She admitted that the last time she attended a workshop was around eight years ago. Eva shared her activities in the implementation of MALL as described in Figure 3.

Eva considered that she probably did not implement MALL in her class since she and her students rarely utilized mobile devices during learning activities. She thought that by using mobile devices, she would have less interaction with the students whereas the students’ level of English was not too advanced. Therefore, she demanded more interaction with the students and remained in conventional teaching practices. However, she started to try using mobile devices in her class since 2015 although the frequency was very rare. There were not many ranges of activities related to the use of mobile devices in the class. In a very small frequency, generally, the students were only allowed to utilize their mobile devices to look for some ideas or information from the Internet. The students had similar answers related to the use of mobile devices in their English class with Eva. They stated that they might use their mobile devices as long as they had asked permission to Eva.
With very little frequency of mobile devices usage in the classroom, Eva did not need to do a lot of demanding preparation, and neither did she download any learning applications. All she had to do was just preparing her mobile device and browsing some websites for her students. Similarly, the students also did not have to do much preparation such as downloading learning applications since the teacher did not employ any specific application. However, they stated that they still need help from the printed dictionary because only rarely did the teacher permit them to access their mobile devices for an online dictionary. 

She felt that she had never experienced any successful learning activities that resulted from the use of mobile devices in the class. “I think I have never experienced it”, she said. On the contrary, she did feel fail on some occasions during the implementation of the MALL in her class. She was disappointed with the students who took all the information from the internet for granted. When asked about one learning activity using mobile devices that they remembered the most, the students mentioned that the activity was a debate. In this activity, the students were assigned into groups and were asked to find some facts or information related to the topic for the debate before performing in front of the classroom.

Despite the limited experience of teaching and learning practices that employ mobile devices, Eva admitted that she felt comfortable about it. In her opinion, the students could learn independently to find some ideas on the internet from their mobile devices. She also hoped that she could implement MALL more in her class although she needed more time to learn and explore more. Eva shared that she had checked some learning application, but she had never tried it to teach English. Therefore, she did not have any specific information on what application that she considered helpful for her teaching practices.

There were some reasons why Eva did not actively utilize mobile devices in her class for teaching and learning purposes. One of the reasons was because she felt that she had limited knowledge about MALL. It was also difficult for her to monitor the students during the learning process. Also, she also said that there was a student who does not have any mobile devices.

However, the benefits of a mobile phone were also felt by the students who felt it was easier to find ideas and information by using their mobile devices to browse the Internet. They indeed described some expectations for future activities. Although there was a rule for not using mobile devices in the classroom unless they got permission, they hoped that the teacher could intersperse the learning activities by employing mobile devices every once in a while.

**DISCUSSION**

The degree of MALL implementation in this study was categorized into three categories: high, medium and low. The categorization was inferred from the results of the short interviews with the English teachers in the preliminary session before choosing the main subjects. Generally, the results of the degree of MALL implementation were obtained from both teachers’ knowledge on the MALL and the frequency of the implementation.

**Preparing the Implementation of MALL**

The three subject-teachers, despite their degree of MALL implementation, arranged a preparation before implementing MALL in their classes. The preparation between the three subject-teachers is similar in some ways. The first thing that they do was pre-

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paring for the learning materials for the students. This is a very important stage that allows the teachers to find any information or references to be given to the students.

However, based on the teachers’ description for their preparation step, Andre –teacher with a high degree of implementation- appeared to have more primed preparation. Not only did he practice the application for himself, but he also guided the students to practice the application. Also, he also explored the app thoroughly to figure out strengths and weaknesses. Andre’s preparation could provide a portrayal of his exceptional skills and knowledge in the MALL. The skills are referred to as ‘Advanced Skills’ which required someone to grasp technological skills such as undertaking online programs (Miglani & Awadhiya, 2017). On the other hand, in the preparation stage, the other two teachers mentioned that they searched and listed some materials or websites that can be accessed by the students. Learning activities, specifically searching and sharing information, downloading-uploading things from the Internet through mobile devices can be recognized as ‘Basic Skills’ (Miglani & Awadhiya, 2017).

Implementing MALL in the Teaching Practices

Similar learning activities are found in the three teacher-subjects. The current study found that all of the teachers applied MALL in their teaching practices by allowing the students to use their mobile devices for accessing online dictionary to find meanings. According to the SAMR model developed by Puentedura, this kind of activities can be classified in the substitution level as the simplest activity that can be done through the use of mobile devices. In line with the findings of this study, another study described that most of the time, teachers conduct the same task that can be completed without using mobile devices. Such activity represents substitution in the SAMR model as the lowest level of technology implementation (Romrell, Kidder, & Wood, 2014). In this activity, mobile devices act as a direct substitute with no functional change. The teachers only substitute the function of the printed dictionary by using the online dictionary from mobile devices.

Practices of augmentation were displayed in the findings of teaching and learning activities by the teacher-subjects. In augmentation, the technology provides learners and teachers with various tools and functions to accomplish common tasks (Jati, 2018). According to the findings, Andre –teacher with the high degree of MALL implementation- mentioned that he tried to carry out a quiz to his students by using a learning application from their mobile devices. This finding aligns with what Jati (2018) stated in his article as the example of augmentation which instead of using pen and paper, the teacher distributes the quiz online.

The application of substitution and augmentation result in the enhancement of the learning process. According to Puantedura (2013), it is said that learning activities in the substitution and augmentation classification will enhance learning. Therefore, students’ learning process is further improved by the use of technology. They find it easier to look for words from their mobile dictionary rather than from printed dictionary. It is also more practical to carry out a quiz by using learning apps instead of printing papers for the students.

Meanwhile, to transform the learning activities by fully implementing technology in a classroom, the teachers need to conduct learning activities based on the modification and redefinition stages from the SAMR. Andre, and Dewi teacher with a medium degree of MALL implementation- also performed activities under the modification stage. Andre once asked his students to record their voices and made some suggestions which should be uploaded to the Google Classroom. Also, Dewi asked the students to make use of the application in their mobile devices and record their voices to check their pronunciation and also to tell a story that should be uploaded to Edmodo. The findings are consistent with some examples that on modification stage, students may work in pairs to record and re-record their oral presentations that will be shared electronically (Hockly, 2013). However, learning activities that fall within the redefinition stage of SAMR were not discovered. In redefinition, students could be asked to perform tasks which are inconceivable prior (Puantedura, 2013).

As shown above, obviously, the teachers have not yet fully implemented MALL in their classroom. The findings suggest a certain amount of teachers’ familiarity with mobile devices that can be referred to as ‘mobile literacy’ (Hockly, 2013). Teaching mobile web literacy is as important as is teaching basic literacy since it can be predicted in the future that students will rely more on mobile devices (Parry, 2011). Therefore it is pivotal for teachers to teach them on using the technology effectively. In digital literacy, the
use of mobile apps is very crucial and has great potential for shifting teaching practices (Hinze et al., 2017). Applying the whole SAMR stages, specifically, those that enable transforming conventional learning through the use of mobile devices can develop students’ mobile literacy in English Language Learning (Hockly, 2013).

Reflecting the Implementation of MALL

All of the teachers, Andre, Dewi and Eva agreed that using mobile devices could ease the teaching and learning practices. Andre and Dewi believed that by using mobile devices, the learning process could be more practical. In their opinion, students can turn in their assignment electronically despite their locations. The portability and practicality of mobile devices can create learning activities outside the classroom in which students may bring their mobile devices and complete their assignment everywhere (Chinnery, 2006; Miangah & Nezarat, 2012; Bezircilioğlu, 2016). Another benefit of mobile devices for learning activities is that it is easier for both students and teachers to discover plentiful information on the Internet through their mobile devices. Their opinions were also supported by the students who also stated that they felt helped and comfortable to find learning resources and meaning of words from their mobile devices. These opinions are in sync with previous studies that students can receive huge information and learn the meanings of new words from mobile phones in their hands (Chinnery, 2006; Bezircilioğlu, 2016).

All of the interviewed students expressed that they expect more learning activities with mobile devices. It indicates that students have robust perception and motivation toward MALL. It is revealed that students are more motivated to practice more by using mobile devices because they have positive perceptions on the use of mobile devices for learning (Hwang, Huang, Shadiev, Wu, & Chen, 2014). It is also found that language learning can be more effective because of students’ motivation to use mobile devices for learning (Sato, Murase, & Burden, 2015; Ushioda, 2013).

As described previously, for teachers either with a high, medium or low level of MALL implementation, the problem during MALL implementation was not all students own mobile devices. It is noticeably a fact that the availability of mobile devices can be limited for some populations (Chinnery, 2006). Shield and Kukulska-Hulme (2008) argued that the problem on mobile phone ownership must be taken into account since the cost of owning it can be a barrier for some.

Moreover, the obstacles were also related to internet connectivity and students monitoring. Coupled with the teachers, most of the interviewed students conveyed that they did have problems with connectivity for their mobile devices. Connectivity is one of the MALL characteristics. Therefore users must have access to the Internet (Miangah & Nezarat, 2012). If students and teachers do not have supportive connectivity, the process of MALL would not be able to run ideally. Not to mention, Chinnery (2006) confirm that connectivity needs to be concerned since not all students have access to the Internet.

Dewi –teacher with a medium degree of MALL implementation- stated that she had difficulties in reading in the small screen of her mobile devices. This limitation on MALL further confirmed previous studies by Thornton and Houser (2005), Shield and Kukulska-Hulme (2008), and Stockwell (2008), that the physical limitation of mobile devices, for instance, the small screen, can be troublesome for some people.

Furthermore, all teachers faced a similar problem on monitoring the students during the use of mobile devices for learning, although Andre had his solution to overcome this problem. As indicated by Park (2011), mobile devices are mostly used and enjoyed by students for entertainment purposes, for example listening to music, texting with friends or checking social media. Therefore, students are easily distracted and lose concentration which later impedes the learning activities (Hashim, Md. Yunus, Amin Embi, & Mohamed Ozir, 2017). This has become a constraint for teachers to supervise all students in the classroom. As a consequence, it is suggested for the teachers to properly introduce the potentials and benefits of mobile devices used for learning.

CONCLUSIONS

Both teachers and students showed positive attitudes toward the implementation of MALL in the classroom. They all have good perceptions of MALL and they expect to have more activities by using mobile devices in the classroom. It is also revealed that teachers with a high, medium and low degree of MALL implementation are aware of the potentials and possible usage of mobile devices for language learning. These are reflected by their opinions on the benefits of MALL in their classroom. Although they are familiar with MALL concepts and characteristics, the
use of mobile devices is limited. It is limited in the range of mobile applications since not all the teachers apply various applications in their teaching practices. It is also limited in terms of learning activities.

It gives a snapshot that the teachers need to seek for more information and practices of MALL to be more prepared in the implementation to enrich their teaching and learning activities and to overcome the challenges of MALL implementation. Because how students learn to use their mobile devices largely depends on how technology is implemented by the teachers. Professional supports such as a workshop or training session could provide more explicit notion on MALL. They do need to have high motivation to improve their knowledge and skills as well as to improve their teaching practices. Encouragement to implement MALL in their classes is also necessary. Finally, gaining full support from schools will also help both teachers and students in applying and developing MALL.

REFERENCES


