

CHAPTER I

INTRODUCTION

The objective of this study is to examine MALL (Mobile Assisted Language Learning) based scientific approach to improve student's vocabulary. This part will discuss about background of the study, statement of the problem, purpose of the study, significance of the study, scope and limitation, hypothesis of the study, and definition of key terms.

1.1 Background of the Study

One of the hard sections of learning the target language for English language learners is the acquisition of vocabulary. Linse (2006) said that vocabulary knowledge plays a significant part in language learning. Language capability of learners will be repair the whole by vocabulary improvement. It is one component that connects the four language skills all together. Vocabulary should be amalgamated into the teaching of those four skills-writing, reading, speaking, and listening. Teachers cannot teach vocabulary separately, except that the student's especially vocational high school learners will get confused and maybe frustrated in learning English. According to Cortazzi and Jin (1996), students who study foreign languages acknowledge that vocabulary plays a significant role in foreign language learning. According to Meara and Jones (1987), the amount of vocabulary mastery highly predicts language learning ability.

Burston (2012) underscored the importance of vocabulary by explaining that "without grammar very little can be conveyed, without vocabulary nothing at all can be conveyed." As the basis of language rather than grammar, vocabulary is more important (Ghadessy, 1998; quoted in Sripamong 2004) very little can be delivered without grammar; the more sentences they can make, the more vocabulary they have. If not, language learning will not occur. So it is known that the most common element in sentences is "Word" Because language consists of several sets of words

that have their own meaning. (Dickinson, 1987; quoted in Sripramong 2004).

Vocabulary learning has had several problems in the past decade. According to Berne & Blachowicz (2008) in vocabulary teaching there is a lot of uncertainty among teachers in best practices. Sometimes the instructional emphasis on learning says the teacher still does not know it. In other hand, Batialaufer (2000) stated “teachers who do not favors serious vocabulary work at advanced level should, nevertheless, pay some attention to symphonies as a factor interfering with comprehension”.

In addition, according to Rahmatillah (2017: 69). Students' difficulties in learning vocabulary are caused by several factors (1) the oral form in English is different from the written form (2) very large the number of words students must learn, (3) information about words has a limited source of information, (4) knowing word implicate many more than knowing its definition in dictionary, (5) understanding the grammar of words that are still lacking, (6) the lack of sound similarity causes the erroneous pronunciation between the original language of the student and English. Traditional methods such as exercise have made students tired of learning vocabularies, writing written words on paper or listening to teacher explanations passively, big problems with learning skills will arise with this. Khuat (2003), Nguyen and Uberman (1998). Vocabulary errors manifest one or more kinds of dissonance between the word and its con- text. The four dissonances that interfere with encoding by advanced learners are stylistic (dunk the chicken pieces in the beaten egg mixture); syntactic (the author purports that tobacco is harm- ful); collocational (i used to be a large smoker); and semantic (i was badly damaged in the acci- dent). On the other hand many functions of most large systems depend on users typing in the right words. New or intermittent users often use the wrong words and fail to get the actions or information they want. G.W. Furnas, et al (1987).

There are many problems in the class about vocabulary at the junior high school level. Vocabulary is the most important aspect to understand English because every skill in English definitely requires a vocabulary. Based on the first observation at public junior high school 4 Babat the problem of vocabulary especially in eight

grade are student have limited time, inability to listen, unable to distinguish the correct pronunciation and writing, teaching in the classroom is too boring because the teacher using speech method, less interaction between teacher and students .

In current year technology has a very important role. This also affects the education sector. Technology is very helpful to facilitate the learning process, both at the elementary level, junior high school and high school. Technology has its own role. The rapid advancement of information and communication technologies in the last years has created new opportunities for education (Reynolds & Anderson, 2015). Given that most people own mobile devices nowadays, learning can be extend beyond a traditional classroom (Wu, 2016). Technologies help overcome many limitations and obstacles in a traditional classroom, i.e. a lack of language-use opportunities, individualized learning, feedback and interactions (Ahn & Lee, 2015) and can offer a seamless learning experience, i.e. to learn anytime and anywhere Liu & Chen (2015).

Since the advent of computer-based, hand-held mobile devices, attention has shifted to the mobile devices as the vehicle of mobile learning. Within the specific context of mobile learning, mobile-assisted language learning (mall) that stemmed from computer assisted language learning (call) seized the attention of language learning with its notable feature “ anytime, anywhere” As learning principle (Kukulsak-hulme & Shield, 2008). As kukulsak-hulme (2009) stated that “mobile technology can assist learners at the point of need and in ways that fit in with their mobile lifestyles” (p.162). Godwin-Jones (2011) further suggests that “mobile devices integrate real-life interests and academic roles” On learning. He noted that the characteristic of mall would eventually improve “learner autonomy” (Benson, 2007), which indicated the learners’ learning responsibility would increase in this learning process. Stockwell (2007) considers that studying mall is a natural path of computer-based learning research in light of the current situation where “technologies themselves are becoming more pervasive, and the number of students who own mobile technologies is increasing at an impressive rate”.

However, re-searching to mall does not follow the pace of technological development, Ballance (2012). As previous reviews have shown Burston (2014), kukulska-hulme & shield, (2008), mall is mostly focused on behavioral applications, centering on tutorial tutorials, teachers rather than a pedagogical perspective where mobile devices can be effectively exploited to adjust curricular instruction for real-world student settings. Burston (2014) conducted a comprehensive review of current research at mall and found that more than 90% of mall's research had focused on using mobile devices. In learning outside the classroom. Only about 20 mall research studies focus on the use of mobile devices in the classroom.

With the nature of anytime and anywhere, the boundaries of classrooms have the potential to be solved by mobile devices (chan, et al, 2006; wong, chin & hsieh, 2011). Cellular devices allow students to cross the context of formal learning and informal, private and social learning spaces as well as the physical world and cyberspace. The portability of mobile devices and the multi-function of mobile devices afford spontaneous, seamless learning experience that connects in-class and out-of-class learning. It is acknowledged that the informal experiences outside the classroom would offer as meaningful learning opportunities as the formally structured learning environment established within schools. The outside classroom learning experience can strengthen the classroom learning by applying the learning context to other different environments. Besides, learning that takes place outside the classroom can become a relevant part of an extra learning context to classroom instruction.

With the increasing impact of mobile computer technology on society, the integration of technology in teaching and learning is becoming more prevalent. Mobile assisted language learning (mall) has been explored within computer-assisted language learning (call) research. Several studies have shown that mall supports language learning (Basoglu & Akdemir, 2010; Cavus & Ibrahim, 2009; levy & Kennedy, 2005; song, 2008; Thornton & Houser, 2005). Because mall offers features such as single-word pronunciation and distinctive language patterns, students are able to learn more vocabulary which look similar to or come from same word

categories. Mall may be attractive to low-achieving students with low self-efficacy in learning, because the technology may decrease their anxiety by allowing them to practice the language without having to practice face-to-face with others. Low achieving students may also enjoy language learning app games enhancing learning motivation.

Thornton and Houser have explored the effectiveness of learning via mobile phone on Japanese college students' vocabulary gains (Thornton & Houser 2003, 2004, 2005). In their 2005 study, participants who learned vocabulary through internet e-mails via mobile phone ($n = 13$) had significantly more vocabulary gains than those who learned through the web via pc ($n = 13$). The results of the second experiment showed that another mobile phone group ($n = 25$) gained significantly more vocabulary than the group using paper materials ($n = 43$). Thornton and Houser concluded that the regular messages sent by mobile phone could generate the spacing effect (c.f. Dempster 1987; Greene 1989), which facilitated vocabulary retrieval.

According to katemba (2019) his study intended to find the difference in vocabulary enhancement between students who were taught through call (computer-assisted language learning) and those taught through mall (mobile-assisted language learning) among grade 10 efl (English as a foreign language) students in Bandung, Indonesia. The result of this study is findings revealed that there was no significant difference in vocabulary enhancement between students using call and those using mall. The post-test results showed significant improvement in both groups, as both methods increased the students' vocabulary. Therefore, it can be concluded that call and mall are both effective methods for teaching vocabulary.

One of the most used features of mobiles in language learning is short message services - sms. It can provide some of the essential ways to give quick attention to words (Nation, 2001). It is possible to provide a word with its 11 definition, synonym and an example or more in an sms. It is possible to focus on a limited amount of information, since too much amount of information can be confusing and discouraging. They are encouraging to students, because they can study the lessons

provided for them via sms at any time and in any place that they prefer. Another optimal way of teaching vocabulary which is possible through sms is spaced presentation which is more effective than massed presentation. According to cognitive psychologists when two presentations of a word are farther apart (spaced presentation), the learners, performance on memory test is significantly better than when the two presentations are close together (Thornton & Houser, 2005).

Mobile assisted language learning is a teaching method which uses the mobile phone technology as a way of stressing learner centeredness and autonomy. Based on the different definitions provided for mobile learning, it is employing different technologies that makes m-learning different from other kinds of learning (O'malley, C., Vavoula, G., Glew, J., Taylor, J., Sharples, M., & Lefrere, P., 2003). According to O'malley et al (2003) mobile learning includes any kind of learning that takes place when the learner is not in a fixed state and he/she takes advantage of mobile technology. Generally, according to Geddes (2004) it is the kind of learning which takes place at any time and in any place, that is; it extends teaching and learning outside of the walls of the classroom. An important feature of this type of learning is that students feel responsible for their own learning. One of the most used features of mobiles in language learning is short message services - sms. It can provide some of the essential ways to give quick attention to words (Nation, 2001). It is possible to provide a word with its 11 definition, synonym and an example or more in an sms.

Based on Thornton and Hauser (2005) they used MALL to improve their students' vocabulary, they emailed their students three times a day and their research proved that the mall can improve students' vocabulary skills. Besides Derakhshan and Kaivanpanah (2011) have also proven that MALL can develop the knowledge of junior high school students, but they are not individually but use groups for communication. In other hand Katemba (2019) in his research said that the mall can improve English vocabulary. To improve that he texted his students. In one study, Lu (2008) had students learn two sets of English vocabulary words either through mobile

phones or by a paper-based format. Students who learned via SMS were found to understand more words than students presented with the paper-based tasks.

Related to the use of mobile technology, Whatsapp has been chosen to be one of the most popular among the researchers to investigate the effect of using it. Whatsapp is preferably used for many reasons. Ashiyan & Salehi (2016) also stated that Whatsapp is a tool that can be used for different educational purposes. This is because Whatsapp sends message through Internet connection that can be in the form of text, audio files, pictures, videos as well as one's location. Many studies found out new ideas on language learning related to the use of Whatsapp.

Hamad (2017) claims that Whatsapp can be a solution to the problem of teaching the meaningful and contextualized interaction in English teaching. The results of his research shows that Whatsapp can help the students to develop their listening skills, speaking skills, reading skills, writing skills as well as their vocabulary. Whatsapp was also claimed to help the students to learn from their peers' mistakes, to think in English, and to get immediate feedback from their teacher. Hani (2014) in his study: *The Impact of WhatsApp Group's Utilization of EFL Students' Vocabulary Writing Amelioration* showed that the findings imply a significant difference between the overall writing scores of the pretest and posttest of the participants who used journaling. Additionally, test of individual item scores shows that there are statistically significant developments in vocabulary choice and voice as two pivotal writing characteristics. The study can promote a favorable educational change by assisting teachers grasp the possible merits of WhatsApp electronic dialogue journaling to develop the vocabulary word choice and voice writing skills of their students. In another study, Castrillo, Martin-Monje & Barcena (2014) entitled "*Mobile-Based Chatting for Meaning Negotiation in Foreign Language Learning*" found out that using Whatsapp for foreign language is an effective strategy as students did noticeably improve their meaning negotiating skills, were able to understand and make themselves understood all the time. Moreover, the use of Whatsapp made students reduce their mistake and made the teacher change her usual

roles in the classroom. This study uses Whatsapp as the application is most common chat application between the students. It can facilitate and create group for learning and communication as well. Whatsapp is also cheap to activate, in fact, it is free to download and use Whatsapp in any smartphone. Starting with creating a group in Whatsapp, the chats between students and the teacher are analyzed. Based on the research above, researchers will use MALL as an alternative to develop vocabulary of eighth graders by using the WhatsApp group.

To espouse this research, in the implementation of MALL base the junior high school 4 Babat curriculum to improving student ability of vocabulary at eight grade, scientific approach is one of exact strategy that can use. The 2013 curriculum provides a new approach in teaching process as a demand in 21st century. It provides scientific approach to develop the students' skill, knowledge and attitude. Moreover, the scientific approach in 2013 curriculum focuses on the productive, creative, innovative and affective students through integrated skills, attitudes, and knowledge. These goals can be achieved by designing the effective and meaningful instruction to the students. Hence, the teacher was supposed to use scientific approach in teaching and learning process.

In fact, related to the issue of the global era, there seemed to be some problems in implementing 2013 Curriculum. There were three issues that led to the implementation of the 2013 Curriculum. Those issues are: (1) The changes in the learning process from teacher centered to student centered; (2) teachers are more stressed cognitive aspects. The matter of fact, (3) the teacher should also have to provide the same portion of the affective and psychomotor Aspects. 2013 Curriculum requires teachers to be more creative and innovative. Based on the phenomena above, it was needed the potential and creativity teacher to create the successful of curriculum implementation in teaching and learning process using scientific approach. Whereas in 2013 Curriculum, the teacher was the main figure in curriculum implementation. In line with it, Mulyasa (2013: 41) stated that the main factor to decide the Successful of curriculum implementation is teacher's creativity.

Good quality of teacher depended on how well she could teach in the classroom. The teacher should have competence and higher responsibility to do the planned program. In this case, the teacher was demanded to create the students to be productive, creative, and innovative in realization the aim of national education decided by several key of figure. The figure were related to the leadership of headmaster, teacher creativity, students activity, socialization, facility, sources of learning, contusive academic area, and participation of school committee. The teacher were supposed to comprehend the substance of 2013 Curriculum in term of scientific approach and its implementation in teaching and learning process even though there were effort by the government to increase the quality of teacher through the certification program.

Kemdikbud (2013) supports using scientific approach in the 2013 Curriculum. There are three points that become the focus in teaching and learning process with *Scientific Approach*, attitudes (affective), skills (psychomotor) and knowledge (cognitive). Attitudes refer “students know why”, skills refer to “students know how”, and knowledge refers to “what students know”. These three points are expected to make students affective, creative innovative, and productive. In other words, with these three points, students have soft skills and hard skills to live properly.

Scientific approach to learning is basically the same with the scientific method or scientific models commonly used in the process of learning science-science (Longbotham & Longbotham 2006; Windschitl, 2007 Braaten & Thompson; Schwarz, Acher, Reiser, Fortus, Davis, Schwartz, Hug, Kenyon, Krajcik, 2009; Keyes 2010). Scientific approach to learning is directly on the facts and the reality that exists around the student learning resulting in actually using observation and analysis in practice (Utanto et al., 2017; Gunawan et al., 2017; In'am & Hajar 2017). A more scientific approach engaging students in activities directly and help them associate academic learning with real-life contexts they face. Steps of learning with a scientific approach is generally known by 5 steps. namely, observe, ask yourself, try, analyzing, communicating (Utanto et al., 2017; Gunawan et al., 2017).

Learning by using scientific method or scientific approach is capable of creating an atmosphere of active learning, and can make students more creative and innovative thinking in the face of the material being taught (Setiawan & Wilujeng 2016; Wati Bharati & Hartono 2014). Nagl, Obadovic & Segedinac (2012), Susilo, Siswandari & Bandi (2016) and Sodik & Wijaya (2017) also revealed the learning scientific methods can make the monotonous atmosphere become interesting.

From the problem and explanation above, the researcher decides to carry out the study entitled “MALL (Mobile Assisted Language Learning) based scientific approach to improve student’s vocabulary”.

1.2 Statement of the Problem

Based on the explanation about the problem in vocabulary, the problem of this research is formulated into the following question:

“Is there any significant effect of MALL (mobile-assisted language learning) based using scientific approach on improving students’ vocabulary for eight grades at Public Junior High School 4 Babat?”

1.3 Purpose of the Study

Based on the importance of MALL (mobile-assisted language learning) above, the researcher wants to examine effect of MALL (mobile-assisted language learning) based using scientific approach on improving students’ vocabulary for eight grades at Public Junior High School 4 Babat.

1.4 Significance of the Study

1.4.1 Theoretical Significance

For the theoretical, Mobile phones have been identified as potential platforms that can assist in the language teaching and learning process (Abdullah, Hussin, Asra & Zakaria, 2013; Demouy & Kukulska-Hulme, 2010; Jarvis & Achilleos, 2013).

MALL has shown to be feasible for language learning. In most of the studies, in the past two decades on MALL, the vocabulary learning skill has been the target skill (Duman, Orhon, & Gedik, 2015; Kim & Kwon, 2012). Using mobile technology in this way not only takes instruction outside of the classroom, but it also brings language learning out into the real world.

1.4.2 Practical Significance

- a. For teachers, the result of this research will help teachers to get a solution on how to improve the vocabulary
- b. For students, this study will make easier to understand and develop their vocabulary skills
- c. For researchers, will be used as the experience on how to conduct good and appropriate research

1.5 Scope and Limitation

The scope of this study is the students of eight grade at Public Junior High School 4 Babat. There are 2 classes and the total of the subject are 48 students. The limitation of the study only focuses on active and passive vocabulary at eight grade in public junior high school 4 Babat.

1.6 Hypothesis of the Study

In order to answer the research question, the following Hypothesis is proposed: The null hypothesis (H0) and the alternative one (H1). In this study, the null is rejected and the alternative one will be accepted.

H1 = There is significant effect of MALL (mobile-assisted language learning) based scientific approach to improve students vocabulary for eight grade at Public Junior High School 4 Babat.

1.7 Definition of Key Terms

a. Vocabulary

Vocabulary is a roster of words as a basic component of language acquisition that has expressions or forms and contains aspects, namely the use of words, meanings, forms (pronunciation and spelling).

b. Active and passive vocabulary

Passive vocabulary is when students meet these words they will immediately understand and will recognize the vocabulary. What they might not say. While active vocabulary is a type of vocabulary taught by the teacher to students and students are expected to use it properly and correctly.

c. The important of vocabulary

Vocabulary learning is very important for people who learn English both as foreign language and as second language. Without vocabulary the students can do anything because the basic knowledge to master in four skill (listening, speaking, reading, and writing) is vocabulary.

d. Teaching vocabulary

Teaching vocabulary is a pivotal aspect in learning a language as languages are based on words.

f. MALL (Mobile assisted language learning)

MALL is the use of mobile technologies in language learning. By using MALL, the learning process will be more easy and interesting. The researcher uses WhatsApp Application as media because WhatsApp is one part of MALL.

g. WhatsApp

Whatsapp is the most common chatting application to use among the students, students do not need to have computer, it is attainable and it does not cost much.

h. Scientific approach

Scientific approach is defined as the process of finding out information in science, which involves testing the ideas by performing experiments and making decisions. There are five steps of applying scientific approach in teaching learning process, they are observing, questioning, experimenting, associating, and communicating.

