THE EFFECTS OF IMMERSIVE MULTIMEDIA LEARNING WITH PEER SUPPORT ON VOCABULARY, GRAMMAR, AND MOTIVATION

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Abstract: This study investigated the effects of the immersive multimedia learning technique with peer support on performance in English in terms of vocabulary, grammar, and motivation. The quasi-experimental design with pre-test and post-test was employed for the study. The first factor was the strategy of learning, namely the use of immersive multimedia learning with and without peer support, while the second factors comprised achievement in English. 80 first-year university students enrolled in an English as a foreign language course were selected for this study and the treatment lasted for eight weeks. Data were analysed using one-way ANOVA. The findings showed that there were no significant differences in performance for vocabulary, grammar, and motivation between the students who engaged with and without peer support groups. It can be concluded that the use of immersive multimedia learning with and without peer support groups improve their motivation but did not significantly improve their vocabulary and grammar.

Keywords: peer support, immersive multimedia learning, motivation.

English becomes more important in Indonesia because of globalisation whereby students have to compete with foreigners who are coming to Indonesia either for the purpose of studying or doing businesses (Yuwono, 2005). Many speakers of other languages are learning English every year. The English language has been introduced to public school systems from primary school grades. English language is also used as the medium of instructional for teaching science and math. A major issue is that weaknesses in English mastery are carried forward from the primary levels to the secondary levels and later to the university level. Many universities require English as one of the requirement for admission or graduation. In addition, it is estimated many young learners learn English from public education, the private English instruction. According to the English Proficiency Index (EPI) within the next decade, as many as two billion people are learning English at any given time (EF EPI 2011).
English subject has been taught and learned by university students for many years (Dardjowidjojo, 2002; Ibrahim, 2004). Many methods of teaching and learning have been used to improve English language skills (Krashen, 1982). Some of them are traditional method, communicative language teaching, and cooperative learning, etc. (Krashen, 1982; Corp, 1989). However, the methods used by teacher to improve language performance are still insufficient. The use of appropriate methods and approaches in teaching and learning English are the important things to consider. Nowadays, teaching and learning English language tends to use traditional method that focuses on direct teaching vocabulary, grammar, reading, listening, and conversational patterns. The correction is given whenever students make mistake (Kweldju, 2002).

The low mastery of English in Indonesia is due to many reasons. Firstly, English is classified as a foreign language (Lauder, 2008). Students are only taught basic communicative competence in English at the third year of elementary school (Kurniasih, 2011). English is used and spoken in the classroom, but outside the classroom they revert to their mother tongues (Liando, Moni, Baldauf & Richard, 2005). Secondly, factors such as large classes, limited teaching facilities, poor attitude toward English, teacher qualification and experience, and inadequate assessment tools inhibit the proper teaching of English (Nurkamto, 2003; Djufri et al., 2011).

Gibbons (2002) suggests the use of an immersive and linguistically and culturally rich environment, and employ a range of learning strategies to bring the process of meaningful learning on the language skills. The application of the appropriate methods or approaches and strategies play important roles to master a second language. For example, if someone wants to learn and master English language quickly, he or she should stay in the country where English language is used.

One of the most promising strategies in improving the quality of teaching and learning English is through the use technology or multimedia supported lessons (Salaberry, 2001). Multimedia is the use of multiple forms of media in a presentation (Schwartz & Beichner, 1999). It is the combined use of several media, such as movies, slides, music, and lighting, especially for the purpose of education or entertainment (Brooks, 1997). Besides, multimedia can improve students' performance and help teachers to enhance teaching and learning material development and syllabus design (Nguyen, 2008; Coiro, Knobel, Lankshear, & Leu, 2008).

It is acknowledged that the significant role multimedia play in scaffolding language and learning for learners whereby reflecting in the teaching learning process. The learning process between peer group and Without Peer is not different in term of immersive multimedia input. Working with peers enables students to practice their English immediately instead of working alone. They can share knowledge and solve the problem being faced (Kagan, 1995).

Many university students in Indonesia encounter difficulties in learning and communicating through English language automatically and effectively particularly in relation to critical thinking when they continue their studies abroad (Philips, 1994; Hasanah, 1997). The specific difficulties are shaped not just by unfamiliarity with English per se but by the linguistic character of Indonesian, the approach to English learning in Indonesia, and
what happens when the two different pedagogical and linguistic traditions intersect (Novera, 2004). Teaching methods for English language play an important role in term of improving oral production skills.

The teaching of a second language using the immersive method has been successfully demonstrated in Canada in the teaching of French among non-native speakers (Alberta Education, 2010). The Canadian immersive programs were introduced in 1965 and employed first language (L1) learning methods to teach a second language (L2) to elementary pupils. The focus was on creating an authentic or real environment to learn French in the classroom for the learners to acquire the language through integration, context-based meaning and use, communicative skills, and functional applications (Tallinn, 2005). This method was highly effective and was later extended to the teaching of foreign languages (Curtain & Dahlberg, 2004; Lenker & Rhodes, 2007). However, in the Canadian method, the teacher played an important and central role and was as the model or driver of the language being learned.

The standard approach in teaching a second or foreign language in universities is the use of the direct method where everything about the language is explained or presented to the students by the instructors (Novera, 2004). Students may then individually receive additional guidance or practice by listening and rehearsing to selected audio recordings in the language laboratories. Learning is presumed to occur through cognitive activities such as code switching and as well as modeling strategies and self-checking as students try to mimic the recordings they hear. The use of immersive methods among older learners has not been sufficiently studied. With easy availability of multimedia resources on the web, the astute collection of a variety of these files can be used to provide the contents and structure for the immersive and authentic experience of the target language. With multiple and complex inputs of the use of the target language the students go beyond mimicking the sentences. From the inputs, they can discern the nuances of the language as well as the tonal and contextual applications of the terms in developing the feel and grounding of the language.

The study found that integrative motivation was superior to instrumental, later investigations demonstrated that in situations where the practical value of the second language is necessary. In addition to the study by Gardner (1985), several empirical studies by other researcher also proved that both types of motivation have positive effects on the level of proficiency achieved by different learners and one type may be more effective than the other under certain conditions. Nowadays, English is viewed as a utilitarian tool for science, technology, national development and modernization as well as a key element in furthering a career, even though students approach the learning of English with instrumental motivation, many of them are very successful in developing proficiency in English.

This indicates that the relative importance of instrumental or integrative motivation depends to a large extent on the context in which a new language is learned (Wang, 2009). Besides, a number of studies have also been conducted in term of motivation and multimedia supported language learning. Collins (2011) found that multimedia supported learning for L2 improved student motivation for learning. Another contradicted study with the present study is King (2002) who reported that the use of multimedia films can improve students’ motivation in learning a second language. The study reported that showing a complete film enhances student motivation to such an extent that students are visibly impressed by the
amount of English they can figure out on their own. In addition, as far as student motivation is concerned, entertaining films are sometimes enjoyable and relevant to learners’ appreciation of popular culture (King, 2002).

Ilter (2009) investigated the effects of using multimedia to improve motivation among learners of English as a foreign language (EFL). The study involved 350 university students which consisted of 186 male and 164 female students and found that both female and male students perceived the use of multimedia in the in the classroom motivated them. This previous study suggested that the use of multimedia such as internet, computer-based authentic materials, video, CDs, youtube, and distance education would be a good and an effective way to solve students’ motivational problems in the classroom.

Language is also more effectively acquired in a social context (Levelt, 1993). Learners can benefit from additional guidance and inputs from peers or other learners as they master the new language. This is especially useful and easy among adult learners who already have the ability to evaluate diligently. Thus, for this study dyadic groups were created together with the immersive strategies to provide the learners with peer support and a mechanism for evaluation and immediate feedback during reading and speaking exercises.

Peer Support consists of activities such as listening, assessing, giving feedback, correcting and discussing that a group member performs in assisting his or her partner to acquire oral skills such as pausing, phrasing, stressing, intonation, rating, and integration in the contexts of reading and speaking. Motivation is defined as the attribute that moves learner to do or not to do something in the language learning (Broussard & Garrison, 2004). Motivation in this study is measured by simplified Keller’s (1988) questionnaire model that defines motivation in terms of attention, relevance, confidence, and satisfaction. This questionnaire is given to students after the treatment to measure their motivation.

Motivation is of the most important factors to be taken into consideration in the teaching and learning process of a second language (Wang, 2009). Broussard and Garrison (2004) broadly define motivation as the attribute that moves learner to do or not to do something in the language learning. Motivation is the attribute that moves learners to learn English through multimedia supported immersive strategies to improve their English language acquisition. Motivation can be manipulated through certain instructional practices. Wang says that many experts have conducted research on learners’ motivation in the learning a second language.

Gardner (1985) is known as one of the famous researchers in terms of motivation in language learning. The other studies have been conducted by Brown and Harmer in terms of language learning motivation (Wang, 2009). Gardner (1985) claimed that motivation is the primary factor to influence learners on new language learning. He further said that motivation for language learning is not only goal orientation. However, it includes the combination of effort, desire to reach the objective of learning the target language, and favorable attitudes toward learning the new target language.

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In addition, immersion is a form of experiential learning where the learning processes involve deep engagement and absorption with the target language through all the senses. Immersion programs have been implemented in many countries such as United State, Canada, Spain, New Zealand, etc., with the purpose of improving students’ second language acquisition and learning (Tallin, 2005; Cummins, 2000). Immersion is a relatively new development within bilingual education, but it is an option (and a term) that is being adopted more and more widely. Immersion programs aim to provide the quantity and quality of involvement in the use of target language that ensure the development of a high level of proficiency (Johnson & Swain, 1997).

The need to have immersion program for L2 or foreign language as a result of students’ achievement are not significantly satisfied. Many students have studied English at school, but their ability to use the target language still far from the expectation. The focus of teaching learning process nowadays is on grammar, memorization, and drill had not provided them with sufficient skill to work in English or to socialize with English speakers (Johnson & Swain, 1997).

Language immersion program is the educational programs in which two or more languages are used for academic instruction. One of the languages is the students native language (L1) and the other is a second (L2) or foreign language. In this case, 50% of the curriculum is taught by using the second or foreign language for one or more grades (Tallinn, 2005). Total immersion program use fully the target language in the teaching and learning
process (Cummins, 1998; Tallin, 2005). Students in most immersion programs speak the same L1.

The goals of implementing multimedia immersive learning with Peer Supported are to enable learners to improve their second language learning in terms of oral production skills for reading and speaking based on various recorded native speakers input. Learners can practice the target language with their peers after accomplishing the session of the learning process. They can do that repeatedly without limitation of time, for instance. Also, learners can make all of their comments in class to one another and their teachers soon after they acquire basic proficiency in the target language (Tallinn, 2005). Therefore, they are encouraged and indeed expected to use the English once they have acquired basic proficiency in it to promote acquisition and motivation.

Studies have been conducted language educators in terms of application multimedia in the language teaching and learning process especially English language. The language educators have conducted some varied studies on the area of language components and language skills. A study conducted by Lustigova (2012) on the ICT challenges in learning Business English for intermediate students found that (1) ICT provides powerful environment of learning tools, in turn encouraging the students themselves to be interested and actively involved in the teaching-learning process. (2) Implementing ICT in Business English classes is relatively straightforward as business students are quite receptive to technologies. (3) Overall, the results of meaningfully merging ICT into the classroom produced students who were noticeably more confident and capable of supporting their own language-based success, as well as a classroom where learning was made tangible. (4) By using ICT tools which focused particularly on language use, Business English was able to be exploited in the classroom to both the challenge and the interest of the learner and teacher simultaneously. (5) As the students developed communicative competence in Business English, the teacher directly benefited from a more interactive classroom atmosphere and new perspectives were shared by all. (6) Using ICT tools aided the students’ sensory perception: they could listen, read and see the material at the same time. (7) In general, this study found that by using ICT in the classroom improves students four language skills; listening, speaking, reading and writing (Lustigova, 2012). In addition, a study has been also conducted by Shahrina Md Nordin (2010) on learning English literature through multimedia found that it is an effective way of improving students’ learning English literature significantly.

The immersive multimedia method in this study uses multimedia immersion program. It means that the target language (English) is as the main instruction in the process of teaching and learning activities (Lenker & Rhodes, 2007). The program is designed for first year university students. This method of teaching and learning English or any language in this world has been used for more than thirty five years (Cummins, 2000; Lenker & Rhodes, 2007). During the time, the teacher plays an important role in the teaching and learning process. Teacher is as a model of presenting teaching and learning materials in the classroom (Cummins, 2000; Tallin, 2005; Lenker & Rhodes, 2007; Alberta Education, 2010). However, in the current study, the role of teacher is limited. Teacher is a facilitator or an organizer in the classroom. The students do activities either in the classroom or outside the classroom to
immerse themselves by listening and watching video clips and recordings provided by teacher. The students may learn with or to master the contents of the learning materials.

METHOD

This is an experimental design in nature. Intact classes were used for this study to retain the actual learning environment and for easy manipulation and control of the research variables. The immersive multimedia learning strategy with peer support activities were used for the treatments. Sample of the study were 80 freshmen from four existing classes at Syiah Kuala University English department, Banda Aceh. All were enrolled in the same course but were taught by different instructors. Intact classes were used assigning 40 students using immersive learning with peer support and 40 students without peer support. One class employed peer support activities with pair group formed based on students’ choice of partners. The other group worked without peer. The topics chosen for the purpose of this study were based on the first year English syllabus. Authentic native speakers’ inputs from video clips (YouTube, VOA, etc.) were used in this program. Data of this research were scores of pre-test and posttest for vocabulary and grammar. In addition, a set of questionnaire was used to identify students’ motivation. The pre-test was given to both groups before conducting the experiment, whereas questionnaire on motivation was given after the treatment as well as posttest for vocabulary and grammar. The data from pre and post-tests, and questionnaire were analyzed by using descriptive and inferential statistical methods involving one-way ANOVA.

FINDINGS

The Effect of Immersion to Vocabulary and Grammar

This study revealed a significant effect of immersive multimedia learning with peer support to increase vocabulary and grammar mastery. Students who received immersive multimedia learning with peer support achieved greater mastery on grammar and vocabulary compared to those who received conventional teaching techniques on the same subject matters. Results of analysis this finding appears in Table 1 and the research question proposed to validate the effect is set out as follows:

Research question 1

Are there significant differences in terms of (a) vocabulary, (b) grammar mastery between the students who received immersive multimedia learning with peer support and those who did not receive such support?

H_{1a}: Students who engaged in immersive multimedia learning with peer support will perform significantly better in English in terms of vocabulary than those who engaged without peer support.

Table 1 reports the means, standard deviations, and results of ANOVA for Gain in Vocabulary by treatment. Students in the peer supported group reported a mean gain score of $\bar{X} = 2.55$ with $SD = .87$ while those in the without peer group reported a mean gain score of $\bar{X}$

= 2.45 with SD = 1.03. The ANOVA test gave F (1,78) = .217 at p = .642. As p > .05, H1a is rejected. There is no significant difference in learning vocabulary by the treatment strategies.

Table 1. Means, Standard Deviations, and results of ANOVA for Gain in Vocabulary by Treatment

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H1b: Students who engaged in immersive multimedia learning with peer support will perform significantly better in English in terms of grammar than those who engaged without peer support.

Table 2 reports the means, standard deviations, and results of ANOVA for Gain in Grammar by treatment. Students in the peer-supported group reported a mean gain score of 1.62 with SD = .70 while those in the Without Peer group reported a mean gain score of 1.65 with SD = 1.00. The ANOVA test gave F (1,78) = .017 at p = .898. As p > .05, H1b is rejected. There is no significant difference in learning grammar by the treatment strategies.

Table 2. Means, Standard Deviations, and results of ANOVA for Gain in Grammar by Treatment

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The Effect of Immersion to Learning Motivation

Learning motivation incurred from the answers of questionnaire and observation indicate improvement on the students who received immersive multimedia learning with peer support compared to students who received conventional classroom teaching. Table 2 presents the finding of statistical analysis and the research question 2 is the start of discussion on the finding.
**Research question 2**

Are there significant differences in terms of motivation between the students who received immersive multimedia learning with peer support and those who did not receive such support?

H₂ : Students who engaged in immersive multimedia learning with peer support will report significantly higher motivation than those who engaged without peer support.

Table 3 reports the means, standard deviations, and results of ANOVA for motivation by treatment. Students in the peer-supported group reported a mean score of \( \bar{X} = 89.00 \) with SD = 9.15 while those in the non-peer-supported group reported a mean score of \( \bar{X} = 88.45 \) with SD = 10.02. The ANOVA test gave \( F (1,78) = .066 \) at \( p = .798 \). As \( p > .05 \), H₂ is rejected. There is no significant difference in motivation by the treatment methods.

**Table 3. Means, Standard Deviations, and Results of ANOVA for motivation by Treatment**

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**DISCUSSION**

Analyses of the data by treatment methods found that the immersive multimedia learning technique with and without peer support did not significantly improved students’ vocabulary and grammar. It seemed that the vocabulary and grammar should be taught and learnt separately and consciously to improve their achievement (Rose, 1995; Tallin, 2005; Alberta Education, 2010). In terms of vocabulary and grammar mastery in the present study found that no significant differences were obtained between the groups. This was due to the limited number of new vocabulary presented in the lesson. Each lesson provided in the clips and review texts for students and consisted of words and sentences that were repeated or used again in different contexts. For example, the first clip presented about introducing oneself which and covered the words hi, hello, hey, how are you, good morning, what’s up, name, live, age, job and etc., and the next lesson would also use the related words and phrases as presented in the first clip. This condition was applied to all clips and lessons for vocabulary and grammar patterns. This was the reason why there were no significant differences in vocabulary and grammar between the groups.

Analyses of the data found that there was no significant difference in terms of motivation by treatment method. This finding is contradicted by Collins (2011) who reported that multimedia supported learning for L2 improved student motivation in a Japanese university, and by Kim (2000) who reported that students in Korea improved their motivation when using multimedia instruction. King (2002) too reported that the use of multimedia films
improved students’ motivation in learning a second language while Ilter (2009) also reported significant improvements in motivation for students using multimedia to learn English as a foreign language (EFL).

This study found no significant differences in motivation levels for using the lessons because all the students reported similar scores for attention, confidence, relevance and satisfaction for both treatment methods. Both groups saw the relevance of the video lessons in improving their oral skills, enjoyed the simplicity of the using and engaging in learning with them, and felt that they benefitted from using them. The factor of relevance was boosted by the integration of the video clips with the on-going lectures and classroom activities as the clips followed the syllabus of the course very closely and for all practical purposes, the viewing assignments were seen as homework or oral practice exercises that added value to the classroom lectures. The practice sessions were also conducted in private and at the students’ convenience. Students completing the lessons would also feel satisfied as engaging in and completing the video lessons also meant that they were abreast with the progress of the course and other classmates. The similar responses obtained also showed that the method was equally well accepted tor use individually or with peer groups.

CONCLUSION
This study investigated the effects of multimedia supported immersive learning with and without peer-support to improve students’ performances in term of vocabulary, grammar, and motivation. The findings showed that the immersive multimedia learning with vocabulary and grammar, but for motivation. So, the use of immersive multimedia learning with and without peer support improve significantly students’ motivation.

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