JURNAL 2

by Ari Setyorini

THE USE OF INTERACTIVE MULTIMEDIA IN ELT TO ENHANCE STUDENTS' AUTONOMOUS LEARNING

Ari Setyorini
arisetyorini@gmail.com

Masulah
mmasulah@gmail.com

English Department, University of Muhammadiyah Surabaya
Jl. Sutorejo 59, Surabaya

Abstract

Multimedia has been broadly known for its effectiveness to improve student's language acquisition, particularly in TEFL. The ability of multimedia to perform authentic audio and visual modalities is very important for English learners because it will help them to acquire better understanding about English. The basic role of multimedia in classroom is as a learning source from which students can use interactively without depend much on teacher. This study aimed at knowing the use of interactive multimedia to enhance EFL students' autonomy and self-efficacy. Furthermore, the study described three prominent issues, namely interactive multimedia, autonomous learning, and self-efficacy that were explored in the teaching process. The research was done qualitatively by observing and interviewing tenth-graders of Senior High School about the implementation of multimedia in their learning activities. The interactive multimedia designed to meet the goals of learning were used to serve the materials, assignments, and assessment integratively. Each student must follow the learning process through the direction of interactive multimedia, while the teacher was only as the facilitator. Through this study, it could be seen that the strategies of teaching using interactive multimedia were carried out very well and met the goals. It was also found that using interactive multimedia was one of the best strategies to facilitate students to experience autonomous learning, motivate student's self-efficacy to be more engaged in the learning process and create more interactive learning situation.

Keywords: Interactive Multimedia, ELT, Autonomous Learning, Self-Efficacy

1 INTRODUCTION

Multimedia has become a newborn techno-media which recently witnessed profound increases in its form. It evokes sorts of talks and studies over the researchers across the disciplines (Kassim & Ali, 2007; Faizah, 2009; Mulyanto & Syahman, 2009; Coelho, 2010). Multimedia itself is enormously utilized in educational context by which to describe and unite the roles of video and audio cassettes, printed text and handbooks in teaching learning process (Collins, Micahel H, and Jerry W, 2002). Therefore,

ISBN: 970-602-294-066-1

multimedia is aimed traditionally to present learning materials in interactive ways which incorporates the use of a computer environment such as video, audio, text, and images in teaching learning process.

The roles of interactive multimedia and its effectiveness have been the subject of many studies. In fact, researchers have shown that an interactive learning environment can generate effective instructions and learning systems. In different researches carried out by Mayer, results indicate that using multi-modal instruction is more effective than using any single mode (1997, 2001). In other words, this finding demonstrates that media do impact learning, through the instructional possibilities that they enable. For example, based on Mayer's research, one could state that when it is used appropriately, the video medium should be more effective than cassette, since the latter cannot provide visual information. The presentation of ideas in visual form has proven to be particularly important as it critically helps the educational process. In a review by various researchers of studies who have investigated the effectiveness of multimedia in learning suggested that the people who used computer-based multimedia instruction performed better in terms of test scores, compared to those who received instruction through traditional classroom teaching.

Due to the plentiful benefits of multimedia, from the viewpoint of teaching English, they will help learners in many aspects. The modes of multimedia such as video, sound, and texts will take roles as authentic multimodal compositions by which they bridge English learners' acquisitions to easily understand the presented learning materials in English. Therefore it becomes a learning source in the classroom which can be used by the students without depending much on the teachers. Of this case, the perspectives of Teaching English as a Foreign Language (TEFL) see multimedia giving more centeredness on the students' autonomous learning and self-efficacy. As the essence of TEFL itself is to acquire L2 or target language that multimedia will give real examples of natural or authentic languages from English native speakers. Students can therefore increase their abilities on English skills (listening, speaking, reading, and writing) and English components (vocabularies, pronunciation, and grammar) by self-study, so that they can do self-correction, by which the students develop their confidence and independence on learning English.

The autonomous learning and self-efficacy formed by multimedia learning are essentially in line with the practices of English teaching in curriculum of 2013 (C13) in Indonesia. It is reflected through the essence of autonomous learning and self-efficacy themselves. The autonomous learning as explained by Taylor (2000), is traditionally knowledge constructed merely from the students and the teachers just become a facilitator in learning instead of a presenter of information (Kember, 1997). Besides, self-efficacy, according to Piper W. (2000), is students' judgments about being able to perform in particular activities. From the definitions, the implications of both autonomous learning and self-efficacy on the teaching English allow the students to choose what to study and how to study.

Students with the scientific approaches offered by curriculum of 2013 will automatically be encouraged to boost their independence and confidence in learning English. They do not depend on the teachers as a learning source. In this case, a lot of schools are using technology to ease learners in learning English and multimedia is no exception. Therefore, this research is conducted to know the use of interactive multimedia to enhance EFL students' autonomy and self-efficacy in Indonesian TEFL settings.

2 METHOD

This study is descriptive and qualitative in nature. It focuses on observing, interpreting, and understanding the collected data to find the enhancement of student's autonomous learning and self efficacy. Cresswell (1984) states qualitative study in nature is conducted inductively, meaning that the study begins from data collected from the field and analyzed. This research applied descriptive method since it attempts to describe characteristics and events that exist (Kamil, 1985). The research was conducted in Senior High School of Muhammadiyah 7 Surabaya, class of MIA, the tenth grade.

3 DISCUSSION

3.1 Interactive multimedia

Multimedia has been broadly known for its effectiveness to improve student's language acquisition, particularly in TEFL. The ability of multimedia to perform authentic audio and visual modalities is very important for English learners because it will help them to acquire better understanding about English. To illustrate the use of interactive multimedia in the research, this part of discussion will describe the features and content of interactive multimedia used.

3.2 Main Screen Design Features

Main screen design play a significant role to the multimedia. An effective screen design causes learners to develop and maintain interest in lesson content, promotes the engagement of the learner with the material, and facilitates deep processing of important information (Hannafin and Hooper, 1989). In this multimedia, the main screen was design to show the menus of the media, those are: standard of competence, material, observing, questioning, exploring, associating and communicating. It can be seen from the main screen menu that the multimedia was designed to accommodate the five phases of scientific learning as a method of learning which is expected by the curriculum of 2013. The menu screen contains navigation buttons that hyperlinked to the selected part.

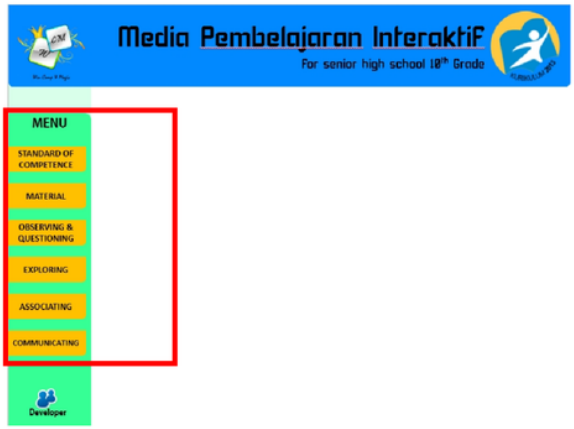
The menu of standard of competence consists of the core competence of the topic lesson. The standard of competence here was cited from the curriculum of 2013 for the tenth grade of Senior High School. The menu of material comprehends the outline of the lesson. Furthermore, the display was made in the form of table, chart or diagram so that the material is presented more systematically. This strategy is to avoid a long and wordy explanation which might make students difficult to understand the material.

The multimedia is orderly set up based on the five phases of scientific learning method, namely: observing and questioning, exploring, associating, and communicating phase. Whereas the five phases of learning which accommodate the need of scientific learning method were developed using a combination of text, image, and video. The phases are ordered based on the level of difficulty, from the easiest exercises to the most difficult ones. The phase of observing and questioning gives the students an opportunity to learn by themselves the provided material. In this phase, the students should observe the pictures and answer some questions related to the topic. Here, the students are expected to have some inquiries of the topic in their mind. From the questioning stage, the students are directed to collect any possible information that may relate to the material and answer the questions. The whole learning process here are done through the multimedia.

Next stage, the students associate the pictures and the material into a meaningful concept. The associating part can be designed with quizzes. At the end, the students are

expected to be able to communicate the knowledge into more orally applicable exercise. The communicating phase performs games that support the students to use English in communicating the topic of discussion. The last part is evaluation phase. In this case, multimedia attaches some exercises to evaluate student's understanding about the material that has been explained. Figure 1 shows each scientific phase in multimedia.

Figure 1



3.3 Text

Bailey et al suggest that it should not be more than two or three types and sizes of fonts be used per screen (1997) in the multimedia. Here the research uses two fonts, it is times new romans for the content and exercises and arial for the instructional words. Garner adds that one font per screen be used unless certain material needs to be emphasized. In this case, varying the size and font of the texts can be used to attract attention.

3.4 Animation and Sound

The interactive multimedia program was built to cover some of main topics in English for the tenth grade of Senior High School. It was designed and implemented by integrating different multimedia elements by using authentic audio and visual modalities to deliver the material interactively. It means that the text, images, sounds, and video used in multimedia were based on the topic of learning, student's interest and authenticity. Special attention was given to the interactivity user control, vivid colors and animation to make it more attractive and different than traditional way. It is generally recognized that the use of animation can offer many subtle benefits (Rieber, 1994) such as highlighting important information, heightening student's interest, facilitating recall. Here, the animation is congruent to the learning task, so it can offer instructional benefits to the student.

When discussing about describing people, the design of multimedia should underline the animation used. The selected images are pictures of people who attract students' attention. For instance, the pictures of artists, famous figures, or even animated figures and famous cartoon characters. Meanwhile the features were implemented within a user-friendly interface. Figure 2 shows some of the animated pictures that attached in the multimedia.

Figure 2

3.5 Quiz

The exercises in the multimedia were created using *Ispring quiz maker*. The types of exercise in the multimedia are varied, such as: true/ false, multiple choice, matching, filling in the blank, or sequencing. The exercises were designed to enable students to do self-evaluation and correction. After each attempt, the students will receive feedbacks and grades that they can use to be improved in the next attempt. This condition will allow them to manage their own learning which means that they can learn at their own pace. Those who manage to get good scores can proceed to the other activities, while those who don't, they can review their attempt and improve their understanding. Figure 5 illustrates the quizzes in the interactive multimedia.

Figure 3

3.6 Autonomous Learning

The basic role of multimedia in classroom is as a learning source from which students can use interactively without depending much on teacher. Using Multimedia in the EFL teaching learning context will not change students' learning behaviors directly, but it aims at building autonomous learning through several learning practices. By doing so, the students are expected to take part actively via multimedia learning activities and prepare for their own autonomous learning. Holec (1981:3) defines that learner autonomy is "an ability to take charge of one's own learning". Little (2003), moreover, describes that learner autonomy is manifested by the learner's ability to initiate, monitor, and evaluate

learning process. To encourage the students' participation in English class, for example, interactive multimedia facilitates a structured environment that accommodates the students learning needs and learning materials. This second part of discussion is going to explain the autonomy and the enhancement of students' self efficacy when practicing interactive multimedia in English classroom.

Class environment of multimedia-based learning should be started with teacher's explanation informing that teaching learning process will be held using interactive multimedia. This is to prepare student's awareness of the use of multimedia in the class. After preparing the multimedia, teacher explains the competencies that must be achieved in the study through the main menu screen. From the perception stage, the teacher then goes immediately to the next learning step of material explanation which is included in the multimedia.

The application of interactive multimedia here is using scientific approach of Curriculum of 2013 which has five stages of learning process (observing, questioning, exploring, associating and communicating). It also covers four language skills of reading, listening, speaking and writing skills. Here, the receptive skills are carried out through observing and exploring stage, while speaking and writing activities contained in the questioning and communicating stage.

The topic of multimedia developed here is about "Describing People". This topic is for the tenth graders of Senior High School. In observing stage, the multimedia shows a video illustrating about people's characteristics. To make students more interested in the lesson, the picture shown in the multimedia are animated famous figures. Students are required to observe various pictures of people and read aloud the adjectives provided that follow the picture. Learning the right pronunciation of some adjectives, students are instructed to listen to the voices from the multimedia and try to say exactly as what they have heard. Through this phase, students are studying about vocabulary and listening skill. For exploration, the multimedia provides quizzes. As explained before, this phase explores the students' receptive skills through reading and listening activities. SCL process in the both phases is clearly shown when the students do the exercises. They can replay the video by themselves, rewind the audio for several time, and do self correction for every wrong answer. The authentic materials for observing and exploring phases here are taken from British Council's and EFL's video.

In associating stage, students can apply the material in multimedia and connect it with the real condition in their everyday lives. At this stage, students are asked to describe the physical characteristics of their friends according to the material that is already taught in multimedia. All of the students show their active responses to learning process and willingly present their work in front of the class. This associating phase aims at developing the productive language skill of students through speaking.

Assessment used in the multimedia is online evaluation and self-assessment. This kind of assessing models will make students and teacher know immediately the score got by the students from working on the exercises in the evaluation stage. Online evaluation in this multimedia allows teachers to keep the score of the students on computer.

The assessment also accommodate the three learning aspects according to the curriculum of 2013. There are cognitive, affective and psychomotor learning aspects. Teachers can assess students' cognitive abilities through practicing the exercises and doing self-evaluation contained in the multimedia. For the affective aspects, the teacher can observe student's independence, teamwork, and discipline, creativity and responsibility during the multimedia learning process. Whereas the psychomotor assessment can be observed through presentation and writing exercises done by students.

From the explanation above, it is clearly illustrated that multimedia guides the students with clear instructions and easily help them understand as well as operate it. The teacher's role here is just as a facilitator who directs the students to explore the stages of multimedia. Students centered learning is clearly reflected in this system, in which each student can observe and explore the material. Other than that, the multimedia also gives reward and punishment. By including elements of reward and punishment, this multimedia makes students reflect their own ability to do the exercises and answer the questions based on the material.

3.7 Self Efficacy

Self efficacy is not seen as its reference to individualism, but it is more about a strong sense of self belief to adapt and change successfully (Bandura, 1997: 32). Related to learning and teaching, Bandura explains that academic achievements can be predicted by individuals' sense of self-efficacy. In line with it, Multon et al (1991) illustrates the correlation between self efficacy and academic performance by stating that it gives a positive effect on learner's academic performance and persistence. Still, there is another on academic factor influencing self efficacy, it may be less apparent but student's effortful control could also directly or indirectly influence academic achievement (Liew et al, 2008: 516).

From the observations it is known that the use of the learning multimedia can significantly increase students' self efficacy and motivation during the learning process in the classroom. All students are enthusiastic and attentive to the direction of the teacher about the stages of learning and the stages of use of multimedia. They actively responded to the stimulus provided by the teacher and delighted to learn to use the media. The materials present in the media also conveyed properly and easily understood by the students. As Bandura (1977) explains that individuals' sense of self-efficacy can be predicted by academic achievements, this research notes that high self efficacy is shown from the result of evaluation test. The teacher recorded that 14 (out of 20) students passed the passing grade of evaluation phase (passing grade score is 75).

In the stage of questioning and exploring, the students have the opportunity to ask questions and express ideas or opinions. It enhances creativity and encourages students' initiative in learning. They have the opportunity to ask teacher about the matters which are still questionable. Besides the creativity of the students are also accommodated through the stages of evaluation and exercises. It also stimulates students' responsibility to work on the problems through individual tests in a limited time. The direct scoring makes students more competitive to get maximum score from learning through the media.

The students also give positive response to the use of interactive multimedia in English classroom. It can be known from the students' comments that mostly appreciate the function of multimedia in enhancing their self confidence and boosting their willingness to learn the material. Random interview with the students notes positive comments, such as:

> *"It (multimedia) eases me to understand the material that be thought by the teacher. I found it more interesting to learn English by using the interactive multimedia because I can replay the listening material as often as possible." (Vigo Trianto, student of tenth grade of MIA 1)*

> *"I like the display. The cartoons are funny. But what I like most is its interactivity. I can operate it by myself. I can go back to the material whenever I feel confused to the questions. The multimedia will directly show my score, right after I finish doing the exercise." (Agathe Citra Apsari, student of tenth grade of MIA 1)*

4 CONCLUSION

The interactive multimedia designed to meet the goals of learning were used to serve the materials, assignments, and assessment interactively. The students must follow the learning process through the direction of interactive multimedia, while the teacher was solely the facilitator. Through this study, it could be seen that the strategies of teaching using interactive multimedia were carried out very well and met the goals. Moreover, it was found that using interactive multimedia was one of the best strategies to facilitate students to experience autonomous learning, motivate students' self-efficacy to be more engaged in the learning process, and create more interactive learning atmosphere.

REFERENCES

Bandura, A. (1997). Self-efficacy: The Exercise of Control. New York: Freeman.

Coelho, A. C. C. (2010). Interactive Textbooks and Student Learning. *An e-Journal of Teacher Education and Applied Language Studies, 1*, 13-43.

Collins, Michael H, and Jerry W. (2002). Teaching and Learning with Multimedia. New York: Routledge.

Cresswell, J.W. (1984). *Research Designing: Qualitative and Quantitative Approach*. London: SAGE Publications

Faizah, U. (2009). Keefektifan Cerita Bergambar Untuk Pendidikan Nilai dan Ketrampilan Berbahasa dalam Pelajaran Bahasa Indonesia. *Cakrawala Pendidikan, XXVIII*(3).

Hannafin, M. J & Hooper , S. (1989). An Intergrated Framework of CBI screen design and layout. Computers in Human Behaviour. 5 (3). 155, 165

Kassim, H., & Ali, Z. (2007). The Use of ICT in the Implementation of Student-Centered Learning. *Internet Journal of e-Language Learning and Teaching, 4*(1), 15-31.

Kember, D. (1997). A reconceptualisation of the research into university academics conceptions of teaching. Learning and Instruction 7(3), 255–275Mulyanto, T. S., & Syahman, L. (2009). Pengembangan Kompetensi Bahasa Inggris di SMA dengan Menggunakan Pendekatan Inquiry Melalui Kegiatan *Independent Movie Festival: Anti Bullying Campaign*. *Jurnal Penelitian, 9*(1), 1-9.

Liew, J., McTigue, E., M., Barrois, L and Hughes, J., N. (2008). Adaptive and effortful control and academic self-efficacy beliefs on achievement: A longitudinal study of 1st through 3rd graders. *Early Childhood Research Quarterly,* 23:515-526.

Multon, K. D., Brown, S. D. and Lent, R. W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology.*

Piper, W. (2000). An Introduction to Self-Efficacy. Online resource: retrieved from http://www.gifted.uconn.edu/Siegle/SelfEfficacy/section1.html

Rieber, L.P (1994). Computers, Designs, amd Learning. Englewood Cliffs. NY: Prentice Hall.

Taylor, P. G. (2000). Changing Expectations: Preparing students for Flexible Learning. The International Journal of Academic Development 5(2), 107–115.

JURNAL 2

ORIGINALITY REPORT

11%	%	10%	9%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Nusir, Sawsan, Izzat Alsmadi, Mohammed Al-Kabi, and Fatima Shardqah. "Designing an interactive multimedia learning system for the children of primary schools in Jordan", 2011 IEEE Global Engineering Education Conference (EDUCON), 2011. Publication	7%
2	Tilfarlioglu, Filiz Yalcin, and Fatma Seyma Ciftci. "Supporting Self-efficacy and Learner Autonomy in Relation to Academic Success in EFL Classrooms (A Case Study)", Theory and Practice in Language Studies, 2011. Publication	1%
3	Submitted to University of Derby Student Paper	1%
4	Nguyen, Long V. "The Triangular Issues in Multimedia Language Courseware Design in the Vietnamese Efl Environment", Asian Social Science, 2009. Publication	1%

5	Submitted to University of Mauritius Student Paper	1%

Exclude quotes	On	Exclude matches	< 20 words
Exclude bibliography	On		