

# Developing Interactive Vocabulary Learning Multimedia for the Seventh Grade Students of SMP N 15 Yogyakarta

Ken Dite Asmarani  
Ashadi

English Education Study Program,  
Faculty of Languages and Arts  
State University of Yogyakarta

**Abstract:** This study aimed to develop an interactive vocabulary learning multimedia for the seventh grade students of SMP N 15 Yogyakarta. This study was a Research and Development study. The research procedure in this study was adapted from the model proposed by Lee and Owens (2004). It consisted of several steps which are analysis, design, development, evaluation, and implementation. The result of this study was an interactive vocabulary learning multimedia which consisted of three units of material namely "I Love Things Around Me", "I Love People Around Me", and "I Love My Town". Each unit of material consisted of input, drills and evaluation part. Based on the result of the expert judgment and the product try-out, the interactive multimedia designed were appropriate to be used. The mean scores of the content appropriateness and media appropriateness of the interactive multimedia in Unit 1, Unit 2, and Unit 3 were all in the range of  $>4.2 - 5$ . Based on the quantitative data conversion proposed by Sudijono (2003) the mean score in the range of  $>4.20 - 5$  was categorized as very good.

Keywords: development, vocabulary, interactive multimedia.

=====

## Introduction

There is a major change in Indonesia's educational field, which is the shift of the curriculum. The government has commanded all governmental educational institution at primary, lower secondary and upper secondary to start implementing the new curriculum, curriculum 2013. The curriculum 2013 carries a different approach from the previous curriculum KTSP, which seems to cause many issues related to the implementation. The shift of the curriculum has also given big impact to English teaching and learning, especially at Junior High School level.

The policy of the latest curriculum has decided that English subject in primary level has to be eliminated. Thus, students will first meet English subject at Junior High School level. This policy, in further, causes the change related to the English materials for Junior High School students, since the students will be considered as beginner English learners. Moreover, the scientific approach carried by the curriculum 2013 obliges teacher to support five steps of learning which are observing, questioning, experimenting, associating, and communicating. It also requires students to actively discover knowledge by themselves. Furthermore, there is a shift of teacher's role in the classroom. Teacher is no longer the main source of learning, but teacher is the facilitator of learning. Students are also encouraged to find other learning sources by themselves to improve their knowledge. Similar situations appeared in SMP N 15 Yogyakarta, in which the researcher conducted her research.

Related to the English language learning itself, there are some important factors that will determine the progress of the language mastery such as vocabulary mastery, language structure, listening skill, speaking skill, reading skill, and writing skill. Vocabulary concerns about the knowledge of any kind of existing words in English language and the comprehension of what concept those words refer to. Structure deals with how we can

arrange those words into a correct order to make sentences and longer utterances. Listening deals with the ability to recognize English sounds and how we can encode those sounds to find the appropriate meaning. Speaking skill deals with the ability to utter or produce our ideas using English words, structures and sounds. Reading skill concerns about the ability to receive messages from a written form. The last, writing skill concerns about the ability to state our ideas through a good arrangement of writing form.

Out of all of those factors, the researcher thought that vocabulary is the most fundamental factor in learning English. The reason is because before someone is able to produce language, he or she has to know the smallest meaningful device of language in the first place, which is words or vocabulary. According to Nation (2002: 17, 37, 71), there are six vocabulary levels in the Oxford Bookworms series which are started from 400 words to 2.500 words. Someone has to know approximately 400 words to be able to read books at level 1, and going to around 2.500 words to be able to read books at level 6. The amount of vocabulary needed in speaking production is also large. Knowing approximately 1.200 main words will be sufficient for students in order to say things which they want to say. Moreover, the amount of vocabulary needed to be able to understand a children movie is at the rate of 4.000 words family vocabulary that will cover for just 95% of the running words. The fact indicates that vocabulary is crucial in terms of learning English.

In an educational context, learning English seems to have similar situation. Students need to know a large amount of words in order to be able to achieve the learning objectives, although it does not take as many words as someone needs to acquire the language. Students need to know a large amount of vocabulary to understand teacher's instructions, to read texts, to answer questions from the teacher or books, to be able to participate in speaking and writing production in the classroom, and to pass the core and basic competencies in the curriculum.

Furthermore, to know a word does not merely mean that students know the translated meaning of the word. It, at least, involves knowing its form and its meaning. Students need to know the form of the word, how it is spelled, the meaning, its grammatical function, how students can make use of the word, as well as how it is supposed to be uttered. According to Cameron (2001: 72), a word can reveal much grammatical information. Learning a word can also help students to learn grammar. This suggests that if we give a high priority to vocabulary development, we are not thereby abandoning grammar. Rather, learning vocabulary can be the means to help students to learn grammar and language.

Considering the shift of the curriculum which causes students to firstly met English at Junior High School level and the importance of vocabulary, there is no doubt that the teacher should pay attention to the vocabulary development of the students. The teacher has to prepare him/herself and be more organized so that there is no aspect of language which is neglected during the course, including vocabulary.

Related to the learning media, the government has provided a book for the English subject. But due to the application of scientific approach, students need more alternative learning media which can support the discovery learning. Therefore, this research aims to develop interactive multimedia to improve students' vocabulary mastery. The interactive multimedia can be expected to help students to learn vocabulary independently that will save the vocabulary learning time in the classroom.

## **Research Method**

The objective of this study was to develop interactive vocabulary learning multimedia for SMP N 15 Yogyakarta. Thus, the design of the study was classified into Research and Development design. As noted by Gall, Gall, and Borg (2003: 569), "Research and

Development study is a research process used to develop and validate educational products.” This statement implied that by adapting this design, there were process of developing and validating an educational product in this study. The development was based on the relevant data collected from the research respondent, and the validation involved media expert and material expert. The educational product was also validated by being implemented in the real teaching and learning process to assure its quality and feasibility. The research procedure in this study was adapted from the model proposed by Lee and Owens (2004). It consisted of several steps which are analysis, design, development, implementation, and evaluation.

The respondents in this research were the student and the teacher of SMP N 15 Yogyakarta. There were 33 students of the seventh grade from class E that was given the questionnaires for the needs analysis, and an English teacher that was interviewed to gain information related to the data needed to develop the product of the research. The instruments used to obtain data were observation guide, interview guide, and questionnaires. The interview was used to gain information about the characteristics of the students, and information related to the teaching and learning process in the classroom in order to be able to develop appropriate interactive multimedia, so did the observation. The researcher also used several different questionnaires for students, and experts. The first questionnaire was given to students to gain information about the target needs and the learning needs. The second and third questionnaire was given to the experts to get comments and suggestions in developing interactive multimedia and also to determine whether the interactive multimedia developed was already appropriate and could be classified into an effective interactive multimedia or not. And the last questionnaire was given to the students to assess the materials.

Both quantitative and qualitative data were obtained in this research. Quantitative data were obtained from the questionnaire. The qualitative data were obtained from the observation, interview, and the comments and suggestion from the expert.

## **Research Findings**

Based on the results of the needs analysis, it is revealed that the seventh grade student of SMP N 15 Yogyakarta needed to learn English to be able to communicate in English. They also needed to learn some units more intensely. They had lack in mastering English vocabulary that hampered their language learning. Therefore, they wanted to learn more about the meanings of words to help them improve their vocabulary proficiency.

### **The Description of Target Needs**

Based on the result of the needs analysis, it is revealed that students needed to learn 10 up to 20 words in each unit material. The students also desired to enrich their vocabulary through games. Moreover, they desired to have a form of vocabulary learning media which would enable them to learn vocabulary outside the classroom, but still in the school area. More specifically, they desired to have an interactive multimedia as their vocabulary learning source. The use of cartoon pictures and back sounds were preferred in the interactive multimedia. The font type in the interactive multimedia preferred was Century Schoolbook, Harrington, and Arial. Students also believed that the background, font size, and font color must be designed depends on its function.

The course grid was developed based on the result of the need analysis. The course grid functioned as the guideline in developing the interactive multimedia, so that the result of the product would match the result of the need analysis. In developing the course grid, the researcher also considered the syllabus, the interview result, and the observation result as the source of information. The course grid consisted of core competence, basic competence, objectives, indicators, unit title, topic, vocabulary input, and activities. The activities in each

unit were divided into three parts which are input, drill and evaluation. The input part aimed to introduce the students to the vocabulary, the drill part aimed to practice using the vocabulary, and the evaluation part aimed to see whether the students has already learnt the vocabulary yet.

After developing the course grid, the next phase was to design a flowchart. A flowchart visually depicts the sequence and structure of a program. A flowchart was designed to make a clear concept of how the parts of the interactive multimedia was constructed and linked one another. The flowchart was in the form of tree structure. It was preceded by the main menu and then branched into several submenus. The First Draft of The Multimedia. After the flowchart was designed, the first draft of the interactive multimedia was then developed. This phase involves several steps which were collecting materials, integrating the materials into the program, and validation by the expert. The result is an interactive vocabulary learning multimedia which consists of three units of material namely "I Love Things Around Me", "I Love People Around Me", and "I Love My Town". Each unit of material consists of input, drills and evaluation part.

After the development of the first draft of the multimedia was completed, the next phase was to have an expert judgment. The expert judgment had the purpose to evaluate the first draft and to measure the feasibility of the first draft. There were two main aspects of the interactive multimedia which had to be evaluated, which were the content and the media. A questionnaire of 33 questions which cover those aspects were developed to see the appropriateness of the interactive multimedia. Due to the comment and suggestions from the expert, there were some revisions that should be made in each Unit related to the content appropriateness and media appropriateness. The revisions were done to improve the quality of the interactive multimedia.

#### Implementation

After the final draft was evaluated and validated by the expert, the implementation phase was conducted. The implementation phase was conducted on 4th of January 2016. The implementation phase took place in the library of SMP N 15 Yogyakarta at 10.00 – 11.00 WIB. The implementation was in the form of small group try-out. There were six students involved in the implementation phase. They were asked to try the interactive multimedia. They were also asked to fill the questionnaires to measure the appropriateness of the interactive multimedia. There were three questionnaires distributed to each student to measure the appropriateness related to the content and media of Unit 1, Unit 2, and Unit 3. The result of the evaluation from the students is overall very good. They enjoyed playing the interactive multimedia. They were also very excited since the concept of the interactive multimedia is game. The learning was taught implicitly. They were only focused on playing the game. In the implementation phase, it could be seen that students were more interested in doing easy tasks. They seemed more excited when they can solve a problem easily. When it comes to a more difficult task or tasks which have long explanation, they seemed to lose their attention and interest. But overall, they really enjoy playing the interactive multimedia.

#### Conclusions and Suggestions

Based on the needs analysis, it was revealed that seventh grade students of SMP N 15 Yogyakarta needed to learn English to be able to communicate in English. They also needed to learn more intensely on some materials to achieve the target needs, which were the name of things, describing people, and giving direction. However, they faced difficulty during the process of learning English due to their insufficient amount of vocabulary that they know. Thus, they wanted to enrich their vocabulary, especially on knowing the meaning of words. Learning vocabulary is very crucial for beginner learner.

#### Learning Needs

In terms of learning needs, students needed to learn 10 up to 20 words in each unit material to be able to enrich their vocabulary effectively. The students also desired to enrich their vocabulary through games. Moreover, they desired to have a form of vocabulary learning media which would enable them to learn vocabulary outside the classroom, but still in the school area. More specifically, they desired to have an interactive multimedia as their vocabulary learning source. The use of cartoon pictures and back sound were preferred in the interactive multimedia. The font type in the interactive multimedia preferred was Century Schoolbook, Harrington, and Arial. Students also believed that the background, font size, and font color must be designed depend on its function.

The structure of the activities in the Interactive multimedia is adapted from the structure of the activities in the book which is used by students: *When English Rings The Bell*. In every unit in the book, there are examples of expressions usage as the input, which are followed by several activities as the drill. The evaluation part is added to see what students have learnt after using the interactive multimedia.

#### Input

In this research, the term input refers to the words that will be learnt in the interactive multimedia. It involves the process of introducing the new vocabulary to the user. The input was designed differently in each unit material, but still referring to the principles of teaching vocabulary with direct method, learning with scientific method, and learning with game. Illustrating and demonstrating technique were used to introduce the vocabulary to the students. In Unit 1, the input is in the form of hidden game with the help of hint button. It is expected that by playing the game, students will get sufficient exposure to the new vocabulary. In Unit 2, the input is in the form of interactive slide. In Unit 3, the input is in the form of interactive slide as well.

#### Drill

According to Nation and Newton (2009: 19), teaching beginners should focus on meaning, interesting, avoiding too much new language, understandable, and stress-free. Therefore, game concept is considered suitable to be applied in the interactive multimedia. It is also in line with the principles of teaching vocabulary with direct method, in which the user will be exposed with direct association of meaning and language. In Unit 1 the drill is in the form of hidden object game, labeling game, find the differences game, crossword game, hangman game, and jumbled sentence game. In Unit 2 the drills are in the form of creating picture game, guessing figure game, spaceship game, crossword game, hangman game, and jumbled sentence game. In Unit 3 the drills are in the form of finding the building game, direction game, let's go to game, crossword game, hangman game, and jumbled sentence game.

Evaluation part in the interactive multimedia was designed to see whether the vocabulary exposed has been learnt or not. It gives feedback to the user whether their knowledge about a particular word is correct or incorrect. The evaluation part in the interactive multimedia is in the form of choosing the best describing picture.

### **Suggestions**

English teachers should be more creative in teaching. They should try developing similar project of creating learning multimedia using PowerPoint considering its user friendly features, and the fact that it is teachers' duty to provide students with extra learning sources. Moreover, teachers know exactly the proficiency level of his/her own students. Thus it will be most appropriate if teachers can develop learning media by themselves, rather than downloading or buying the program. Ultimately, by developing the project, it is expected that

teachers can explore and enhance their creativity, which can improve their professional level as well.

Due to some considerations, the product of this research only covers three units of material. Meanwhile, looking at so many aspects of English materials, three is a little number. Thus, firstly, the other interactive learning multimedia developers should develop interactive learning multimedia which can cover more unit materials in the future. In addition, the product of this research referred to direct method teaching, and learning with game principles in its developing process. Thus, secondly, multimedia developers should consider developing learning multimedia with other concepts and approaches to explore greater success possibility in developing appropriate interactive learning multimedia.

## **References**

- Cameron, L. 2001. *Teaching Languages to Young Learners*. Cambridge: Cambridge University Press.
- Gall, M. D., Gall, J. P. and Brog, W. R. 2003. *Education research: As Introduction*. New York: Library of Congress Cataloging.
- Nation, I.S.P. 2008. *Teaching Vocabulary: Strategies and Techniques*. Boston: Heinle.
- Nation, I. S. P., & Newton, J. 2009. *Teaching ESL/EFL Listening and Speaking*. New York: Routledge.