Developing Reading Materials Using Interactive Learning Multimedia for Grade VIII Students of SMP Muhammadiyah 2 Depok Sleman

Singgih Indratama
Suharso

Abstract: The objectives of this research were: (1) to find information of the target and learning needs for reading materials using interactive learning multimedia for Grade VIII students of SMP Muhammadiyah 2 Depok Sleman, and (2) to develop an appropriate interactive multimedia to teach reading for Grade VIII students of SMP Muhammadiyah 2 Depok Sleman. This was a research and development (R & D) study. The subjects were Grade VIII students of SMP Muhammadiyah 2 Depok Sleman Classes VIII A and VIII B consisting of 45 students. The procedure adapted a model of multimedia instructional design process by Lee and Owens (2004). The steps were: (1) analyzing students' needs, (2) designing the course grid, flowchart, and storyboard, (3) developing the first draft of the interactive multimedia, (4) conducting evaluation through expert judgment for the materials and media aspects, and (5) revising the first draft into the final draft. The data collection instruments were a needs analysis questionnaire and an expert judgment questionnaire. The needs analysis data were analyzed quantitatively using frequency and percentage. Meanwhile, the expert judgment data were analyzed using descriptive statistics. The results of the needs analysis showed that: 1) the students lacked in vocabulary and pronunciation; 2) they preferred learning about their surroundings such as people, animals, non-animal things, and places; 3) they learned English to master all English skills properly, study abroad, pass the examination, and find a job in the future; 4) they preferred the interactive media to learn English easily; 5) the learning inputs for the materials included texts followed by pictures, vocabulary, and questions; 6) they wanted various learning activities such as completing sentences, answering questions, identifying grammar, and arranging words/sentences; 7) they preferred learning English individually or in groups but still needed guidance from the teacher; and 8) they wanted the interactive multimedia to have interesting and colorful background, easy and simple navigation, sounds and music, and the answer keys. Thus, this research developed an interactive learning multimedia which can be used in computers. It consisted of three units and each unit had 18 activities. The materials were evaluated in terms of the content, the language, and the presentation appropriateness. Meanwhile, the media were evaluated in terms of screen display, multimedia elements, navigation systems, and feedback. Both scores of the whole materials aspects and media aspects were 3.42 and 4.00, respectively, which were in the range of $3.25 \leq x \leq 4$ and were "Very Good". As a result, the interactive learning multimedia was considered appropriate for Grade VIII students.

Keywords: *English Learning Materials, Interactive Learning Multimedia*

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Introduction

Nowadays, a lot of information is available in the form of written texts, such as books, magazines, newspapers and the Internet. Reading is used as a medium to get knowledge and information from those sources. Moreover, the final

examination for English in Indonesia is also in the form of the written texts. That is why mastering reading is necessary to achieve the success of language learning.

Based on BSNP (2006: 277), there are three aims of the teaching and learning English in junior high schools: 1) developing communicative competencies in both spoken and written texts to achieve the level of functional literacy, 2) having an awareness of the significance of English to improve the competitiveness of a nation globally, and 3) developing students' comprehension of the connection between languages and cultures.

However, the majority of students in SMP Muhammadiyah 2 Depok Sleman had a problem in reading. They got difficulties to find the information from reading texts and they did not understand the generic structure of the text. They could not read descriptive texts correctly either.

The first issue was the material sources. Textbooks were used as the primary material sources. Mostly the learning activities in the classroom were only reading the textbooks. The teacher gave a text to students from the textbooks and asked them to read it. Then, they did the tasks related to the content of the text. All reading activities came from the textbooks. Those activities were always conducted repeatedly in every meeting. The textbooks had limited learning contents. The reading teaching and learning process was not effective because of the limited input of descriptive texts. Therefore, the students lacked the knowledge about descriptive texts.

The second problem was the learning process. The teacher was the center of the teaching and learning process. She dominated all activities in the classroom such as planning the lesson and giving an explanation about the materials. Students did not have opportunities to decide what kind of learning activities they wanted to learn. Consequently, the reading teaching and learning process became monotonous and uninteresting for the students.

The third problem was the teaching-learning media. The learning media such as computers, LCD projectors, and tape recorders were available in the school. They were expected to support the teaching and learning process. However, the available interactive learning multimedia was limited. Therefore, the media were underused and the students did not get learning experiences using the interactive multimedia.

In relation to the problems, the study addresses the following research questions:

1. What are the target and learning needs for reading for Grade VIII students of SMP Muhammadiyah 2 Depok Sleman?
2. What is the appropriate interactive multimedia to teach reading for Grade VIII students of SMP Muhammadiyah 2 Depok Sleman?

Research Method

The objective of this research was to develop an interactive learning multimedia for reading for Grade VIII students of SMP Muhammadiyah 2 Depok Sleman. This research was classified as a research and development (R & D). Richey et al. in Jonassen (2004:1099) state that developmental research has been defined as the systematic study of designing, developing and evaluating instructional programs, processes, and products that must meet the criteria of internal consistency and effectiveness. The result of the research was an interactive multimedia for reading

descriptive texts for Grade VIII students of SMP Muhammadiyah 2 Depok Sleman.

This research was conducted at SMP Muhammadiyah 2 Depok Sleman which is located in Jl. Swadaya IV Tegalturi Karangasem Condongcatur Depok Sleman, Yogyakarta. The subjects were 45 students of Grade VIII A and Grade VIII B SMP Muhammadiyah 2 Depok Sleman.

In developing the interactive learning multimedia, the researcher adapted a procedure from the Multimedia-Based Instructional Design by Lee and Owens (2004). They mention five stages in the procedure, namely Analysis, Design, Development, Implementation, and Evaluation. However, the researcher decided to implement four of the five stages including Analysis, Design, Development, and Evaluation. A revision stage was also added as the final stage in the research procedure.

There were two questionnaires used in this research. The first questionnaire was used to collect information about the students' needs before the product was developed. The second questionnaire was distributed to the expert to get the evaluation, suggestion, and validation of the first draft of the product.

Findings and Discussion

The result of this research is an appropriate interactive learning multimedia for reading for Grade VIII students of SMP Muhammadiyah 2 Depok Sleman. However, it is expected that the learning materials can be implemented to Grade VIII students of other junior high schools.

The target needs consisted of the students' lacks, wants, and goals in learning reading. For the lacks, the students' skills in reading texts were quite low. Therefore, this interactive multimedia was completed by various learning inputs such as texts and pictures to attract the students' interest in learning reading. The other lacks were the vocabulary, pronunciation, translation, and sentence structure. Related to various students' difficulties, the interactive multimedia provided vocabulary, pronunciation, and translation activities. For the sentence structure activities, the students were given the simple present tense, the degrees of comparison, and the articles "a", "an", and "the".

For the wants, students wanted to learn their surroundings such as music, entertainment, daily life, and society. Related to this, this interactive multimedia provided various sample texts which can be found in students' surroundings, such as people (entertainers), animals, and tourist places.

For the goals, students wanted to master English properly and study abroad. Through reading, they also wanted to understand the texts, master English vocabulary and pronounce English properly. Related to this, this interactive multimedia provided the sentence structure activity, a list of vocabulary and pronunciation practices.

In developing the interactive multimedia, the information of learning needs was also needed. The learning needs consist of input, procedures, teacher's roles, learners' roles, and settings. In terms of learning input, this interactive multimedia had been completed with various pictures or illustrations, various questions, list of vocabulary, and various topics (people, animals and non-animal things, and places).

In terms of learning procedures, the students can learn the interactive multimedia

easily on the computer. This interactive multimedia had been completed with images and audio to make the learning process more interesting. Therefore, this interactive multimedia provided various learning activities such as matching activities, fill-in the blanks, true/false statements, multiple choices, ordering jumbled sentences, and pronunciation practices.

Related to teacher's roles, students' roles and settings, this interactive multimedia is useful for the teacher and students. The teacher could guide the students to operate this interactive multimedia and monitor the learning process. Students could also learn English using this interactive multimedia individually or in groups.

The students preferred learning English using an interactive multimedia. This interactive multimedia can be used in computers. They can learn it individually or in groups.

In developing interactive multimedia, the students agreed that the background should be interesting. Consequently, the background of this interactive multimedia was different for each unit. The font of interactive multimedia that the students preferred was Helvetica. For the navigation buttons, the students preferred using symbols which match with the functions. They could choose each menu that they want by clicking it. The (x) symbol at the top-right corner is used to close the application. To go back to the main menu, they could click the Home symbol.

The sound of interactive multimedia was necessary. The students could turn on or turn off the music and sound effect of this interactive multimedia in the Setting menu. The available answer key in the interactive multimedia was sometimes needed. The students could check their answers in each task by clicking the Check button. They could also redo the task if they want by clicking the Clear button.

This interactive learning multimedia has three units: Unit 1 (*He is My Idol*), Unit 2 (*It Has Four Legs*), and Unit 3 (*My Favorite Places*). Unit 1 focuses on how to describe people. The grammar item in this unit is the simple present tense. It consists of 18 activities. Unit 2 focuses on how to describe animals and non-animal things. The grammar item in this unit is the degrees of comparison. It consists of 19 activities. Unit 3 focuses on how to describe places. The grammar item in this unit is the articles "a", "an", and "the". It consists of 18 activities.

The developed interactive multimedia consists of two main parts: main menu and unit menu screen. The main menu screen consists of six menus: *Competences, Materials, User Guide, Settings, About Us,* and *Credits*. Meanwhile, the unit menu screen consists of five parts: *Overview, Let's Study!, Reflection, Summary,* and *Word Bank*.

The results of the whole material aspects and media aspects were respectively 3.42 and 4.00 which were in the range of 3.25   x   4 and were "Very Good". It shows that the developed materials are appropriate for Grade VIII students of SMP Muhammadiyah 2 Depok Sleman.

Conclusions

Target needs refer to what the learner needs to do in the target situation. They consisted of lacks, wants, and goals. For the lacks, the students' skills in reading texts were quite low. For the wants, students wanted to learn their surroundings such as

music, entertainment, daily life, and society. For the goals, students wanted to master English properly and study abroad.

Learning needs refer to what the learner needs to do in order to learn. There were several components of learning needs such as input, procedures, teacher's roles, learners' roles, and settings. In developing interactive multimedia, the students agreed that the background should be interesting. The font of interactive multimedia that the students preferred was Helvetica. For the navigation buttons, the students preferred using symbols which match with the functions. The sound of interactive multimedia was also considered necessary.

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