DEVELOPING APPROPRIATE INTERACTIVE LEARNING MULTIMEDIA OF READING AND WRITING FOR *WHEN ENGLISH RINGS A BELL* FOR GRADE VII STUDENTS

E-Journal

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APPROVAL SHEET

DEVELOPING INTERACTIVE LEARNING
MULTIMEDIA OF READING AND WRITING FOR *WHEN ENGLISH*
***RINGS A BELL* FOR GRADE VII STUDENTS OF SMP N 1 IMOGIRI**

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Developing Interactive Learning Multimedia of Reading and Writing for
***When English Rings A Bell*/For Grade VII Students Of SMP N 1 Imogiri**

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Abstract: The aim of this research was to develop interactive learning multimedia of reading and writing for *When English Rings a Bell* for grade 7 students of SMP N 1 Imogiri Bantul. This research was classified as research and development (R&D). The subject of the research was the VIIA grade students of SMP N 1 Imogiri Bantul. The research procedure was adapted from ADDIE model proposed by Lee and Owens (2004). The steps were analyzing students' needs, designing course grid and flowchart, developing the first draft of the interactive learning multimedia, evaluating the first draft by an expert and revising it to get the final draft. The data were collected through (needs analysis questionnaire and expert judgment rating scale). The data from the needs analysis were analyzed quantitatively using frequency and percentage. Meanwhile, the data from the expert judgment were analyzed using descriptive statistics to evaluate the first product. The first product was revised to get the final product. The research findings showed that the multimedia was considered appropriate. The mean score was 3.3, which was "good".

Key words: interactive learning multimedia, reading, writing, When English Rings a Bell, grade vii students of SMP

Abstrak
Tujuan penelitian ini adalah untuk mengembangkan multimedia pembelajaran interaktif membaca dan menulis berdasarkan buku "When English Rings a Bell" untuk siswa kelas VII SMP N 1 Imogiri Bantul. Penelitian ini dikategorikan sebagai penelitian dan pengembangan. Prosedur penelitian ini diadaptasi dari model ADDIE yang dicetuskan oleh Lee dan Owens (2004). Langkah-langkahnya adalah menganalisis kebutuhan siswa, merancang silabus dan peta konsep, mengembangkan draft pertama dari multimedia pembelajaran interaktif, evaluasi draft pertama oleh seorang ahli dan merevisinya untuk mendapatkan draft akhir dari multimedia interaktif. Data dari analisis dikumpulkan melalui analisis kebutuhan siswa dan lembar penilaian ahli media. Data dari analisis kebutuhan siswa diolah secara kuantitatif menggunakan frekuensi dan persentase. Data dari penilaian ahli diolah melalui deskriptif statistik untuk mengevaluasi produk pertama. Draft pertama kemudian direvisi untuk mendapatkan produk akhir dari multimedia pembelajaran interaktif. Temuan dari penelitian ini menunjukkan bahwa multimedia interaktif dinilai pantas. Nilai rata-rata yang diperoleh adalah 3.33 yang dikategorikan "baik".

Kata kunci: multimedia pembelajaran interaktif, membaca, menulis, When English Rings a Bell, siswa kelas VII SMP

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Introduction

Nowadays, the use of technology becomes an essential aspect of our daily life. In education, the developments of computer and technology enhance the teaching and learning process. The use of media helps students learn English and optimize their potential in learning. The great inventions of application software provide teachers with various types of teaching and learning media. As mentioned in the Regulation No. 22 of 2016 regarding Standard Process, one of the educational principles is employing information, communication and technology to increase the efficiency and effectiveness of learning. Therefore, teachers are required to use information technology such as learning media to support teaching and learning process.

One of those learning media is interactive learning multimedia. Through interactive multimedia, the learning process becomes active, not passive. Interactive learning multimedia ensures that users are learning, not simply watching. Interactive multimedia helps the students visualize, know the situation in the text, and get the information easily. According to Crichton and Kopp (2006: 4), interactive multimedia are those that integrate media objects such as text, graphics, video, animation, and sound to represent and deliver information.

Today, many schools provide computer facilities for learning. One of those schools is SMP Negeri 1 Imogiri. This school has excellent language laboratory, computer laboratory, and internet connection. However, based on an interview with one of the English teachers, this school had no multimedia software for reading and writing to support teaching and learning English for grade VII. There were only audio recording and songs to support listening activities. In addition, the teacher often faced some difficulties in finding the appropriate learning sources that suited the students' need and recent curriculum.

A textbook was used by the teacher as the main source. The textbook was published in 2013. The English textbook entitled "When English Rings a Bell" published by Ministry of Education and Culture. However, this book has limited text and no audio. Concerning these, the students of grade VII of SMP N 1 Imogiri needed more learning multimedia to support learning English. Hence, the aim of this research was to develop interactive learning multimedia of reading and writing for *When English Rings a Bell* for grade VII students of SMP N Imogiri.

This study focused on developing interactive learning multimedia of reading and writing at SMP N 1 Imogiri in academic year 2013/2014. The interactive learning multimedia was adapted from an English textbook entitled *When English Rings a Bell* for grade VII students.

Reddi (2003) in Mishra and Sharma (2003:4) defines that multimedia is an integration of multiple media element such as audio, video, graphics, text, animation, into one medium, that gives more benefits for the end user than any one of the media elements can provide individually.

According to Bass (2000), interactive multimedia are any package of material which contains some mixture of texts, graphics, animation, video and audio.

Bitter and Legacy (2009: 354) propose at least five elements of interactive multimedia. They are text, graphics, video, sound and animation.

A good interactive multimedia has some criteria to be classified as an effective media, as proposed by Stemler in Roblyer (2010: 172), as presented in Table 1.

Table 1: **Stemler's Design Principle**

No	Multimedia Features	Principles
1.	Screen Design	1.1 Well-designed screens focus on the learner's attention 1.2 help learners find and organize information 1.3 support easy navigation through lesson
2.	Interaction	2.1 An effective interactive multimedia program provides opportunities for interaction 2.2 The interaction uses rhetorical questions to get the students to think about the contents and to stimulate their curiosity.
3.	Feedback	3.1. Keep feedback on the same screen with the question and student response 3.2. Provide immediate feedback 3.3. Verify correct answers
4.	Navigation	4.1. Navigation should be located consistently throughout a program. 4.2. There should be navigation buttons that allow students to exit the program, go forward, go backward, go to the main menu and go to glossary.
5.	Learner Control	5.1. Provide older and more capable learners with more control over the sequence of instructional tasks 5.2. Younger or beginner learner should have a more guided sequence.
6.	Color	6.1. Cueing and highlighting certain elements (important information) to bring them to the learner's attention 6.2. The choice of color should be consistent within a program.
7.	Graphic	7.1 Graphics include photo and scanned pictures. 7.2 Information is well understood and retained when supplemented with graphic. 7.3 Use graphics to indicate choice (e.g. left or right arrows) 7.4 Use graphics sparingly for other purpose (to entertain or amuse)

8.	Animation	8.1. An effective animation should motivate and attract the learners' attention.
		8.2. Subtitle benefits by highlighting key information and facilitating recall.
9.	Audio Elements	9.1. Use audio for short presentation of program content
		9.2. Do not require long readings on each screen.
10.	Video Elements	10.1 Video should be synchronized with content.

Research Methods

The subjects of the research study were 30 students from class VII A of SMP N 1 Imogiri. They were taken as the sample in this research. The needs analysis of this research was conducted on 21st September 2013. This step was to get the data about the learners' characteristics and the learning materials which would be presented in the interactive multimedia.

There were two techniques of data collection implemented in this research. They were needs analysis and expert judgment. The needs analysis questionnaire was used to collect the students' need. Meanwhile, the expert judgment rating scale was done to get feedbacks and suggestions about content and design appropriateness. The expert judgment was conducted after developing the first draft of the interactive learning multimedia. The research procedure was adapted from ADDIE model proposed by Lee and Owens (2004). The steps were analyzing students' needs, designing course grid and flowchart, developing the first draft of the interactive learning multimedia, evaluating the first draft by an expert and revising it to get the final draft.

There were two types of data namely quantitative and qualitative data. Quantitative data were presented in the form of percentage, then qualitative data were presented in the form of sentences. The students' answer were calculated in the form of percentages. The highest percentage was considered representing the students' condition. Then, the data from expert judgment were measured using *Likert* scale. Each response of the questions was given number in the scale of 1 to 4 and the number of scales represented the descriptive categories.

Research Findings

Research findings related to the learning needs cover some key elements such as input, design, procedure, teacher's role and setting. Learning needs related to interactive learning multimedia covers the components of design principles which are screen design, interaction, feedback, navigation, learner control, color, animation, audio elements, and video elements.

The results of the needs analysis can be summarized as follows. In terms of materials input students wanted to have richer materials compared to the adapted textbook. Students preferred Comic Sans Ms and Times new Roman with 12 to 14 pt of size to be used in the interactive multimedia. In terms of design, the students' preferred to have contrasted color with the background so

that the texts are clear and easy to read. Moreover, related to the navigation system, the students agreed that the navigation system had to be simple and use appropriate symbols for the buttons. Regarding back the availability of sound and answer key, most students considered them needed.

In terms of procedure, they preferred to do some reading activities such as: answering questions based on the text, finding vocabulary meaning and filling in the blank spaces. Meanwhile, the students wanted to have a writing activity like filling in the blank spaces and creating a text based on pictures. For the teacher's role, students wished their teacher helps them by giving example before doing the tasks in the interactive learning multimedia. In terms of setting, most students liked to work individually.

The materials were integrated into the program using Adobe Flash CS5. The first draft of the interactive multimedia consisted of three main components. They were *Start Page, Home Page* and *Menu Page*. *Start Page* is the opening of the program which shows the title of the program, the institute and the year of developing the media. After clicking "start" button, then the next slide appears after the logo is the *home* page. It shows the welcoming screen and unit title of the interactive multimedia. In this page, there are four buttons; "*Introduction*", "*About the Author*", "*Materials*" and *"Fun Corner"*. Unit materials are also called *Menu Page*. There are three units which can be chosen by the users; "I love things around me", "She is so nice" and "How does it look like?" In the end of the main activity, there were reflection and summary. Reflection gives the opportunity to the students to reflect on what they have learned in that unit. Meanwhile, summary consists of the language functions, structure, or texts that have been learned, vocabulary list which consists of some difficult words and meanings.

The research findings showed that the developed interactive learning multimedia was considered appropriate. The mean score for both content and design aspects were 3.3 which were categorized "Good". The content of interactive learning multimedia were in line with the learning goals of every unit, in line with the adapted book *When English Rings the Bell* published by The Ministry of Education and Culture, focused on reading and writing skills and arranged systematically. The language in the interactive learning multimedia were appropriate, accurate and easily be understood.

In terms of a media aspect and design, the findings showed that screen appearance of appropriate interactive learning multimedia were clear and proportional, match in terms of color combination, and present texts, pictures, and animations efficiently. The learning multimedia presented a text in an appropriate font size. Texts, picture, animations and videos were neatly arranged.

A navigation button was located consistently throughout a program. It is in line with the characteristics of effective interactive multimedia proposed by Stemler inRobyler (2010). There was a navigation button that allowed students to exit the program, go forward, go backward and go to the main menu. The interactive learning multimedia kept feedback on the same screen with the question and student response, provide immediate feedback, and verify correct answers.

Finally, the interactive learning multimedia of reading and writing for *When English Rings a Bell* was judged as appropriate for the junior high school students. It was based on research findings related to the students' needs and the result of the expert judgment.

Conclusions

The results of this research showed that the goals in learning English for grade VII students' were to accomplish core and basic competencies that have been set by curriculum. The appropriate interactive learning multimedia for learning reading and writing had the following criteria:

a. Content
The content of appropriate interactive learning multimedia should be in line with the learning goals of every unit, in line with the adapted book *When English Rings the Bell* published by The Ministry of Education and Culture*,* focused on reading and writing skills and arranged systematically. The learning objectives are written based on the learning goals that are wanted to achieve in the unit.

b. Language
Language is the next component. The language in the interactive learning multimedia should be appropriate, accurate and easily be understood. Then, the content of appropriate interactive learning multimedia should be presented in a systematical order.

c. Design
 In the term of a media aspect and design, screen appearance of appropriate interactive learning multimedia should be clear and proportional, match in terms of color combination, and present texts, pictures, and animations efficiently.

d. Multimedia Elements
 An appropriate learning multimedia should present a text in an appropriate font size. Texts, picture, animations and videos should be neatly arranged. And the pictures, videos, animations and audio files must have a good quality in terms of image and sound.

e. Navigation button
 A navigation button should be located consistently throughout a program. There should be navigation button that allow students to exit the program, go forward, go backward and go to the main menu.

f. Feedback
 An appropriate interactive learning multimedia should keep feedback on the same screen with the question and student response, Provide immediate feedback, and verify correct answers.

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