

# DEVELOPING ENGLISH INTERACTIVE MULTIMEDIA STUDENTS' E-WORKSHEET FOR FOURTH GRADERS OF ELEMENTARY SCHOOL

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## ABSTRACT

Technology can change the paradigm of teacher-centered to be student-centered. One of the advantages of the technology is in making multimedia material. Multimedia material is one type of media that can be used as the solution to improve the student motivations in doing tasks in the worksheet. This study is a Research and Development of designing an E-Worksheet which is based on multimedia technology and internet network. There are seven stages to develop this E-Worksheet. They are Need Analysis, Product Design, Expert and Teacher Validation, First Product Revision, Field Test, Second Product Revision and Final Product. This study aims at developing interactive multimedia e-worksheet for the fourth graders of elementary school. It was tried out to the students and the results the students' interest, motivation, and concentration in learning English, by using the Interactive Multimedia E-Worksheet was high. The level of difficulty of the E-Worksheet was well. The students' activeness was very high. From these findings, it is suggested that English teachers need to learn how to design and develop multimedia material by using various computer programs. For Students, they should be control in utilizing computer and internet.

**Key words:** worksheet, research and development, multimedia and technology

## INTRODUCTION

English has been introduced as a local content curriculum at the elementary school. In an educational process, students or learners are expected to undergo changes. Given this view, we expect that each program, course and educational unit brings about some significant changes to the students.

Student worksheet is one of the appropriate learning materials for students. It is helping students to add information about the concept learned through systematic learning activities (Suyitno, 1997: 40). But in reality worksheets that have been owned by learners has not

been able to assist in finding the concept, as it contains only the material and questions. However, the presence of LKS as student work book is still very minimal and has not been effective as a means of learning both in terms of appearance, contents, and practically. To optimize the LKS in terms of both appearance and quality of learning based transformation needed convergence of information technology and telecommunications (ICT). Print worksheet function can be replaced by interactive worksheets. So, that a variety of subject matter could be more alive, more in-depth and can enhance

innovation and increase the creativity of students.

### **English for Elementary School**

In countries where English is not the first language, such as Indonesia, English lessons that are taught in elementary school are aimed at enriching the basic vocabularies which children should know before starting to make simple statements or sentences such as alphabet, numbers, parts of the body and animals. Simple expressions are also taught to them such as greetings, how to ask for help or how to borrow something from a friend.

The basic reason why English learners must practice conversation is to increase their fluency and understanding of the English language. By answering questions below, students will be able to recognize the appropriate response of the English language. Practice of English conversation everyday so that you will be familiar with any situations. Try to find some friends around your neighborhood so that you can communicate with them in English.

### **The English Curriculum for Elementary School**

Elementary school curriculum consists of 8 and 10 subjects consecutively, local content, and self development. Local content is curricular activities in order to develop competency adjusted with unique local characteristics and potential, including local advantages where the content cannot be clustered into the

existing subjects. Local content is determined by individual educational unit (school or alike). English is one of the local content which is taught in Indonesia curriculum. According to the Ministry of National Education (MONE) policies, English for elementary school is started from the fourth grades (BSNP, 2006: 404).

### **English for fourth graders**

Teaching English to elementary school students in Indonesia as a local content is the students are expected to have skills of the language in simple English with emphasis on listening, speaking, reading, and writing skill using selected topic related to their environmental needs. Related to the objective above, the material for the fourth grade, most topics are about center of interest that they often face in their life. The topics include things inside a class and things around a school. Those topics are so familiar with students that may see it every day when they attend to their school. So, it is easier for them to perform and absorb the words given which are about things inside the class and things around the school. There is no basic rule on how many words should be given to the fourth graders of elementary school. As ten up to eleven years old children, the fourth graders should not be given too many words. It is better to give them about seven or eight new words at one time.

According to English Syllabus (Pembot Semarang, 2004: 15), the English materials for fourth graders are Greeting

and parting, Color, Things around us, Number, Part of the body, Family, Hobbies, Calendar, Toys and games, Shopping, School activities, Fruit and vegetable. In this study, the writer used Color for developing E-worksheet.

### **Interactive learning**

Interactive learning means that students are active participants in the learning process. According to Sessoms (2008), it necessitates the students to interact with the content through a combination of the abstract and the concrete. He further stated that while the traditional models of learning require a teacher-centered approach, this kind of learning transform the teacher-centered approach to a student-approach. In the student-centered approach, interactive learning is supported by tools that actively engage the students. The common problem faced by the learner is to focus on what they learn. An alternative to solve such problem is using interactive media in learning.

### **Interactive Multimedia**

Interactive multimedia is a media which allows or active participation by the recipient, hence interactivity. It means that the media can be used by students every time and everywhere, so they can learn by themselves.

The teachers and students will operate the multimedia by using the computer as an assisted tool. According to Mayer (2003:5), in computer-based environment,

known as multimedia, the external representations may include spoken word, which enter through the ears, and animation, which enter through the eyes.

### **Worksheet**

Student worksheet is one of the appropriate learning activities for students. It is helping students to add information about the concept learned through systematic learning activities (Suyitno, 1997: 40).

### **Research and Development**

Research and development (R & D) is a system of research which is finding or developing new products. According Gall and Borg (2003), educational research and development is an industry-based development model in which the findings of research are used to design new products and procedures, which then are systematically field-tested, evaluated, and refined until they meet specified criteria of effectiveness, quality, or similar standards. Furthermore, Borg and Gall (2003:570) is conducted in ten steps, they are: 1) assess needs, 2) planning, 3) developing preliminary form of products, 4) preliminary field testing, 5) main products revision, 6) main field testing, 7) operational product revision, 8) operational field testing, 9) final product revision, 10) dissemination and implementation.

### **DISCUSSION**

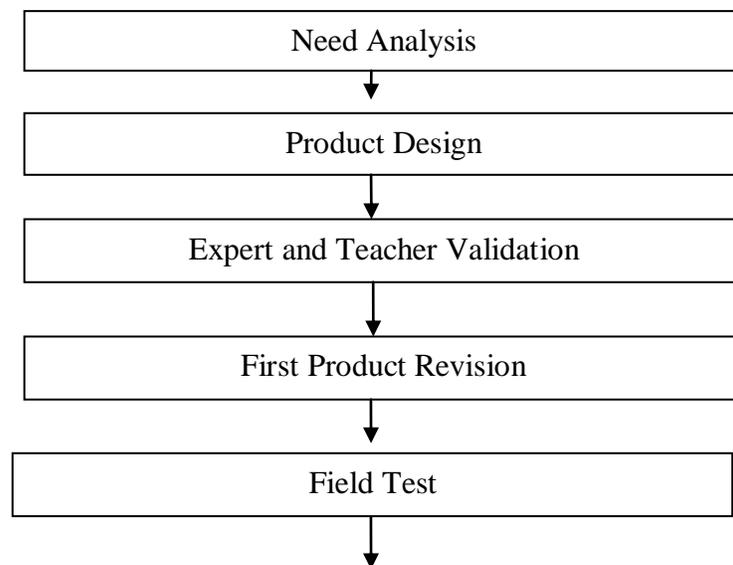
The study of this research is using the research and development approach. It

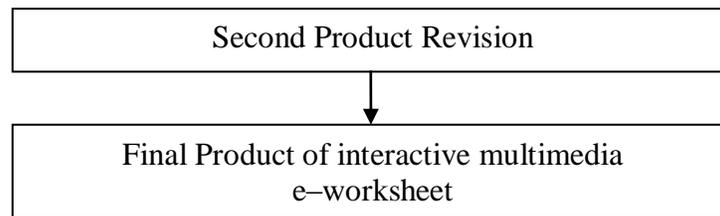
aimed to develop an English interactive multimedia students' e-worksheet to help the elementary student grade fourth in majoring English. It is using ten steps conducted by Borg and Gall. They are 1) assess needs, 2) planning, 3) developing preliminary form of products, 4) preliminary field testing, 5) main products revision, 6) main field testing, 7) operational product revision, 8) operational field testing, 9) final product revision, 10) dissemination and implementation. However, according to Borg and Gall, the above R & D cycle can unlikely be conducted by graduate students for the cycle is very expensive to carry out. Therefore, the writer used the following seven R & D stages, which was half of the Borg and Gall's (2003: 570).

It started from mapping of the students and teacher's needs analysis which was beneficial to give information to the development of the product, namely interactive multimedia e-worksheet for the

fourth grade students of elementary school. The second stage was developing preliminary form of products, including the syllabus, students' worksheet book and interactive multimedia.

The third stage was expert and teacher validation. The products were validated by the experts and English teachers, and they were revised based on the experts' and the teachers' judgments and suggestions. Then, the next stage was main field testing which the products were trying out in one class to see the clarity of the materials and the interactive multimedia, attractiveness, level of difficulty, practicality and effectiveness of the products. After having the try out, I would make improvements if they were necessary. Next, after having the final revision, the learning material was ready to produce. The following is the table which offers a framework for developing the product.





Model of R & D design adapted from Borg and Gall (2003: 570)

In developing the interactive multimedia of listening comprehension, it began with the need analysis stage. This stage was the initial stage which was intended to get the initial data and also the need of the students in the teaching and learning process. By doing the need analysis, the interactive multimedia E-Worksheet was developed based on condition and situation faced by the students.

Basically the purpose of this step was to study the basic problem possibly faced by the students in doing their textbook worksheet. It provided an evaluation of the need in order to deal with their basic problem. This step was conducted by doing interview. The purpose was to know how textbook worksheet was conducted in the English lesson, and what the teacher and students' problem in the teaching and learning process.

In designing the E-worksheet for year four students of elementary school, it was necessary to construct the materials and tasks based on the Content standard consisted of Standard of Competence, Basic Competence, language skill, number of meeting.

The materials were taken from syllabus and some books as the sources. It made according to the need analysis stage and suitable for the fourth grades. The writer combined the materials from the books and some webs.

After the set of the materials and tasks had been established, the step for designing the initial draft of the E-worksheet was begun. The purpose of this step was to design the prototype of the media developed.

The develop stage contained the experts and teachers validation and also the developmental testing. The experts' validation towards the interactive multimedia E-Worksheet developed was conducted upon the aspect of substance of the material, the media design aspect, and the quality of the media aspect. Such validation was intended to find and fix the possible shortcomings as well as improve the quality of the media developed. The learning material was validated by three experts and a teacher. The teacher who was responsible for the validation was the teacher who taught for many years and had many experiences in teaching English at elementary school. The next validation

was asked from two senior lecturers were competent in designing curriculum for English course. The last is an IT expert who competence in designing multimedia products.

Receiving the teacher's and expert's validation, I made some revisions to make my product better. Some suggestions that the teachers and experts proposed became the basis of the revision.

During the study in some Elementary Schools in Semarang, there were two actions that were taken. They were the preparation of try out and the try out.

Before conducting the try out, the writer tried to get the permission from the schools dealing with the study that I would conduct. The writer met the headmasters and got the permission. Then, the writer discussed the try out schedule with the teachers. The final step in the preparation was to meet the English teachers, to discuss the technical process in doing the E-worksheet materials. After that, the writer handed the E-worksheet tutorial including the passwords for their students and ask their email.

The try out was conducted for a day. The try out was started by the introduction from the teacher about the use of the E-worksheet. The teacher gave some explanation to the students about the E-worksheet that would be used.

On the same day, the teacher asked the students to open the website of the E-worksheet. In this day, the students were asked to do the tasks.

After trying out, the writer had the second revision. The revision was done according to the result of the questionnaire given to the students on the last day of try out. The teacher's and students' suggestions would also be a consideration to determine what change should be made. From the result of the questionnaire from both teacher and students, it can be concluded that the Interactive Multimedia E-Worksheet since the point was 40. It means that was very well and there were no any recommendations which were given, the Interactive Multimedia E-Worksheet would not get revised again.

After having the final revision, I created the fixed learning material to the students. The material which had passed the essential steps by acquiring several improvements from the experts, teachers and students was edited and revised in order to generate better products. The final interactive multimedia E-Worksheet of English could be opened on [www.hariseduworksheet.com](http://www.hariseduworksheet.com).

## CONCLUSION

Referring to the development and implementation of the interactive multimedia E-worksheet, four points are taken as the conclusion.

First, in the need analysis of the define stage, the result of interview between the teacher and the writer shows that the teacher has difficulty in conducting teaching and learning process because the teacher is only equipped with a textbook

worksheet with limited source. Besides, the result of interview shows that the students have difficulty in understanding the materials given by the textbook worksheet. It is caused by their lack in understanding the instructions giving by the book. This condition makes the students difficult in doing the tasks in the textbook worksheet.

Second, it has been developed an interactive multimedia CD, which is already relevant to the material substance, media design, visual communication design, and media quality. It has been conducted through three stages of the define stage, design stage, and development stage. It begins with the define stage in which the writer does the need analysis, learner analysis, and task and concept analysis. Conducting an interview and an observation are two activities in collecting the data related to the need of the students and teacher in the teaching and learning process. The next stage is the design stage. In this stage, the process of making the prototype of the multimedia is begun. The media selection, media selection, format selection, and initial design are the three phases in conducting the design stage. In this stage, the multimedia material is developed by combining various types of media format. It provides the material by combining audio, pictures, video, and text. In develop stage, the product then is evaluated by some experts until it has reached the final revision. The experts of the aspect of substance of the material, media design aspect, and media

quality aspect have been asked to conduct validation toward the relevant aspects.

Third, the use of the interactive multimedia E-worksheet gives some positive influences for the students in the teaching and learning process. It is proved by the result of the questionnaire given to the students. It shows that the use of the E-worksheet can increase their interest and motivation in learning English. Besides, the use of the E-worksheet also influences the students' awareness, attention, inquiry and discovery, and communication ability in the teaching and learning process.

Fourth, the use of the interactive multimedia E-worksheet is very effective to make students more discipline in doing the tasks given by the teacher. They can do the tasks anywhere as long as there is an internet network there. There is no more reason not to do the tasks given by their teacher. It can be showed in the checklist of the observation.

Being able to teach is not the only task for teachers. They also need to develop the material used in teaching process since not all the materials are provided and suitable with the students' need.

The teacher's ability in utilizing multimedia is definitely required. Nowadays, most teachers are able to use computer. Computer is not only used to type documents. However, computer enables teachers to explore their creativity in creating an innovation in teaching process. They need to learn how to design

and develop multimedia material by using various computer programs.

Based on the result of this study, there are some suggestions for the students offered by the writer as follow:

Students need to have more practices in learning English since English is a gate that connected people around the world. By having a lot of practices, they will get more input in improving their English.

Most students are able to operate computer now. They even like to use internet access for different purposes. By looking at this condition, students should be to control their ability in utilizing computer and internet. The utilization of computer and internet by students need to be guided to learn English because there are many English materials available in the internet.

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