

Interactive Learning Multimedia in Cirebonese Language to Enhance Students Learning Outcome

Ahmad Ripai* and Basuki Wibawa

Abstract--- This paper describes the development and validation of interactive multimedia in Cirebonese language learning for the junior high school of the eleventh-grade students. The approach used is research and development. In producing effective and interactive learning media. There are three procedural stages : a) identifying the stages; b) developing stage, c) the stage of evaluating and revising. The results of interactive multimedia products are in the form of the Cirebon language learning CD. The results of product validation showed that t , $3,0569E-18$ or $= 3.0569 \times 10^{-18}$ smaller than t table at a significance level (α) amounted to 2.034515 0.05, It means it rejects H_0 and accepts H_a . It can be concluded that the Cirebonese language learning using developed interactive multimedia is effective in improving students' learning outcome. Therefore, the use of the Cirebon language learning multimedia has a positive influence in improving student learning achievement, so the decision to develop and utilize interactive multimedia for Cirebon language learning is very important to do.

Keywords--- Interactive Learning Multimedia, Cirebonese Language, Learning Outcome

I. INTRODUCTION

Information technology in recent years have grown very rapidly, thus changing the paradigm of the community in seeking and obtaining the information is no longer limited to information newspapers, audio-visual and electronic, but also sources of other information on them through the Internet. The influence of the development of information and communication technologies in the learning process is marked by the emergence of a variety of educational media from simple educational media, development of instructional media to internet-based learning. The development of instructional technology in education promises great potential for changing the way a person to learn, to obtain information, to customize information and others.

Learning media also provides an opportunity for educators to develop learning techniques so as to get maximum results. For instance, for students, the use of learning media is expected to make them easier to get the information because they do not reach from merely the textbook. The ability of instructional media technology has developed rapidly and will further add to the ease in getting information for the sake of learning. In learning activities, teachers are often encountered with abstract material and beyond the everyday experience of students. As a consequence, teachers get some difficulties to provide some teaching material and students get some problems to understand. Visualization is one way that can be done to make something abstract to be real. Images the two-dimensional or three-dimensional model is a visualization that is often used in the learning process. Visualization in the learning process develops in the form of moving images (animation) that can be added to the sound (audio). Serving audio-visual or better known as the learning media is expected to make the visualization more attractive.

Ahmad Ripai*, Post Graduate Jakarta State of University. E-mail: ahmadripai_tp10s3@mahasiswa.unj.ac.id/ahmadripai.snj@gmail.com
Basuki Wibawa, Jakarta State of University. E-mail: bwibawa@unj.ac.id

Edgar Dale in Heinrich Robert et al. described the importance of visualization and verbalist learning experience called "Edgar Dale Cone experience". According to *Edgar Dale* in (Heinich, Molenda, Russell & Smaldino, 1996: 16), that there is a continuum from the concrete to the abstract between direct experience, visual and verbal in instilling a concept or understanding. The more concrete experiences will be better to ensure the learning process. Thus, that visualization is easier for people to grasp the understanding.

Cirebon language lesson, which is the local content subjects in the learning process still face many obstacles. For instances, teachers have not met in accordance with the required qualifications and competencies, lack of learning tools that support unavailability of teaching media. Other factors are the lack of interest of students in learning Cirebonese language and inadequate allocation of instructional time also hindered the learning process a Cirebonese language lesson. These obstacles are very influential in the language learning process and results of Cirebon. The effort to facilitate the Cirebonese language learning process using media has prompted researchers to develop instructional media for this subject.

Multimedia comes from the word multi and media, multi is derived from the Latin (nouns) meaning a lot or mixed. The word media comes from the Latin media, the medium which means the intermediary or something that is used to deliver, convey or carry something. Multimedia is a combination of computer and video, or multimedia is a tool that can create a dynamic and interactive presentations, that the combine text, graphics, animation, audio and video and image video (Robin and Linda, in Famukhit, 2013). Tay Vaughan (2008: 1), defines the multimedia is a combination of various media texts, images, video, music or handwritten. For the computer, the information for, all prepared from digital data. Oblinger in Munir (2012: 2), defines the multimedia represents the union of two or more communication media such as text, graphics, animation, audio and video with the characteristics of computer interactivity to generate the attractive presentation. Meanwhile, Mayer believes that using a multimedia presentation of material can directly use both of the words and pictures at the same time. The definition of 'words' here is the material presented in the form of verbal or verbal form, for example using text words printed or uttered. What is meant by 'image' is the material presented in pictorial form or shape of the image, can be in the form of static graphics (illustrations, graphs, photos and maps), or use dynamic charts, animation and video (Richard E. Mayer, 2009: 2-3). According to Plomp & Ely (1996: 221), multimedia is described as a dynamic process of transformation of technologies to develop and to progress in making the understanding, and its name changes from years to years such as interactive video, interactive media, the combination of media, hypermedia and multimedia. Multimedia packaged as a product uses more than one medium as a communications tool, for example, text, images, movies, sound, graphics and animation in various combinations. They are integrated for use with computers that make it easier to interact.

Research on multimedia has been conducted by several researchers including: Diane P. Chambers and Kaye Stacey "Developing and using Multimedia Effectively for Undergraduate teacher education" Australian Journal of Educational Technology 2005, 21 (2) 211-221. Other researcher Mohd Shaferul Bin abd. Majid et al, The Development of Technical English Multimedia Active Module to Enhance Student Centered Learning, Procedia-Social and Behavioral Science 67 (2012) 345-348. The research we conducted focused on interactive multimedia that was developed to improve Cirebon language learning.

II. METHODS AND STEP-STEP RESEARCH

This research adopts the development of research known Research and Development (R & D). Research and development in education is a process to develop and validate a product of education including material objects and procedures such as media, methods and learning models. In accordance with this definition, this research seeks to produce effective and interactive learning media. Procedural model employed Dick & Carey's development design which consists of three main stages of the systems approach a) identifying the stages; b) developing stage, c) the stage of evaluating and revising (Supaman, 2004: 13).

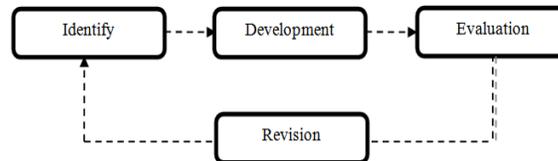


Figure 1 : stages of the systems approach

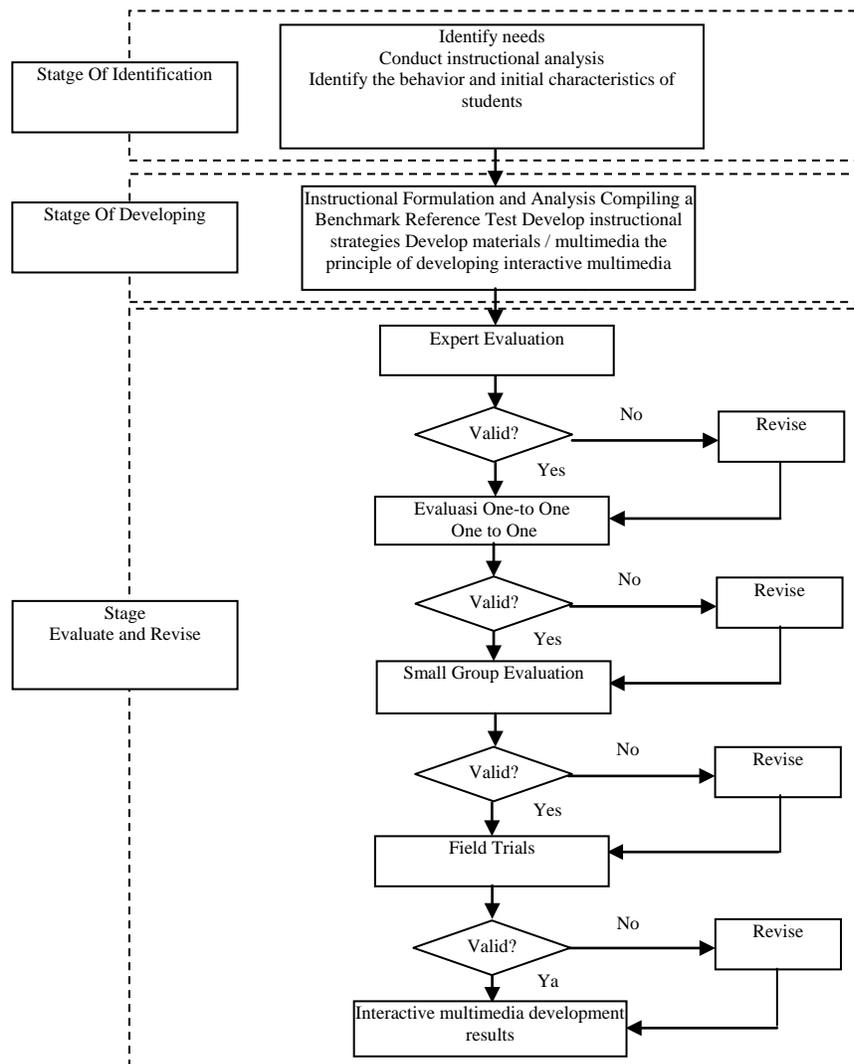


Figure 2. Step-step of Cirebon Language Interactive Multimedia Research and Development

III. RESULT

1.1. Product Interactive Multimedia of Cirebon Language Learning

The results of interactive multimedia products are in the form of the Cirebon language learning CD. Finally, Cirebonese language learning media can be final product (final draft) after being revised which is feasible theoretically and empirically.

Display learning multimedia of Cirebonese language :



Figure 3 : The initial display of interactive learning multimedia in Cirebon language



Figure 4 : Advanced Display of interactive learning multimedia of Cirebonese language

1.2. Effectiveness Multimedia

The effectiveness of Cirebonese language learning multimedia program which has been developed are measured conducting *Pre- and Post-Test Test and statistical analysis with T test*. Pretests and final tests are conducted to see

the extent to which the developed product can improve learning outcomes or achievement of learning objectives. The final test given to students after participating in learning activities is in the form of formative test. Its function is expected to obtain the data regarding developed language learning media program for Cirebonese subject.

Initial test scores and final tests of learning analyzed by paired T-test, refer to a design of experiments (one-group pretest-posttest design O X O). (David R Krathwohl, 1998:509). Because the T-test is one test of basic statistical inference in statistical analysis t test assumptions include properties "robust" then, the assumptions of normality and homogeneity of variance might not be a serious problem (if neglected). Thus, it is assumed normal and homogenous population. (Nancy L Leech, Karent C. Barrett and George A. Morgan, 2005: 27-28).

(paragraf di bawah ini pengulangan paragraf 1 atas)

To determine the usefulness of the multimedia program, the effectiveness test conducted. This test is in the fograprm of the pretest and posttest which aims to determine the extent to which developed products can improve learning outcomes expected. The results of pre-tests and post-tests are described as follows: The data above is analyzed using t-test with the Microsoft Excel program and it shows in the following table:

(Klo bisa tabel nya di sederhanakan yang lebih mudah dimengerti)

t-Test: Paired Two Sample for Means

	<i>Post- Test</i>	<i>Pre-Test</i>
Mean	65,88235294	50,44117647
Variance	53,74331551	50,557041
Observations	34	34
Pearson Correlation	0,733519027	
Hypothesized Mean Difference	0	
Df	33	
t Stat	17,06730894	
P(T<=t) one-tail	3,0569E-18	
t Critical one-tail	1,692360258	
P(T<=t) two-tail	6,1138E-18	
t Critical two-tail	2,034515287	
T-table: 2.034515	2.034515	

interpretation:

Based on the Table 4.10, it can be concluded that: First, Because t hit, 3,0569E-18 or = 3.0569 x 10-18 is smaller than t table at a significance level (α) amounted to 2.034515 0.05, then it rejects H_0 and accepts H_a . It concluded that the Cirebonese language learning process using developed instructional media program is effective in improving students' learning outcomes. Second, mean scores after using Cirebonese language learning media is higher (better) than before using it. It is shown in the table Paired Sample Statistics, where the mean score before using amounted 50.44117647. While the mean score after using media language learning Cirebon amounted

65.88235294. This means that Cirebonese language learning media has a positive effect. Thirdly, Cirebonese language learning media program had a positive influence. Hence the decision to develop a media program on Cirebonese language subject has practical significance.

IV. DISCUSSION

The results of our research conclude that interactive multimedia for Cirebon language learning is effective in improving the quality of Cirebon language learning, especially in junior high schools in the city of Cirebon. This is not very different from the results of research conducted by Diane P. Chambers and Kaye Stacey, "Developing and using Multimedia Effectively for Undergraduate teacher education" Australian Journal of Educational Technology 2005, 21 (2) 211-221 who also found the effectiveness of multimedia in learning. And the results of this study are also almost the same results with the research of Mohd Shaferul Bin abd. Majid et al., The Development of Technical English Multimedia Active Module to Enhance Student Centered Learning, Procedia-Social and Behavioral Science 67 (2012) 345-348 That Multimedia is capable of Enhancing Learning.

This means that the research we are doing is increasingly empirically strengthening that multimedia plays a role in improving student learning outcomes, especially in Cirebon language learning. The results of our study at the same time support the truth of the learning theory expressed by Edgar Dale theory described the importance of visualization and verbalist learning experience called "Edgar Dale Cone experience" Heinich, Molenda, Russell & Smaldino, 1996: 16). According to Edgar Dale in that there is a continuum from the concrete to the abstract between direct experience, visual and verbal in instilling a concept or understanding. The more concrete experiences will be better to ensure the learning process. Thus, that visualization is easier for people to grasp the understanding.

V. CONCLUSION

Interactive multimedia research results in Cirebon language, as well as other studies related to multimedia effectiveness in improving student learning achievement, show that multimedia has proven effective in improving student learning achievement. Therefore, the use of the Cirebon language learning multimedia has a positive influence in improving student learning achievement, so the decision to develop and utilize interactive multimedia for Cirebon language learning is very important to do.

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