The Development of Interactive Instructional Media Based on Behavioral Perspective to Improve the German Skills of Senior High School Students Grade X

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***Abstract*—This research and development aims to produce interactive instructional media based on behavioral perspective. This study belongs to a research and development which uses the *R&D* model by Borg and Gall. The result of the validation and trial process shows that the developed interactive instructional media is in the criteria of very good. This result indicates that the media is proper to use in learning German. The result of hypothesis testing provesthatthere is a significant difference between the students' learning outcome who were taught with the interactive instructional media based on behavioral perspectiveto improve the German skills of the Senior High School Students grade X and the students learning outcome who were taught withPower Point. Then, it can be concluded that the students' learning outcome who were taught with the interactive instructional media based on behavioral perspectiveto improve the German skills of the Senior High School Students grade X is higher than the students' learning outcome who were taught with Power Point**

Keywords— Interactive instructional media based on behavioral perspective; German skills

I. INTRODUCTION

The mastery of foreign languages is very important to be mastered as provisions to step into the life of globalization.

The use of media is expected to optimize learning activities. The attractiveness of a media can be an attraction of the media itself. The use of media in learning can help improve student concentration. Media in learning can help students understand the material faster and better, so that the knowledge obtained will last a long time.This is in line with the results of research from Woo stated that "basedon the research results, when designing digital game based learning (a media), designers should increase motivation and germane cognitive load to enhance learning effectiveness" [40].

Advances in technology and information allow teachers to choose various media that support the delivery of material. This is in line with what was conveyed by Li and Shieh "The development ofglobal education in past years presents plural,innovative, and open new atmosphere, mainlybecause of changeable technologies and rapid boom of knowledge" [21].

The lack of media use in learning German is also found in a study by Sambani, Heavenly and Octaviani that learning German is still lacking attention because students are less interested and learning German is difficult. Based on the description above, researchers are interested in conducting research into the development of interactive learning media based on behavioral perspectives in learning German. English. The formulation of the problem in this study are: (1) Is interactive learning media based on behavioral perspective appropriate for use by class X high school students? (2) Are interactive learning media based on behavioral perspectives more effective than media powerpoints in learning German in class X high school students?

II. METHOD

The method used in this study is research and based interactive instructional media in learningEnglish. They are: (1) preliminary, it involved some activities, such as identifying instructional goal, conducting instructional analysis, analyzing learners and context, writing performance objectives,developing assessment instrument, developing instructional strategy, developing and selecting instructional materials; (2) planning, it was done by making manuscript, schema of the media, storyboard and then collecting the instructional material and picture, recording development which uses R&D model by Borg and Gall[5] and combined with instructional design model by Dick and Carey[12]. This research was conducted in Senior High School of Harapan

Mekar Medan which is located on Jl. Marelan Raya No. 77 Medan. The subject of this research is the tenth graders of the school.

There are five steps to produce this local culture and creating the audio/video; (3) development, it was done by completing the media with learning guidance, basic competence, content, exercise, summary, evaluation, feed back and closing; (4) validation, the media was validated by content experts, instructional design experts, and instructional media experts. The product is revised based on their assessment, critic and suggestion; (5) trial test, it included individual trial test, small group trial test and field trial test. The assessment of the trial test was analyzed to do the next revison toward the product.

The data was analyzed by using quantitative descriptive analysis. The data was analyzed by using descriptive statistic technique. The qualitative data such as "Very Poor", "Poor", "Enough", "Good" and "Very Good" was changed into quantitative data in the scale of.

III. RESULT AND DISCUSSION

A. The Trial Test of the Product

Interactive learning media behavioral perspective in learning German that was developed was validated by six experts with specifications, namely: 2 experts in English learning material, 2 experts in learning design and 2 experts in learning media. After going through the validation phase, the developed media is tested on users (students) with the specifications: 3 students in individual trials, 9 students in small group trials and 34 students in limited field trials.

B. The Effectiveness of the Product

Pretest data normality test results in the experimental class obtained Lhitung <Ltable (0.106 <0.149), and in the control class also obtained Lhitung <Ltable (0.081 <0.181). The same thing happened in the results of normality test posttest data of the experimental class with Lhitung <Ltable (0.122 <0.149), and the control class obtained Ltitung <Ltable (0.084 <0.153). Thus the posttest and pretest data in the experimental class and the control class were normally distributed at the α significance level of 0.05.

Homogeneity test results of pretest and posttest data in the experimental class obtained Fcount <Ftable (1.29 <1.82), then the two data groups in the class have the same or homogeneous variance. Then in the homogeneity test of pretest and posttest data in the control class also obtained Fcount <Ftable (1.29 <1.82), it can also be concluded that the two data groups in the class have the same or homogeneous variance.

hypothesis with the t test (one-party test), the obtained tcount = 3.48 and ttable = 1.669, so that tcount> ttable at a significance level of α of 0.05. Based on these results, then Ho is rejected and Ha is accepted or in other words there is a significant difference between student learning outcomes in classes taught with interactive learning media based on behavioral perspectives with student learning outcomes in classes taught with Power Point presentation media at the significance level of 5 %.

It can be concluded that interactive learning media based on behavioral perspectives is more effectively used in learning German in class X high school compared to using PowerPoint media.

IV. CONCLUSION

Based on the formulation, objectives, research results, and research discussions on the development of interactive learning media based on the behavioral perspective stated earlier it can be concluded as follows:

Products in the form of interactive learning media based on behavioral perspectives in class X students of Al-Hikmah Marelan High School have results that are worthy of being the final product that can be disseminated and implemented to users. This is made clear by several stages, namely validation to material experts (94.13%), media experts (90.18%), individual trials (87.59), small group trials (93.51), and field trials (92.59). All assessment results obtained at that stage obtained a total score of 92.59% included in the "very good" category.

Based on the results of data processing the average value of student learning outcomes using interactive learning media based on behavioral perspectives with student learning outcomes using powerpoint media shows that students who use interactive learning media based on behavioral perspectives are "more effective" than students who use powerpoint media. This is indicated by the calculation results obtained t count = 3.48 and t table = 1.669 where 3.48> 1.669 for the significance level ∝ of 0.05. The effectiveness value of interactive learning media based on a behavioral perspective is higher at 83.06% than the effectiveness value using powerpint that is equal to 75.25%.

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