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DEVELOPMENT OF ANDROID-BASED LEARNING MEDIA CONTAINING LOCAL WISDOM IN ENGLISH COURSES

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Abstract. English is the first foreign language that is considered important for accessing information, absorbing and developing science, technology, arts and culture, and training relations with other nations. This study aims to develop and produce a product in the form of Android-based learning media in English courses and to determine the effectiveness of Android-based learning media in improving student learning outcomes in English courses at Jenderal Soedirman University. This study is classified as development research (Research and Development). Development research is used to produce certain products and test their effectiveness. The study showed positive results. The contents of the material and quizzes presented in this application are nine, namely, greetings, introductions, vocabulary, pronouns, becoming, gratitude, apologies, adjectives, prohibitions, and two types of quiz models, namely multiple choice and essays, which aim to test the limits of students' understanding of the material given. The results of the research and testing, design, and manufacture of Android-based English learning media can be concluded. Specifically, Android-based English learning media makes it easier for students to learn English without opening notebooks again. Android-based English learning media is created using Smart Apps Creator. In its appearance, this media is made simple and uncomplicated so that students find it easy to use the media. This media is made to make it easier for students to learn both at school and outside of school.

Keywords: media, learning, English, local wisdom,

A. Introduction

Basically, each tribe certainly has its local advantages. Local advantages in an ethnic group can emerge according to geographical conditions, natural resources, human resources, history, and culture (Kastolani & Yusof, 2016) so that the birth of various local wisdoms of an ethnic group can be conserved from generation to generation, which in the end can play a role in strengthening the identity of a tribe and even the identity of a nation.

Banyumas is a district in Central Java with a variety of local wisdom that needs to be brought to the surface so that local cultural values do not experience a decline due to the rapid development of external cultural influences. The diversity of local wisdom of the Banyumas tribe, such as religious attitudes, responsibility, shame, humanity, mutual cooperation, and discipline, is part of the local wisdom in Banyumas (Kastolani & Yusof, 2016). Banyumas have a number of unique local cultural wisdom. Like *nyadran, among among, cowongan, and ebeg*. This kind of wisdom is an asset of great value that the younger generation should preserve.

Through this study, researchers offer a strategy to bring the local cultural wisdom of the Banyumas people to the surface so that various local Banyumas wisdom continue to exist in the fabric of social life. The strategy the researchers adopted was to integrate the local wisdom of the Banyumas people into English courses. This strategy is a concrete step for researchers to instill knowledge about local cultural wisdom in students so that the language skills possessed by students can be applied to introduce local cultural wisdom to the public both at the national and international levels.

One of the obstacles to teaching English at Al-Asyariah University Banyumas is the lack of teaching materials, which can lead to ineffective English language teaching. This is the basis for the researcher to raise the topic 'Integration of local wisdom of the Banyumas community in English language courses.' The results of this research will be packaged into a textbook, which is then expected to be used as the main teaching material for English courses at Jenderal Soedirman University, Banyumas.

This research aims to determine the effect of integrating local wisdom on students' English learning by considering the answers to the following questions. Is there a difference in English language learner skills between students taught by implementing the integration of local wisdom in English courses and those taught using conventional strategies?

B. Methods

The target population for this research was 155 second-semester students of the Non-English Education Study Program at Jenderal Soedirman University. The choice of this university was based on reasons because the strategy implemented emphasized activating students in discussions. This strategy is more suitable for students with sufficient background knowledge, so it is one of the reasons for choosing college students over students at school. This research was conducted at Jenderal Soedirman University, with the research subjects being 152 second-semester students of the Non-English Department at Jenderal Soedirman University. Samples were randomly selected for one class in the experimental group and another in the control group. The students' abilities were recognized as homogeneous and allowed me to decide on them to be selected.

There are twelve study programs consisting of 155 students in the second semester of the 2023-2024 academic year. Then, two classes were randomly selected as samples from 50 students. Group selection was based on random selection using a lottery. Random selection is done by tossing a coin 15 times and determining tails or heads. Then, it was decided to be divided into experimental and control groups. It is based on the appearance of the coin's head and tail. If a coin appears to have more heads than tails, it will be categorized as the experimental group and vice versa. Apart from that, this ensures that all aspects of the two groups (experimental and control groups) are the same or homogeneous.

This research combines quantitative and qualitative methods to be used together in a research activity so that data is obtained that is more comprehensive, valid, reliable, and objective, which is why the method suitable for use in this research is *Mix-method.* This research design uses *Sequential Explanatory.* Research model *Sequential Explanatory Design is* characterized by carrying out data collection and quantitative data analysis in the first stage and followed by qualitative data collection and analysis in the second stage to strengthen the results of quantitative research carried out in the first stage and then draw conclusions from the data analysis (Sugiono. 2010).

Based on the explanation above, the researcher formulated a research flow chart, which can be seen in Figure 1 below:
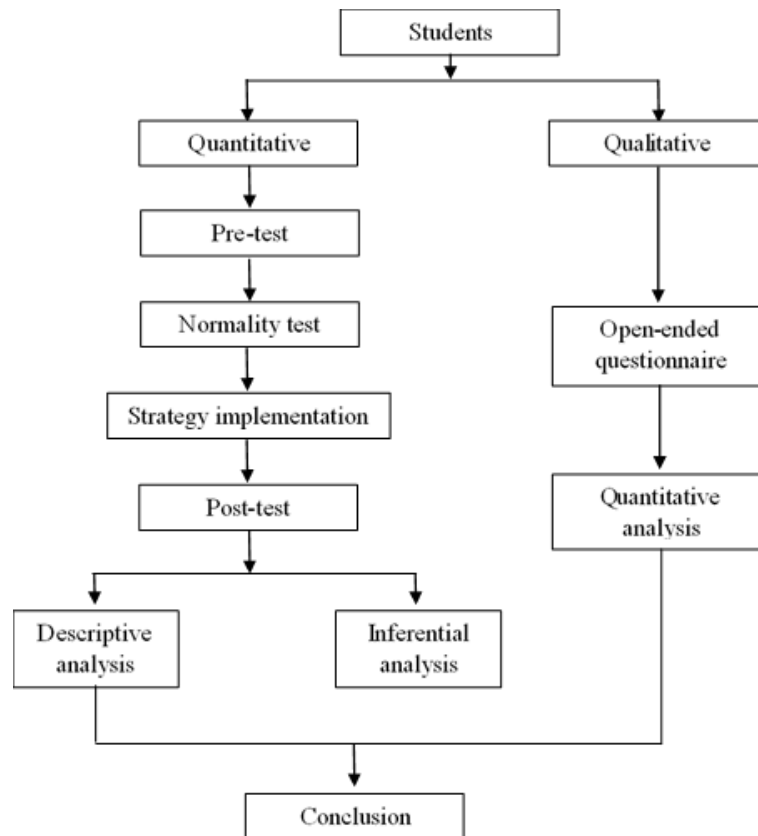
Figure 1 Research flow chart

The research instrument used to collect quantitative data was a description test consisting of a pretest and a posttest. Pretest is prerequisite material "*descriptive text,*" namely a detailed description of a particular topic; in this case, the study object is the Banyumas community's local wisdom. Meanwhile, the post-test is a performance description test where each student is tasked with introducing the local cultural wisdom of the Banyumas community by explaining what local cultural wisdom they already know. The pretest was given before implementing the learning strategy of integrating local wisdom in English lessons, and the posttest was given after implementing the learning strategy. This research was carried out over 8 meetings.

C. Results and Discussion

This section describes the research findings and verification of the research hypothesis. All data in this section is provided to determine whether the implementation of the integration of Local Wisdom in English Language Learning is effective in achieving students' English language skills or not, which is calculated through statistical procedures in hypothesis testing. In other words, the data was analyzed to provide a detailed explanation of the influence of integrating local wisdom in English courses. This study applies a quasi-experimental design because the data for this study is quantitative and supported by data based on the results of student activities and the feasibility of the study during the learning process, so this study also obtains qualitative data.

1. Data analysis from the English communication skills test instrument
   Post-Test Results

The post-test results in the experimental group and control group show that the average score for the experimental group was 79.63, while the average score for the control group was

56.76. The difference in average values between the experimental group and the control group is illustrated in Table 1 below:

Table 1. Post-test analysis results

	Experimental Group	Control Group
Min	70	50
Max	95	65
Mean	79.6324	65.7646
Std. Deviation	8.00408	11.72813
N	34	34

Source: 2024 Data processing results

The table above shows that there is a difference in the average score between the experimental group and the control group. This shows that the average score for student learning achievement in the experiment was 79.63, while the average score for students in the control group was 56.76. Minimum and maximum scores were revealed in both groups. This shows that the minimum value in the experimental group is 70 and the maximum value is 95, with a distance of 25 and a standard deviation of 8.00408. Meanwhile, the minimum score in the control group was 50, and the maximum score was 65, with a range of 50 and a standard deviation of 11.72813. The standard deviation in the two groups is also different. The treatment control group has a larger standard deviation value. This means that students' scores are more appreciated in the control group. The range and distribution of achievement scores after treatment in the control group are wider. Because the treatment in the experimental group had a lower standard deviation, we saw that students had more consistent reactions to the experimental group treatment. This data is also exemplified visually in Figure 2 below.
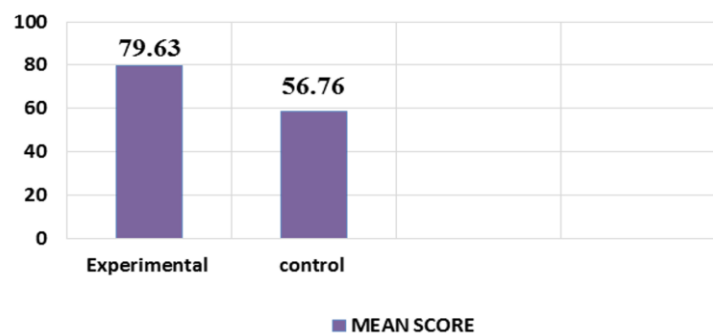

Figure 2. Post-Test average of experimental group and control group

The diagram above shows that the average value of the experimental group is different from the average value of the control group. This shows that the average score for the experimental group was 79.63 at the end of the study, while the control group was 56.76. This means that students' reading comprehension learning achievement after treatment in the experimental group was greater than that of the control group. Therefore, I conclude, based on these findings that the integration of Local Wisdom in English Language Courses has a positive effect on students' learning achievement.

2. Analysis of data from Non-Test Instruments from Student Activity Observation Results

Observations of student activities were carried out at each meeting, namely 6 meetings. The table of student activity categories can be seen in Table 2.

Table 2. Categories of student activity

Percentage	Category
90% <x ≤ 100%	Very active
75% <x ≤ 90%	Active
60% <x ≤ 75%	Less active
40% <x ≤ 60%	Not active
0% <x≤40%	Very inactive

Source: Suharsimi, A. (2006)

Table 3. Average results of student activity observations

Meeting	Percentage (%)	Category
1	64.43	Less Active
2	70	Less Active
3	80.47	Active
4	85	Active
5	95	Very Active
6	90	Very Active

Source: 2024 Data processing results

Average data from observations of student activities during the English learning process can be seen in Table 3. The table 3 shows the students' reactions during the learning process. This data shows that there were fewer responses from the students at the initial meeting. This is caused by several factors, including the difficulty of facing a new life atmosphere due to the COVID-19 pandemic. Several learning activities have changed drastically. The learning process is forced to be carried out online, even if there are only a small number of face-to-face meetings. Meanwhile, not all students are ready to face the new atmosphere. There are various reasons why students have difficulty getting an internet network, limited data quota, and some are going home. This is one of the obstacles to students' unpreparedness to carry out learning, so it affects students' lack of activity at the initial meeting.

Likewise, at the second meeting, it still seemed less active, however thus, positive reactions have begun to emerge from students even though they are still in the less active category. Researchers are trying to improve strategies so that students are enthusiastic about learning. All the shortcomings in the first to second meetings are evaluated. The results of the evaluation show that there are positive changes, such as students starting to appear active. Until the fourth meeting, even the final meeting showed a very active reaction in receiving English lessons integrated with local wisdom.

D. Conclusion

This study is based on various sources regarding the integration of local wisdom into courses as an effort to preserve various local wisdoms, which are currently threatened with being displaced due to the inevitable influence of foreign culture. Efforts to maintain and preserve a number of local wisdom from the Banyumas tribe are actions that should be carried out by generations, especially generations of the Banyumas tribe community, because if it is not the local community, in this case, the Banyumas tribe community, who do not or are reluctant to preserve local culture, then wait for the extinction of a number of local wisdoms little by little. A little. Integrating local wisdom in courses is a concrete action to preserve local culture. The main point of this study reveals the influence of local wisdom integration on students' English learning. The research results show that integrated local wisdom in English language learning statistically positively impacts students' skills in using English as a communication tool in everyday life compared to those taught using conventional strategies.

E. References

Kastolani, & Yusof A. 2016. The Relationship between Islam and Local Culture. A Study of the Nyadran Tradition in Sumogawe Village, Getasan Subdistrict, Semarang Regency. *Journal of History and Culture*, 4 (*1*), 52-53.

Nadlir, 2014. *The Urgency of Local Wisdom-Based Learning* Journal Islamic Religious Education Vol.02 number 2 November 2014

Soehardi. (2002). The Values of Oral Traditions in Javanese Culture. *Science*, 14, 2.

Sugiono. 2010. Quantitative, Qualitative and R&D Research Methods. Bandung: Alphabeta.

Sugiono. 2012. *Combination Research Methods (Mixed Methods)*. Bandung: Alfabeta.

Suharsimi, A. (2006). Research procedures are a practical approach. Jakarta: Rineka Cipta

Suherman, 2017. *Development of Social Sciences Teaching Materials Based on Local Wisdom AIQ NYERENG Tunjung Tilah Empak Bau) on the Theme of Introduction to the Natural Environment.* Postgraduate Thesis, Maulana Malik Ibrahim State Islamic University, Malang