

The development of iv grade thematic teaching materials based on local culture of east sumba

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Abstract: This research was conducted based on the situation in the Social Studies (IPS) learning process which was not effective and efficient because problems were often encountered, that is verbalism in learning because teachers interpreted teaching materials as mere tools and availability of teaching materials was not relevant to the material being taught. This study aims to develop teaching materials based on the local culture of East Sumba that are relevant to Social Studies material in class IV that are valid, practical, and effective. This type of research used development research with the ADDIE Model, which consists of 5 stages, that are Analysis, Design, Development, Implementation, and Evaluation. Collecting research data using questionnaires and tests. The research subjects for class IV SDK Santo Yosep 2 were 25 people. Data collected consisted of expert validation data, teacher and student response questionnaire data, as well as test result data. The results showed that development of teaching materials for IPS class IV SDK Santo Yosep 2 had very good qualifications with an achievement level of 90.41%. The achievement of this quality is obtained from the calculation of average media validity level of 90.83% with very valid qualifications, the practicality level of media is 96.40% with very practical qualifications, and the effectiveness level of media is 84% with very high/effective qualifications. So it can be concluded that diorama media developed is valid, practical, and effective.

Keywords: Teaching Materials, local culture, social studies (IPS)

PRELIMINARY

21st century learning requires students to be able to solve problems encountered and create new innovations in learning. No exception learning in elementary schools. One of the innovations that need to be done in thematic learning in elementary schools is contextual learning where the learning is adapted to the local cultural context. As explained by Mardhiyah, et.al (2021) It can be interpreted that human life in 21st century has experienced many changes and also in this century requires quality human resources in all its efforts and work results.

Learning in schools always emphasizes learning experience of students. This experience is obtained from meaningful and contextual learning that is created in the classroom. Especially for elementary school students, meaningful and contextual learning can protect the stages of concrete to abstract thinking. One of the contextual learning that can be done is learning with the local cultural context approach because this is what students most often encounter in their daily lives. Plus according to Tinja, et.al (2017) it is necessary for cultural inheritance, which one can be achieved through education. This allows local cultural inheritance to be conveyed properly to the next generation (Laksana, et.al; 2016; Faisal & Sulkipani, 2016).

In relation to elementary schools, learning in schools is always assisted with media that can make it easier for students to understand the material provided and can accommodate every stage of thinking of elementary school students. One of them is the use of textbooks. According to Latifah (2018) Textbooks were guides that are used by both students and teachers and contain student activity guides and materials that make it easier for students to understand the material. Furthermore, the Ministry of Education and Culture (2013) said that student books used by teachers as guides that really help students understand the existing material need to be adapted to students' cultural backgrounds. Therefore, textbooks must be made with a contextual approach so that students can easily understand them because they are appropriate to the environment encountered in students' daily lives.

Based on the facts found in the field, the use of learning books by elementary school students generally has not been adapted to the cultural context of students' daily life so certain material is often difficult for students to understand. This is also in line with the findings by Zinnurain & Muzanni (2017); Lawe, et.al (2019); Lumban Gaol & Simarmata (2019) which stated that learning encountered is not contextually based including teaching materials used. Therefore, a reference book is needed that can be adapted to the local cultural context of students.

In particular, this is also experienced by students at SDK Santo Joseph 2, firstly, in thematic learning conducted in class, students still use material that is not contextual, in this case, it has not been adapted to the local cultural context. Even though learning is easy for students to understand if the material has something to do with things that are encountered in daily life. Second, innovations related to local cultural collaboration with

learning materials should need to be followed by teachers to increase teacher skills in creating contextual learning. Therefore, it is necessary to make teaching materials based on local culture so that it triggers teacher creativity and innovation in terms of innovation and creation.

Several previous studies have also produced thematic teaching material development products based on local culture and have been tested to see their efficiency in classroom learning. Some of them are researched by Divan (2018) regarding the making of class IV thematic teaching materials based on local Manggarai culture. Furthermore, research by Wijiningsih, et.al (2017) regarding the development of thematic teaching materials based on local culture in Bojonegoro district. In addition, research by Tinja, et.al (2017) regarding the development of teaching materials based on the local culture of West Manggarai. This research provides benefits for thematic learning that takes place in schools so that it is adapted to local cultural context of students so that it is easily understood by students,

This research is different from other studies because it collaborates the local culture of East Sumba with thematic learning that takes place in class V of elementary school.

Based on this background, the researcher will develop thematic teaching materials for class V based on the local culture of East Sumba. This research aims to produce products in the form of teaching materials based on the local culture of East Sumba.

METHOD

This research is research and development research. The product resulting from this research is East Sumba local culture-based thematic teaching materials for class V. The model used in this development research is ADDIE model which consists of five stages, that are analyze, design, develop, implement and evaluate. ADDIE model design is an interactive learning process with basic stages of learning that are effective, dynamic, and efficient. ADDIE consists of several systematic stages, which are analysis, design, development, implementation, and evaluation. ADDIE development model is simple and can be done in stages (Pribadi, 2014).

The object of this research is thematic teaching materials based on the local culture of East Sumba. The subjects in this study were teachers and fourth grade students. This research was carried out for 3 months in 2022. The data collection

techniques used in this study were observation, interviews, questionnaires, and tests. The research instruments used consisted of interviews, questionnaires, observations, and learning outcomes tests in the form of description questions.

The data analysis technique used is descriptive data analysis to calculate the percentage of validation questionnaires and practicality tests, attractiveness, and effectiveness as well as the results of learning outcomes tests on the pretest and posttest and to describe the feasibility, effectiveness, attractiveness, and practicality of product developed in the form of thematic teaching materials. Analysis of validity tests of material, media, and language experts was carried out by calculating the number of answer scores obtained from the questionnaire and calculating the percentage value with the following formula.

$$\text{Validity Level} = \frac{\text{Total Score Obtained}}{\text{Total Score}} \times 100$$

Furthermore, the value interpretation is carried out using the following criteria.

81% - 100%	: Very valid
61% - 80%	: Valid
41% - 60%	: Quite valid
21% - 40%	: Less valid
0 – 20%	: Not valid

The practicality, effectiveness, and attractiveness test analysis also through the stages of calculating the number of answer scores obtained from questionnaires. Test analysis of learning outcomes is carried out by quantitative descriptive analysis through the stages of calculating the total score of answers obtained and calculating the percentage obtained using the following formula.

$$S = \frac{R}{N} \times 100$$

Keterangan

S : Expected value

R : Total score of items/ total score answered correctly

N : The maximum score of the test

Furthermore, data interpretation is carried out based on the criteria of critical thinking skills as follows.

Intervals	Criteria
81% - 100%	High
61% - 79%	Medium
<60%	Low

RESULTS

The results of this research and development are thematic teaching materials for grade IV elementary schools based on the local culture of East Sumba. The basic competencies that students will achieve are Basic Competencies of Social Studies in class IV of elementary school. This research and development were carried out for fourth grade students in elementary schools, with the results aimed that is the quality of teaching materials in terms of validity, practicality, and effectiveness. Based on the research procedures of ADDIE model, development of teaching materials that have been carried out, the following results are obtained:

1. *Analysis*

The development of a product can begin with a problem in an existing product or problems can arise and occur because the existing or available product is not relevant to the target needs, learning environment, student characteristics, and so on. Based on the curriculum analysis, a study of curriculum and learning characteristics of social studies content was obtained

2. *Design*

The teaching materials to be developed contain the concepts and content of the product. After the product was completed the researcher compiled a teaching material Assessment Instrument. Based on the grid resulting from preparation of teaching material assessment instruments, the researcher made teaching material assessment instruments including media validity assessment instruments in the form of material expert validation sheets and teaching material experts, practicality assessment instrument teaching materials in the form of teacher response questionnaires and student response questionnaires and effectiveness assessment instruments teaching materials in the form of pretest-posttest.

3. Development

At this stage, the researcher carried out development, that is development of teaching material products based on the local culture of East Sumba

Expert Validation

Based on the development research that has been carried out, to determine the validity of teaching materials developed, the researcher carried out validation stage by several experts with predetermined criteria. The following is the validation of research conducted by the researcher:

To determine the validity of teaching materials used research data validation results from material experts and teaching material experts. Therefore, the following is a recapitulation of validation data from two experts:

Table 2 Expert Team Validation Recapitulation

No	Validators	Percentage of Assessment Aspects			
		Content Quality	Presentati on	Design	Learning
1	Material Expert	95.56%	80%	-	90%
2	Media Expert	100%	91.11%	90%	-
Average		97.78%	85.55%	90%	90%
Validity Percentage		90.83%			
Validity Category		Very Valid			

Source: Research Data (data processed)

4. Implementation

At this stage, the researcher implements teaching materials that have been validated by experts into the learning process at school. The form of implementation at this stage is applied to Social Studies learning in class IV SDK Santo Yosep 2 to determine the effect on quality of learning which includes practicality and effectiveness.

Implementation of large group trials

The following will describe the analysis results of the entire trial implementation, both small group trials and large group trials that have been carried out by researchers.

a. Practicality analysis of teaching materials based on local culture

The practicality analysis of teaching materials is based on teacher response questionnaires and student response questionnaires. Data from this questionnaire were analyzed quantitatively using a Likert scale with 4 intervals.

Practicality by Subject Try Class IV Teachers

The selection of practitioners is based on the consideration that they have ± 25 years of teaching experience. The results of filling out the teacher's response questionnaire are presented in the table below:

Table 3 Results of Teacher Response Questionnaire Assessment

No	Assessment Aspects	Item Number	Total score (Tsp)	Maximum Score (Tsh)	Aspect Percentage
1	Appropriateness	1 – 10	40	40	100%
2	Attractiveness	11 – 15	20	20	100%
3	Efficiency	16 – 20	20	20	100%
Amount		20 Items	80	80	300%

Source: Research Data (data processed)

Analysis level of practicality of teaching materials was obtained from the results of teacher's response questionnaire which was calculated using the existing formula (Akbar, 2013: 158), and practical percentage value (V_p) was obtained, that is: 100%

Practicality by Subject Trial Class IV Students

Furthermore, to examine the practicality of media, apart from the results of response questionnaire assessment by the teacher, the practicality assessment data also came from the results of student response questionnaire assessment which were divided into two groups in two stages of testing, that are small-scale trials and large-scale trials.

Table 4 Questionnaire Assessment Results

No	Assessment Aspects	Item Number	Total score (Tsp)	Maximum Score (Tsh)	Aspect Percentage
1	effectiveness	1, 6, 7, 8, 9, 10	223	240	92.9%
2	Attractiveness	2, 3, 4, 5	149	160	93.1%
Amount		10 Items	372	400	
Average			93%		

Source: Research Data (data processed)

Teaching material products are considered practical to use and suitable for use if the percentage of practicality is more than 70%. Thus, the practicality percentage value in small-scale trials is 93%.

To see the effectiveness of development of teaching materials can be obtained from the results of pretest and posttest carried out in large-scale trials. The target for testing media products was all fourth grade students at SD Santo Yosep 2, which were divided

into 2 groups, that are class A and class B. The number of students in class A was 16 people, while the number of students in class B was 9 people. The hypothesis testing in this study used Paired Sample T-Test with the help of SPSS 16 program. The results of this hypothesis test are presented in the following table:

Table 6. Paired Sample T-Test Results

Pair Difference						
				95% Confidence Interval of the difference		
	Means	std. Deviation	std. Error Means	Lower	Upper	Q
Pair 1	-26,400	11.165	2,233	-31,009	-21,791	-11,822

	Df	Sig.(2-tailed)
Pair 1	24	0.000

The second most important output in finding answers from research cases is whether there is an influence of the use of teaching materials in Social Studies learning. The formulation of the research hypothesis is:

H_0 : There is no difference in the average pretest and posttest scores

H_1 : There is a difference in the average pretest and posttest scores

With the condition of making a decision that is if the value of Sig. (2-tailed) < 0.05, then H_0 is rejected and H_1 is accepted. Conversely, if the value of Sig. (2-tailed) > 0.05, then H_0 is accepted and H_1 is rejected. Based on the output table above, it is known that the value of Sig. (2-tailed) is 0.000 < 0.05, then H_0 is rejected and H_1 is accepted. So it can be concluded that there is an average difference between pretest and posttest learning outcomes. This means that there is an influence on the use of teaching materials in Social Studies learning. Therefore, it can be said that teaching materials based on local East Sumba culture are effective for use in learning.

5. Evaluation(Evaluation)

Based on the data above, determining the quality of teaching materials based on local East Sumba culture shows the criteria of "very good or very high quality" with a percentage of 90.41% according to the standard description of teaching material criteria. Thus, the final conclusion of this development research is that teaching materials are classified as "Very Good" and are suitable for use in social studies learning in grade IV elementary school.

DISCUSSION

This research and development were carried out for fourth grade students in elementary schools, with the results aimed that is the quality of teaching materials in terms of validity, practicality, and effectiveness. The development model used ADDIE model research procedure where the steps are Analysis, Design, Development, Implementation, and Evaluation. After the development product is approved by the material expert validator and teaching materials expert, then it is tested for small groups and large groups.

Validation by material experts includes three aspects, which are content quality, presentation, and learning with their respective indicators. For the first aspect, content quality consists of 9 indicators and gets a total score of 43, for the second aspect, presentation consists of 4 indicators and gets a total score of 16, and for the third aspect, the learning aspect consists of 2 indicators and gets a total score. 9. If the total score obtained from these three aspects is combined, a final total score of 68 is obtained. Then, by calculating the percentage of validity, the result is a percentage of 90.83% with a very valid validity category. Therefore, it can be concluded that according to material experts, teaching materials developed by researchers are feasible to implement.

The practicality of making teaching materials can be seen from the teacher response questionnaire data and student response questionnaire recapitulation. The teacher's response questionnaire compiled by the researcher consisted of three aspects, which are aspects of feasibility of teaching materials in learning, attractiveness, and aspects of efficiency. For the first aspect consisting of 10 indicator items a total score of 40 was obtained, the second aspect consisting of 5 indicator items obtained a total score of 20, and for the third aspect consisting of 5 indicator items a total score of 20 was also obtained. If the total score obtained from these three aspects is combined, the final total score will be 80. So the practicality percentage obtained is 100% with the level of practicality in very practical category. For a group trial student response questionnaire using the same questionnaire instrument.

The effectiveness of developed teaching materials can be seen from the increase in the results of pretest and posttest scores. Based on the results of pretest and posttest data analysis that was carried out in a large group trial with one group pretest-posttest pre-experiment research design, it can be seen that the significance value of the results

of paired samples t-test Sig. $0.000 < 0.05$. This means that the initial hypothesis H_0 is rejected and the final hypothesis H_1 is accepted. Accepting H_1 indicates that teaching materials developed are effective in Social Studies learning. This effectiveness can be seen from the average posttest result of 70.88 which is greater than the pretest result of 44.48.

CONCLUSION

Based on the research and development of teaching materials based on the local culture of East Sumba, which have been passed by researchers, it can be concluded as follows:

1. The results of validation of material experts on teaching materials based on local culture that was developed get a percentage of 90% which means it is very valid. Furthermore, the results of validation of teaching materials experts on the developed teaching materials get a percentage of 90%, which means it is very valid.
2. The results of teacher's response questionnaire to teaching materials based on local culture get a percentage of 100% which means it is very practical. Furthermore, the results of student response questionnaire in the small group trial got a percentage of 93%, which means it is very practical which indicates that this teaching material can make it easier for students to understand the material and is practical for use in Social Studies learning.
3. The results of analysis of statistical data on the effectiveness of teaching materials using paired samples t-test obtained the value of Sig. $0.000 < 0.05$ so that the research hypothesis is accepted H_1 : there is an average difference between pretest and posttest. Based on the results of recapitulation, the effectiveness of East Sumba local wisdom-based teaching materials is included in the "high" criteria.

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