

# Development of Thematic Teaching Materials Based on Local Wisdom Values to Improve Fourth Grade Student Learning Outcomes in Elementary Schools

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**Abstract.** This study aims to describe the level of feasibility and effectiveness of developing thematic teaching materials based on local wisdom values to improve the learning outcomes of fourth grade students. This research was carried out in an elementary school in Palipi District, Samosir Regency. The subjects of this study were fourth grade students, totaling 30 students. This research method is development research from Borg and Gall. The results of the study show (1) the learning design developed is included in the very good criteria and is suitable for use; (2) the development of thematic teaching materials based on practical local wisdom values used to improve student learning outcomes; and (3) effective teaching materials are used to improve student learning outcomes. The results of the effectiveness of teaching materials of 92% are in the very good category.

**Keywords:** Thematic teaching materials, local wisdom, learning outcomes

## 1. Introduction

This study is a development study. There are several types of models for development methods. The development model used is approach. One of the programs aimed at achieving the country's educational goals is the organization and implementation of what is commonly known as Basic Education Units or Elementary Schools. Education is always evolving. One of them is to continuously improve the curriculum to improve the quality of education. Furthermore, the ever-evolving technological developments indirectly influence the development of current educational curricula [1], [2]. However, changes or curriculum developments implemented by the government are still of a general nature. So far, there is no curriculum in which the learning materials correspond to the student's environment, culture and local customs. Using materials that are appropriate to the student's situation, culture, and local customs is intended to make it easier for students to understand the material, and allows students to sort the material from the simplest and simplest to the most general.

It is intended to make students interested in understanding even the most complex and complicated things [3]. Interest in learning, or what is called interest in learning, is one of the most important factors for a student's learning success. In reality, we have to admit that there

are still many students who are not interested in actively participating in the process of learning activities that they are experiencing. Octaviani's research found that fourth-graders still tend to be indifferent to learning and passive in learning activities [4]. The effect of apathy on the student learning process is characterized by a perceived low student interest in learning and poor acquisition of learning outcomes.

Her one aspect of successful learning is when students have a high interest in learning and are ultimately able to produce satisfactory learning outcomes. Studies like those conducted by Tinja, Towaf and Hariyono showed that students' learning interest and learning activities increased after implementing thematic materials based on local wisdom [5]. Based on the results of research and development, teachers can use thematic teaching materials based on local wisdom as a source of learning. In order to overcome the difficulty of lack of teaching materials, teachers need to develop teaching materials that match the characteristics of students and the situations in which teachers teach. The availability of appropriate teaching materials based on local wisdom is expected to make learning more efficient and effective, ultimately improving student learning outcomes.

This is in line with research conducted by Halim, whose findings indicate that the local wisdom-based thematic materials developed in this study are highly effective in improving student learning outcomes. [6]. This is reflected in increased student learning outcomes after studying with thematic materials based on local wisdom. Significant improvements in learning outcomes demonstrate that the use of local knowledge-based thematic materials influences student learning outcomes.

Local wisdom is the view and knowledge of life and various life strategies in the form of activities that local communities undertake to address various problems and meet their needs[7]. The use and development of local wisdom as one of her learning materials trains each student to gain hands-on experience, discover for themselves the different knowledge they have learned, and connect them with other concepts. It can be done through learning activities. understood. This can be achieved through thematic learning. H. Blended learning uses themes to connect multiple subjects and provide a meaningful experience for students [4]. Furthermore, Octaviani states that subject-based learning engages students actively in the learning process, empowering them to solve problems and be creative when needed [4].

Through the development of thematic teaching materials combined with local knowledge, the aim is for students to directly experience new knowledge related to the situation, culture and customs of their hometowns, and to remember the local culture and customs. They and each student are interested in knowing the customs, cultures and customs of their respective regions, which is expected to increase their interest in the learning process[8].

A material is a set of materials systematically arranged to create an environment or atmosphere in which students can learn. Teaching materials serve as a vehicle for transmitting information and knowledge from teachers to students [9]. Materials are all materials (both information, tools, and texts) organized systematically to provide a complete mapping of the competencies acquired by students and used in the learning process.

Materials are systematically organized materials or learning materials used by teachers and students in the learning process of a school. Materials are all materials (both information, tools and texts) that are systematically arranged to reflect the competencies acquired by students

and used in the learning process for the purpose of planning and checking the performance of learning. Here is the complete mapping [ 10].

Its materials are learning resources intentionally designed for learning purposes. Teaching materials need to be developed to help teachers and students. Therefore, teachers should be able to adjust the process appropriately according to the student's needs. One of her student needs is facilities in the form of teaching materials[11].

According to Mr. Kosasih, teaching materials are divided into two types according to their usage: developed materials and used materials. (1). Design materials are materials that are specially designed as part of the classroom, enabling formal and systematically planned teaching and learning activities. For example, textbooks, reference books, picture books, newspapers, etc. Created and designed specifically to meet educational goals (2). Materials that are used for educational purposes or are not specifically designed for educational purposes, but are available and accessible because they already exist in nature or the environment and can be used for educational purposes.

The local knowledge found in some groups/indigenous peoples in Indonesia contains many noble values of the national culture that are still strong as national character identities. On the other hand, the value of local wisdom is often ignored because it is considered outdated. In fact, noble values can be nurtured from local wisdom, which serves as a model for the development of Indonesian culture[12].

Local wisdom is customs that are firmly embedded in the life of a particular community and contain elements of high cultural value. Explain that local wisdom is the local knowledge that a community uses to survive in an environment of integrated belief systems, norms and cultures, expressed in long-held traditions and myths. . Local knowledge is a product of past cultures and should be used continuously as a guide for life. Local knowledge is part of community life that has been passed down from generation to generation. Local wisdom is part of a community for survival according to environmental conditions, following needs and beliefs that are ingrained and difficult to remove[13]–[16].

On this occasion, the researchers specifically discussed the local wisdom surrounding the place where this research was conducted, namely 10 Sigaol Simbolon State Elementary School in Samosir area. Many local wisdoms of the Samosir region can be practically combined and used as thematic materials to offer to students.

## **2. Method**

This research is development research (Development Research). In the development method there are several types of models. The development model used is the borg and gell model development approach. Location This research was conducted at the Elementary School in Palipi District, Samosir Regency. The research subjects were teachers and 30 students at the elementary school in Palipi District, Samosir Regency. Analysis of the data used using the N-gain score to see the comparison of learning outcomes.

### **3. Finding and Discussion**

#### **3.1 Finding**

##### Product Feasibility Test

###### a. Learning Material Expert Validation Results Data

Overall, the results of the expert evaluation of the learning materials show that the attainment of the content feasibility and presentation feasibility rating points is 75, and the attainment points of the "good" rating range from 70 to was. 84". The results of environmental material assessments where students live near developed dormitories have been commented on several times, including:(a) each document was shown to KD, (b) an illustration of the document was presented visually, (c) the out-of-region case was suboptimal, (d) the glossary of the document did not yet exist, ( e) Student engagement still exists in the form of exercises and it is proposed to improve them according to the results of the discussion. The conclusion from the expert evaluations, comments, and suggestions of the learning materials is that thematic materials based on local wisdom values deserve revision and real-world testing.

###### b. Learning Design Expert Validation Results Data

Learning layout professionals who cowl factors of splendor of bodily appearance, accuracy of layout use, conformity of format, presentation with goal characteristics, readability of media instructions, readability of fabric exposure, and suitability of assessment with the fabric as an entire may be concluded that the extent of rating fulfillment is 85.forty one wherein the variety is at the extent of fulfillment a rating of 85-a hundred is classified as "Very Good".

The outcomes of the evaluation of gaining knowledge of layout at the improvement of thematic coaching substances primarily based totally on neighborhood awareness values acquired numerous feedback, including: (a) the media need to be made according with gaining knowledge of strategies/methods/models, (b) every assembly need to show KI, KD, signs and gaining knowledge of objectives, (c) gaining knowledge of layout consists of initial, core, and last activities, (d) on the quit of the coaching substances a word list need to be made, and the concept is to revise the coaching substances in step with the feedback. The end from the evaluation, feedback and tips with the aid of using gaining knowledge of layout professionals is that thematic coaching substances primarily based totally on neighborhood awareness values need to be examined withinside the subject with revisions

###### c. Linguistic Expert Validation Result Data

Overall, the results of the Language Design Professional's evaluation of the word use and language use aspects of the production of teaching materials allow us to conclude that the Language Professional 1 Grade performance level is 77.77. . The second linguist has a proficiency level of 90.38, which ranges from 85 to 100 with a score proficiency level classified as "good", which is "very good".

After Linguist 1 evaluated the content of thematic materials based on the local wisdom score, several comments were received, including:

(a) The language used is good and the presentation is appropriate for the student's level. (b) the type of characters in the material; Please fix this as the font used is not attractive. (c) use realistic and appropriate images; (d) Adjust punctuation. We also suggest that the data from the results of the Language Expert exam be used as a basis for revisions to improve the teaching materials before testing them on students as users of the developed product. Conclusions from evaluations of linguists, opinions and suggestions that thematic materials based on the value of local wisdom are worth testing in the field, and results of evaluation of materials for the development of thematic materials by linguists. We received several comments about the value of wisdom, including:

(a) use a space in the word "school"; (b) put a period in each sentence; and (c) correct each word that requires the first sentence to be capitalized. (d) use language that students can easily understand; The conclusion from the linguists' reviews, comments, and suggestions is that thematic materials based on local wisdom values deserve revision and real-world testing.

### **Product Effectiveness Test**

#### **a. Limited Trial**

This limited experiment was conducted in Class IV-A of 22 Sigol Marbun State Elementary Schools. The class consisted of her six students, two high performers, two intermediate performers, and two low performers. Limited, to find shortcomings, weaknesses, and contributions in the form of criticisms and suggestions to the presentation of thematic materials based on the values of local wisdom used in learning, including media presentations and context-based interactive aspects. an attempt was made. Media content about where I live.

The total evaluation and limited trial response results for the development of thematic materials based on the value of local wisdom was 90.42%. Responses to the limited research, therefore, overwhelmingly responded very well to the quality of topical materials based on local wisdom values.

Analysis of limited experimental data (including aspects of media presentation and contextual interactive media content on topics in my neighborhood) is rated 90.42% overall in the "very good" category. Good for learning. The display is tailored to the student. The choice of colors and the design of the learning media are very interesting. By providing real pictures, it would be good if all subjects used these media for reference learning.

As a result of evaluating and answering the theme-specific teaching materials based on the local wisdom value in a limited trial by 6 students, the developed product was feasible, and suggestions for improvement were made by using a language suitable for the students. of the limited trial version of the product. In order to develop thematic teaching materials based on the values of local wisdom, we will continue limited trials while making modifications to our development activities.

Individualized learning completion data obtained based on student ability showed that 2 of the 6 students were 'not completed' and 4 were 'completed'. increase.

#### **b. Extensive Trial**

This extensive experiment was conducted in class IV-A of 9 Sigor Mabun State Primary Schools, consisting of 30 students. Extensive experiments were conducted with the aim of

finding shortcomings, weaknesses and contributions in the form of criticisms and suggestions for the presentation of thematic educational products based on local wisdom values. i stay

Based on the observations, it can be concluded that the evaluation and response results for the large-scale thematic educational material development experiment based on local wisdom values are 92% in total. Responses to the limited research, therefore, overwhelmingly responded very well to the quality of topical materials based on local wisdom values.

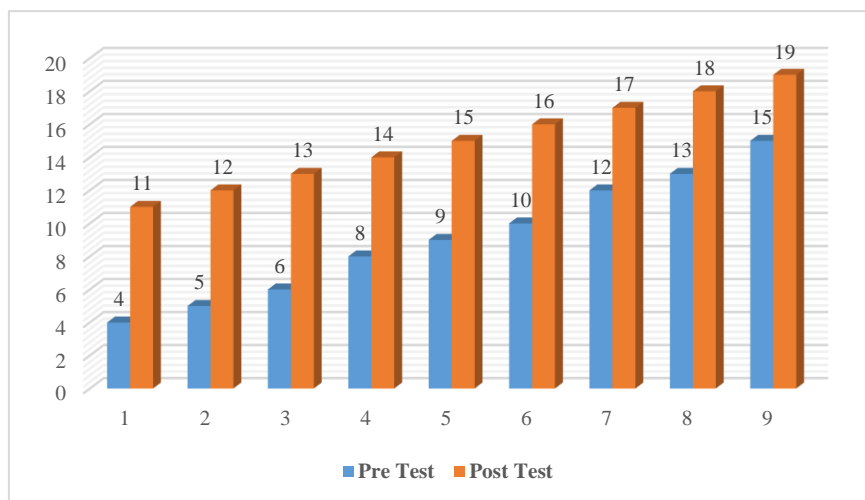
The results of the assessment and the response of the wide trial to the development of thematic teaching materials based on local wisdom values obtained as a whole are 92%. Thus the response to the dominant broad trial gave a very good response to the quality of thematic teaching materials based on local wisdom values.

The analysis of limited trial data which includes aspects of media display and contextual-based interactive media content on the theme of the area where I live, overall, 92% are included in the "Very Good" category. used as learning, the display is in accordance with the students who use it, the selection of colors and the layout of the learning media is quite interesting, by providing real pictures, it would be nice if all subjects used this media as a reference in learning.

The results of the assessment and responses to thematic teaching materials based on local wisdom values in a limited trial conducted by 30 students, indicate that the product developed is feasible to use and there is a suggestion for improvement by using appropriate language for students in a limited trial of product development of thematic teaching materials based on local wisdom values, so that development activities are continued in limited trials with revisions. We can see that out of the 20 questions given, the average student answered 17 questions with a score of 85. From this, we can conclude that large studies have improved the average learning outcomes of students. From the data of individual learning completion according to the student's academic achievement, we know that she has 3 students who are "incomplete" and 27 students who are "completed".

**Table 1.** Large group study completion table

Pre test			Pos test			Description
X	F	X*F	X	F	X*F	
4	7	28	11	1	11	BT
5	3	15	12	1	12	BT
6	3	18	13	1	13	BT
8	3	24	14	1	14	T
9	3	27	15	2	30	T
10	1	10	16	1	16	T
12	3	36	17	4	68	T
13	6	78	18	16	288	T
15	1	15	19	3	57	T
<b>Sum</b>		<b>251</b>	<b>Sum</b>		<b>509</b>	
<b>Average</b>		<b>8,4</b>	<b>Average</b>		<b>17</b>	
<b>Standar Deviasi</b>		<b>3,8</b>	<b>Standar Deviasi</b>		<b>2,7</b>	



**Fig. 1.** Large group study completion diagram

### 3.2 Discussion

The validity carried out in the validity check stage is theoretical validity, i.e. validity by a competent expert in the field, based on theoretical and logical reasoning. The material examines his three parts: material, design and language. The materials developed should be feasibility-tested so that they are suitable for use in learning. In the validation phase, researchers use a discussion technique to conduct evaluations by presenting design experts, teaching material experts, and linguists with initial designs of thematic teaching materials based on the value of local wisdom. I did. In addition, researchers provide validation sheets to validators to obtain theoretical validation results. Experts scored according to validation sheets provided by researchers.

Based on material expert validation, we know the validation score is 84.09%, which is consistent with valid criteria, but there is still room for material expert improvement. Material experts suggest correcting simple words so that students can understand them. After correcting the percentage to her 92.11% efficacy with highly valid criteria. Validator also recommends using materials that are appropriate for the local culture. After discussions with material experts, thematic materials based on the values of local wisdom are created based on the inputs and suggestions of the reviewers.

It received a 78.57% rating in the Good category based on learning design expert validation of content, presentation, presentation language, and content aspects. The reviewers suggested making the covers of the teaching materials used clearer and increasing the size of the images so that all students could see them clearly. After revision, it is suitable for student use.

Also, a feasibility study of thematic teaching materials based on local wisdom values yielded 81.67 percentage results in a limited test and 88.42 percentage results in a large-scale experiment with 25 people in the very good and very good categories. achieved results. It has

been commercialized and the final percentage is 82%. This was due to the positive and enjoyable student overall response when testing the product's feasibility, and the teacher's evaluation of the product development of the local knowledge-based material on the second trial. Consistent with what it describes as being suitable. out.

The effectiveness of the material is measured using pre- and post-test results at the beginning of learning and at the end of the learning activities conducted. Based on pretest results equivalent to 20 essay questions for her 25 students in the student pretest data, student learning outcomes remain low, with an average of 71 and a standard deviation of 13.7. It's a point. This is consistent with the description that materials can support the learning process and enhance student success.

At the end of the learning activity, a post-test was conducted to check the learning outcomes of the students using thematic materials based on the values of local wisdom. Based on the results of the administered post-tests, we can see that the students' post-test scores averaged 71 with a standard deviation of 13.7. Starting with the minimum completion standards for PPKn subjects, we can see that learning outcomes are improving, and we can say that the student's learning outcomes meet the minimum completion standards. Based on the results of students' extensive test completion, we can see that the average classical learning proficiency data reached her 90 students and achieved KB 96%. After analyzing the student's personal and classical learning proficiency, the pre-test and post-test results are calculated as win points, indicating the increased effectiveness of the model before and after use. 0.73 gives the student a higher winning score. Based on the results above, there is an increase before and after use, consistent with what was reported in the journal. In addition to learning outcomes, the effectiveness of teaching materials can also be measured through a survey of students who used the teaching materials, 73.3% of students who strongly agree, and students who agree with research-developed teaching materials. Based on student responses, it was concluded that the developed module was effective. Based on the diary, we can see the enthusiasm of the children from the data of the student response questionnaire [9].

Based on the above learning outcomes and students' responses, it can be said that the thematic teaching materials developed based on the values of local wisdom are effective[5]. It is designated as high quality because it meets the quality criteria of perfection, i.e. the effectiveness and feasibility of thematic materials based on the value of local wisdom. In addition, based on the researchers' previous research and the research of previous researchers, it can be said that it is necessary to change the learning design. It can support the learning process and help students become more active in the learning process.

#### **4. Conclusion**

The conclusions of this study are based on research data findings, and the systematic presentation takes into account the formulated research goals. Conclusions based on validity results include 75% materials experts, 85.41% design experts, and 90.38% language experts. Thematic materials based on local wisdom values are classified as practical because of the increased coefficients derived from student responses from limited and large-scale trials.



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