

# Thematic learning module technology based on local wisdom

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**Abstract.** The purpose of this research is to produce thematic learning modules for class V SD based on local wisdom for the introduction of the Sedan Rembang culture which has validity and effectiveness. The research steps are as follows: research and information gathering, research planning, initial product development, initial product testing, revision of trial results, validation testing, final product revision, and implementation. The analysis used in this research is quantitative and qualitative analysis including learning observation and validation of teaching material products. Sources of data in this study were teachers and grade V students in Sedan District. The content section of the module consists of quotes for basic competencies, learning objectives, learning concepts, and practice exercises. The results of the teacher's response, the average result was 3.73 with a total score of 470 in the very good category. For the results of student responses obtained an average result of 3.92 with a total score of 752 in the very good category. Based on the results of the validation and reinforced by the responses of teachers and students, the thematic learning module for class V SD based on local wisdom is declared feasible to be used in the learning process.

## 1. Introduction

Education is a very important need in improving the quality of human resources. One of the components of the education system is the curriculum. Learning in the 2013 curriculum uses an integrated thematic model, a scientific approach, and authentic assessment. Socio-cultural elements cannot be separated in designing learning in schools. Advice on local advantages should be dug deeper and utilized for the learning process, in addition to understanding material, the insertion of local advantages in the learning process is also able to help raise the next generation against the love for the motherland [1]. Arend in Ngurah [2] explains that this thematic model is implemented in low grades because the learning patterns and thinking patterns of elementary school age children are generally still based on concrete things. Teaching materials are used as a means of achieving learning objectives. This is also explained by Louis Alfieri, et.al (2011) who explained, "Perhaps similar reading support tools need to be developed for other texts as well so that students can come to view textbooks as helpful resources within their environments that they are able to interact with in meaningful ways to reach objectives.

Local wisdom can be used to achieve educational goals, the implementation of local wisdom values was effective to obtain learning goals and therefore, principals were supposed to be encouraged to implement local wisdom values through their leadership considering local wisdom values has advantages to obtain the education goals [3]. By using the potential in each area, learning will be

closer to the environment. Local wisdom-based education provides knowledge, skills, and attitudes to students so that they have knowledge of environmental conditions. This is in line with the opinion of Gasong (2019: 50) which states “Elementary school students are a national generation that are very suitable according to their stage of development to in still cultural values”. Contextual learning aims to motivate in understanding the meaning of the subject matter being learned by linking the material with the context of everyday life in the neighborhood (Majid, 2014: 179). By using teaching materials based on local wisdom, learning will be more contextual so that learning is more meaningful. Learning is a process of activities that educators can teach and students can receive subject matter taught by educators in a systematic manner and influence each other to achieve learning goals. Rusman (2012: 322) argues that learning is the implementation of curriculum in schools from a curriculum that has been designed and demands the activities and creativity of educators and students in accordance with the program that has been programmed effectively and fun. According to Miarso in Yamin (2013: 17) learning is an effort to deliberately manage a learning environment so that a person can form himself positively under certain conditions. Thematic learning is learning that connects various learning content that reflects the real world around students and within the range of abilities and development of children (Majid, 2013: 86). The improvement integrated scientific learning curriculum 2013 implementation with the purpose the student able to understand comprehenship of live problem, the integrated scientific learning should be altought sice childhood, so the student already familiar using scientific approach and they able using analytical thinking [4].

Local wisdom can be constructed as a form of intelligence that has been long developed by ethic group through a complex living experience as community [5]. Local wisdom can be created from the ability of communities to receive outside influence selectively and through the creative process gave birth to an unique creation that has not exist beforehand [6]. Local wisdom manifest in local curriculum becomes the need and necessity to respond the global challenge [7]. Local wisdom owned by Indonesia could potentially build the nation characters as well as the identity of Indonesia [8]. The local wisdom-based instructional model could improve the students’ comprehension and strengthen the students’ character during the classroom instructional activities [9]. Local culture is understood as local thought which is wise, full of wisdom, good values, rooted, and followed by many people [10]. Another example is a proverb as expressed by Ashipu (2015:5) “Proverbial language function in diverse ways oratorical, political, sermon, philosophical, humorous and language elevation. Folklore is seen as not only a source of cultural values for the development of national character, but also its potential to be developed in the direction of a creative economy so that it can provide welfare to the supporting community (Suarka, 2014: 72). The Indonesian nation is certainly rich in culture. This is in accordance with the Yeni’s opinion (2017:6) Indonesia is rich of local culture value (local wisdom) . One of it is Indonesian fairy tale. The tale is typically regarded as simple form of narrative, plot and theme aswell in good or bad value that depicts from the story. In Indonesia there are many kinds of cultural art, most of them potential to be developed to become art tourisms assets because it’s each uniques. In javanese society, performing traditional art has its unique related to local custom ceremony [11]. Education is a functional tool in achieving national transformation to integrate and connect local wisdom with global knowledge, values and skills, which will equip students to become good citizen [12]. The fabric between civic education and social development towards blending and interfacing local wisdom with global knowledge, values, and skill of the citizen of country as well as citizen of global village [13]

The local wisdom transformation is an attempt to pass on the local cultural wealth in the form of values and norms that apply in the local area [14]. That as a matter of fact, Indonesia has local wisdom values which has been legally established as the foundation of philosophy and educational praxis [15]. The scientific approach as referred to in Permendikbud Number 103 of 2014 includes five learning experiences, namely observing, questioning, trying, reasoning, and communicating. In the implementation of the 2013 Curriculum, students do not learn each subject separately, but are thematically integrated. Integrated thematic learning is a learning system that integrates components from various subjects combined in one theme. The theme chosen relates to nature and human life.

Success in learning is highly dependent on the ability of educators to plan and determine students' learning objectives through the use of teaching materials. Teachers can develop teaching materials to be more perfect in accordance with the conditions of the environment in which they teach. Schools must understand the local culture so that they can instill various kinds of local wisdom values in each individual as a local cultural heritage. One way is to introduce local tourism through a Thematic Learning Module based on local wisdom. This is because local tourism affects the educational, social, economic and cultural aspects.

Based on the results of observations made in class V SDN 2 Dadapan Sedan District on July 29, 2019, it is known that in learning, students are less motivated to know and develop the potential that exists in the nature around their place of residence. They only understand the concepts by memorizing the material in the textbook. Delivery of material is still fixed in textbooks. For this reason, educators develop teaching materials that are in accordance with the conditions found in the field and are able to raise local wisdom so that students can recognize and understand local wisdom that exists in Rembang Regency, especially the environment around where students live.

## 2. Research Methods

This research used a research and development design with ten steps of implementation referring to the theory of Borg and Gall. The 10 steps in the research are (1) research and information gathering, (2) research planning, (3) initial product development, (4) initial testing, (5) product revision in the form of learning modules, (6) small group trials, (7) revision of test results (8) validation test (9) revision of expert products (10) dissemination. The data collection techniques conducted by researchers were using, interview, observation, and questionnaires. The validation analysis uses a type rating scale with the following steps.

- The validator gives a score on the statement items. The answer scores include the following categories: (4) very good, (3) good, (2) sufficient, (1) less.
- The total score for each validator is added up on all indicators.
- Looking for the results of the validity value using the formula:

$$p = (\sum f \times 100\%) / n$$

Information:

P: Final grade

F: Obtained score

n: Maximum Score

The results obtained are interpreted by the following criteria in table 1.

**Table 1.** Criteria for the Validity of the Assessment Tool

NO	Value	Category
1	81-100%	Very good
2	61-80%	Good
3	41-60%	Enough
4	21-40%	Less
5	<21%	Very little

(Source: Arikunto (2010: 35))

A media developed will be said to be suitable for use as a medium in learning if the percentage obtained from the validation process is more than 61%. A module is able to support the learning process this is designed to encourage the students to learn independently [16]. The feasibility of a thematic learning module based on local wisdom of Sedan Rembang is strengthened by the results of questionnaire responses from teachers and students.

## 3. Result and Discussion

### 3.1 Research Result

The results of this thematic learning module research include the need for Thematic Learning Modules Based on Local Wisdom to Increase the knowledge of Grade V Elementary School students and the Effectiveness of Thematic Learning Modules Based on Local Wisdom in Thematic Learning for Class V SD in Rembang Regency.

*3.1.1 The Need for Thematic Learning Modules Based on Local Wisdom to Improve the knowledge of grade V Elementary School students.* Before developing a thematic learning module, an analysis of the need for thematic teaching materials for grade V SD in Rembang was conducted first. The analysis of the needs for teaching materials was carried out by means of a process of observing and interviewing students from SD Negeri 1 Dadapan, SD Negeri 2 Dadapan and 41 teachers in the Mayangkara 2 cluster, Sedan District. The observation activity was carried out on June 19, 2019 and was attended by 33 students consisting of 14 male students and 19 female students. The interview was carried out on 17-19 June 2019. The data on the results of the research on teaching material needs is in the attachment.

*3.1.2 Results of Observations and Interviews with Students.* After observing the students' needs for the learning module, the results of the observations obtained different scores. The average score on the aspect of enthusiastic attitude of students in participating in thematic learning is 2.21 with a sufficient category. Thus, this shows that a stimulus is needed so that the education participants become more active and enthusiastic in participating in learning activities. In the aspect of curiosity of students towards the thematic learning module based on local wisdom made by the teacher, an average score of 2.33 was obtained with the sufficient category. This shows that students want to get information about local wisdom that exists in their neighborhood. In the aspect of student interest at the time of learning using thematic learning modules based on local wisdom. From the research results obtained an average value of 2.39 in the sufficient category. Thus, this shows that students have a high interest in using thematic learning modules so that a stimulus is needed to learn about local wisdom that exists in the area around the residence. In the aspect of using thematic learning modules based on local wisdom, an average value of 2.57 was obtained. This shows that the interest of students is very high so it takes enthusiasm and motivation of students in the learning process.

Based on the average data obtained, namely 2.375, it can be concluded that the results of the value are less than 3 in the sufficient category. Overall, from the results of observations during thematic learning in class, students cannot actively participate in learning because the material they learn is new and has never been known to students. The results of these observations were also strengthened by interviews with students. The interviews conducted included aspects of the need for books used by students in thematic learning. In the aspect of material and content needs, students rarely get material that is in accordance with local wisdom of Rembang Regency, especially in the area where they live, namely in Dadapan Village. This is because the material in the thematic book does not include the local culture of Rembang district so that grade V students do not know and understand Rembang culture, especially about folklore and tourist attractions in Dadapan Village. In terms of using words or language, writing is required that is clear, easy to understand, and accompanied by the use of attractive images. Interview data can be seen in the appendix.

*3.1.3 The Effectiveness of Thematic Learning Modules Based on Local Wisdom in Class V Thematic Learning in SD in Rembang Regency.* The feasibility of a thematic learning module based on local wisdom in Sedan Rembang is strengthened by the results of the questionnaire responses from teachers and students. The following is an explanation of the results of the questionnaire responses of teachers and students.

*3.1.3.1 Results of Teacher's Response Questionnaire.* Teacher response questionnaires were given to class teachers teaching in SD in Mayangkara 2 Cluster Sedan District, Rembang Regency, namely class teachers at SDN 1 Dadapan, SDN 2 Dadapan, SDN Sambong, SDN Kumbo, and SDN

Lemahputih. a questionnaire taken in the era of the coVid-19 pandemic. The results of the questionnaire responses of class V SD group Mayangkara 2 Elementary School, Sedan District, Rembang Regency obtained a total score of 470 with an average of 3.73 with a percentage of 93% and very good category. In the introductory part of the teaching materials, namely statement items number 1 to 4 which include learning instructions and competencies that must be achieved obtaining an average score of 3.9 and 4. This means that the module is easy to use by the teacher because the learning instructions are clear, and there is a match between core competencies, basic competencies, indicators and learning objectives as well as the material described in learning.

At the core of the thematic learning module which includes the content of the material and exercises obtains an average score of 3.4 to 4. This shows that this module describes the characteristics of thematic learning that is holistic, active, authentic, meaningful, and uses language in accordance with level of cognitive and emotional development of learners. For suggestions and input from the teacher, this module should be well developed, interesting, innovative, and suitable for integrated thematic learning for class V in Rembang Regency.

*3.1.3.2 Results of the Student Response Questionnaire.* Student questionnaire responses were given to students in 5 schools in the Mayangkara 2 cluster, Sedan District, Rembang Regency. Each school was represented by 3 students in grade 5. Responses were made through filling out a questionnaire. The questionnaire was made in the form of a google form because it was spread during the Covid-19 pandemic.

### *3.2 Discussion*

*3.2.1 Needs Analysis for Thematic Learning Module Based on Local Wisdom.* Based on the research results, it has been found that thematic learning requires a thematic learning module that is contextual and originates from the local culture. Culture as a result of creativity, taste, and creation society actualize environment. And values which contain in the culture is something that is very valuable to the owner of cultures [17]. Many students are not familiar with the local culture of Sedan Rembang, especially about Dadapan Village because there is no thematic learning module that links the material with the Sedan Rembang culture. By developing thematic learning modules based on local wisdom, it is hoped that students will know more about the local culture of the Sedan Rembang area because they learn contextually. Thematic learning modules that are contextual are very important to help students achieve learning goals.

*3.2.2 The Effectiveness of Thematic Learning Modules Based on Local Wisdom in Thematic Learning of Class V SD in Rembang Regency.* The results of the effectiveness test of the thematic learning module for class V SD based on local wisdom of Sedan Rembang were carried out using a questionnaire. Distribution of questionnaires is given to students. class V of the Mayangkara 2 cluster in Sedan sub-district, each represented by 4 students. The results obtained from the questionnaire, namely from 20 students, there were 14 students, namely 70% responded very well, while 6 students or 30% responded well to this learning module. This shows that the thematic learning module for class V SD based on local wisdom is effectively used to increase the knowledge of students about local wisdom.

## **4. Conclusion**

From the research that has been done, the conclusions that can be obtained are:

- Thematic learning for fifth grade elementary school students in Sedan Rembang sub-district requires a learning module to introduce the Sedan Rembang culture, especially the culture of Dadapan Village, so the researchers developed a thematic learning module for Class V SD based on local traditions.
- The effectiveness test is carried out with a questionnaire of students' responses and interests to the thematic learning module. From the questionnaires that have been distributed, it was obtained data that as many as 70% of students responded very well to this thematic learning module, and as many

as 30% of students responded well to the thematic learning module. So it can be concluded that the thematic learning module for class V SD based on local wisdom is effectively used to increase the knowledge of students about local wisdom.

## 5. References

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