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Development of Social Studies Teaching Materials Based on LocalWisdom of Grade VI Primary School Students in Jekulo, Kudus Regency

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Abstract: This study aims to: (1) describe social studies learning based on local wisdom to improve the scientific thinking ability of elementary school students, (2) formulate the development of social studies learning designs based on local wisdom to improve the scientific thinking skills of elementary school, (3) analyze the effectiveness of social studies learning based on local wisdom to improve the scientific thinking skills of elementary school students. This research is development research using the Borg & Gall model. The development steps include: 1) analyzing the needs in elementary schools; 2) develop a preliminary design; 3) validation and revision; 4) limited trials; 5) extensive trials; 6) dissemination. The trial was conducted on 36 teachers at SD 1 and 2 Sadang as experimental classes and 36 teachers, and 36 teachers at SD 3 and 4 Sadang as control classes. Data were collected by observation, questionnaires, tests, interviews. The validation result data is analyzed by accumulating the number of scores. Data on the effectiveness of the local wisdom-based Personality Competency model were analyzed by gain test, t test at a significance level of 0.05. The results of the study showed a significant increase in learning outcomes, namely in the control group, as many as 53.1% had an increasein moderate learning outcomes and 46.9% in the lowcategory. In the experimental group, 58.1% had a moderate increase in learning outcomes and 41.9% were high; (2) Learning outcomes achieve completeness, namely due diligence results for the experimental group of 5.97 with a significance valueof 0.000 < 0.05, which means that the average learning outcome of 80.58 markedly exceeds 69 or has reached learning completeness, while in the control group of -0.781 with a significance of 0.441 > 0.05, which means that in the control group has not reached completeness. The completeness of students'classical learning in the experimental class was 87.1% and in the control, class was 59.4%. The conclusion obtained is that the personality competency design model based on local wisdom improves the performance of elementary school teachers. It is recommended that teachers use a personality competency design model based on local wisdom because it is able to improve the performance of elementary school teachers.

Keywords: Social Studies, Teaching Materials, Local Wisdom

1. Introduction

Today the development of science and technology has a great impact onhuman resources to develop and improve human quality to be able to play a role in global competition. This is used by the world of education to improve the quality of education. The rapid development of science and technology, producing quality human resources. Well-prepared human resources willcreate humans who have resilience in thinking, behaving and acting.

Social Sciences (IPS) is a subject at the school level, which is developed in an integrated manner by taking essential concepts from social sciences related to how to prepare students to become good citizens. Social studies examine various social problems and phenomena that exist in society. Somantri (2019: 44) explained that the purpose of social studies education in schools is to foster civic, moral, state ideology, and religious values so that in the future it will be a provision for community life. Aligning social studies goals in learning must weigh the material or tools used. Teaching materials that can help stimulate scientific thinking skills are teaching materials that make students challenged so that students use their thinking skills to solve problems. Social studies teaching materials that support learning are needed in aligning the goals of social studies education.

The problem solving discovered by the student himself is moremeaningful than the information told. Children must play an active role whenlearning in class. The concept is learning by finding (discovery learning)students combine

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the learning material with a final form that is in accordance with the child's level of thinking progress. Education is essentially a process of personal discovery, by each individual student (Brunner in Suyono, 2019: 88). An approach to learning is needed to make students more active and learning becomes more enjoyable. Based on local wisdom in the Ministry of Education and Culture (2016: 18) is a learning that adopts scientific steps in building student knowledge through scientific methods in the process. Activities based on local wisdom are carried out by adopting scientific steps in building student knowledge through scientific methods in the implementation process. In learning based on local wisdom, learning activities are carried out through a series of processes, namely observing, questioning, trying, associating, and communicating. Scientific thinking and carrying out scientific activities, aimed at obtaining correct knowledge or scientific knowledge. To achieve goals, humans clearly need the means or tools of scientific thinking. This means is certain, so that scientific activities or activities will not be optimal without scientific thinking tools.

Based on the results of observations and information made by the author, namely on Wednesday, January 8, 2023, in social studies learning at SD Negeri 1 Sadang, the problems that occur in the learning process are related to students' scientific thinking skills in the new learning process limited to receiving material from the teacher's delivery, not yet exploring students' scientific thinking skills. At the time of learning, students use social studies textbook teaching materials in schools, but the teaching materials used have not optimally developed students' scientific thinking skills. This can be seen from every time the teacher explains during learning only 35% of students are active while other students only remain silent as listeners and take notes.

Teaching materials based on local wisdom are teaching materials in which they explore the abilities of students, namely the development of abilities, attitudes, skills and knowledge. Teaching materials relate the material learned to the environment as a source of learning and make learning meaningful. The teaching materials developed in this study are in the form of student textbooks. Textbooks are used to provide understanding and explore students' abilities towards social studies knowledge. Learning by directly relating the environment around students in the delivery of the material learned will be more meaningful and train students to interact well in the surrounding environment. Based on the scope of the problem and research focus, it is formulated: (1) How is local wisdom-based learning for elementary school students (2) How is the development of local wisdom-based learning design, (30) How is the effectiveness of local wisdom-based learning to improve the scientific thinking skills of elementary school students in Jekulo District, Kudus Regency?

According to the National Center for Competency Based Training in Prastowo (2015: 16) teaching materials are a form of material used to assist teachers in the learning process in the classroom. The material in question can include written or unwritten materials Meanwhile, according to Lestari (2013: 1) teaching materials are a set of learning tools consisting of several contents, namely learning materials, learning methods and how to evaluate which are designed systematically and interestingly to achieve the expected learning objectives in accordance with basic competencies and achievement indicators.

According to Al-lamri (2016: 84) social knowledge with substantial material coverage as explained from the basic presentation to its maturation then is a subject area that demands multi ways and strategies, multi methods and media, multi approaches, and target expectations in the framework of achieving goals. Meanwhile, according to Hidayati (2018: 3) social studies is an interdisciplinary approach to social science lessons. Social studies are an integration of various branches of social sciences, such as sociology, cultural anthropology, social psychology, history, geography, economics, political science, and so on.

Social studies education learning emphasizes more on educational aspects than concept transfer because in social studies learning students are expected to gain an understanding of a number of concepts and develop and train their attitudes, values, morals, and skills based on the concepts they already have (Solihatin, 2018: 15).

Based on content standards, the scope of social studies subjects in elementary schools includes the following aspects (BNSP, 2016: 175); (1) people, place, and environment, (2) time, sustainability and change, (3) social and cultural systems, (4) economic behavior and well-being.

The structure of teaching materials developed in this study is printed teaching materials in the form of books, namely student textbooks. Student textbooks that use environment-based scientific measures. The book in which has a teaching structure, namely title, KD / MP, supporting information, exercises and assessments.

Local wisdom-based learning according to Hosnan (2019: 34) is a learning process designed in such a way that learners actively construct concepts, laws or principles through the stages of observing (to identify or find problems), formulate problems, propose or formulate hypotheses, collect data with various techniques, analyze data, draw conclusions and communicate concepts, laws and principles found. Based on local wisdom is intended to provide understanding to students to get to know, understand various materials using a scientific approach, that information can come from anywhere, anytime, not depending on unidirectional information from the teacher. Therefore, the expected learning conditions are directed to encourage learners to find out from various sources through observation, and not just being told.

Utaminingsih, et al (2019: 48) suggest that choosing the right learning model and approach can stimulate students' enthusiasm for learning. The accuracy of model and media selection greatly affects student learning activities. Nurhadi, et al (2019: 6) stated in their research that the models and approaches based on local wisdom used by teachers in learning greatly affect student activities and learning outcomes.

Based on the description above, based on local wisdom is a learning process that is designed in such a way that

students actively construct conceptswith structured stages to encourage students to find out from various sourcesthrough observation, and not just being told.

Social studies learning at school is expected to be a vehicle for studentsto teach themselves and the environment. Social studies education directs students to find out and do, so that it can help students to gain a deeper understanding of the surrounding situation. Learning will be more fun and concrete when connected with real daily experiences or learning that includes the environment as a learning resource. Learning from the surrounding environment is very necessary in social studies learning because harmony with the environment needs to be fostered and maintained as knowledge. Interacting positively with the environment needs to be done as early as possible and with students. Knowledge of the environment is strengthened bylearning and interacting with the environment.

Based on the description above, it can be concluded that learning thatutilizes the surrounding environment as a source and place of learning can provide direct experience to students, innovative and socio-psychologicalatmosphere in a relaxed atmosphere but still directed in accordance with learning objectives. The surrounding environment has a very large understanding not only limited to the natural environment but can be in the form of social environment and region / place.

The application of teaching materials based on local wisdom providessystematic and logical thinking experience in solving problems. A literature review of relevant research research is carried out as follows.

Research conducted by Nurhadi (2019) with the research title Developing Theme Based Learning Through Powerspring HTML 5 of Android to Deradicalize the Attitude of Primary School Students. The results achieved that learning devices, namely teaching materials developed are designed usingandroid which has its own meaning and is closely related to improving students' ability to think critically. The form of learning is implemented through a contextual approach that connects the content of academic subjects with the context of everyday life to find meaning and methods that prioritize student involvement to be active in learning. Analysis of the research data above is of relevance to the development of teaching materials together to improve students' ability to think critically in social studies learning in elementary schools.

Penelitian Miati (2019) *Pengembangan Perangkat Pembelajaran IPS dengan Model STAID berbasis kearifan lokal untuk meningkatkan kemampuan berpikir kritis siswa kelas II SD I Bulungkulon.* Hasil penelitian bahwa perangkat pembelajaran yaitu mengenai bahan ajar IPS dengan model STAD dengan berbasis kearifan lokal menekankan pada pembelajaran yang bersumber dari lingkungan sekitar siswa dengan pembelajaran berbasis kearifan lokal. Perangkat efektif digunakan dengan uji n-gain 0,44 dan persentase ketuntasanklasikal >80%. Perangkat pembelajaran IPS dengan pendekatan berbasis saintifik lebih baik dari siswa yang mengikuti pembelajaran konvensional danpenguasaan terhadap konsep IPS siswa yang mengikuti pembelajaran dengan pendekatan berbasis lingkungan lebih baik dari siswa yang mengikuti pembelajaran konvensional. Analisis hasil penelitian di atas relevan dengan penelitian yang dilakukan yaitu mengenai bahan ajar yang dikembangkan tentang lingkungan sekitar yang dimasukkan dalam pembelajaran IPS.

Research, Miati (2019) Development of Social Studies Learning Tools with STAID Model based on local wisdom to improve critical thinking skills ofgrade II students of SD I Bulungkulon. The results of the study that learning tools are about social studies teaching materials with the STAD model based on local wisdom, emphasizing learning sourced from the environment aroundstudents with learning based on local wisdom. The device is effectively used with an n-gain test of 0.44 and a classical completeness percentage of >80%. Social studies learning tools with a scientifically-based approach are better than students who follow conventional learning and mastery of social studiesconcepts students who follow learning with an environment-based approach are better than students who follow conventional learning. The analysis of theresults of this study is relevant to the research conducted, namely improving scientific thinking skills in social studies learning. Development of scientific thinking skills through the stages of scientists.

Nagl, M.G., Obadovic, &; Segedinac, M., (2012) entitled EffectiveTeaching of Physics and Scientific Method. The results showed that scientific grammar lessons were efficiently used increased and schools fulfilled their mission of preparing students for further education, application of knowledgein the world of work or in everyday problem situations using a scientific approach. The analysis of the results of the above research is relevant to the research conducted, namely in the use of local wisdom-based learning relatedto everyday life.

Peter Heering, et al (2023) entitled Enabling Scientific Understanding Through Historical Instruments and Experiments in Formal and Non-formal Learning Environments. Flensburg Studies in the History and Philosophy of Science in Science Education. The results showed that scientific thinking on thisresearch improves students' abilities in the field of experiments on historical writing, records of events in history, museum science. Analysis of relevant research results Research conducted in the scientific thinking process improvesstudents' abilities.

Based on the theoretical basis of the research hypothesis that the development of social studies teaching materials based on local wisdom for grade 6 elementary school students has proven effective in improving scientificthinking skills for elementary school students in Jekulo District, Kudus Regency.

2. Method

This research model is R & D (Research and Development) research using mix methods (qualitative and quantitative) and development usingFour-D modification from Thiagarajan. Qualitative contains data on the initialcondition of students before research is carried out (define), using data triangulation. Quantitative in this study is in the form of validity of

teaching materials, testing questions and testing the effectiveness of teaching materials.Research is carried out to develop existing products or create new products bytesting the effectiveness of the products produced.

The development of this teaching material refers to the Four-D Models proposed by Thiagarajan, Sammel, and Semmel (1974: 6-11) consisting of 4 stages, namely define, design, development and disseminate. The disseminate stage is not carried out because of time and implementation considerations andconsiderations that at the development stage teaching material products have been produced. The design stage aims to design teaching materials so that socialstudies textbooks based on local wisdom are obtained. The develop phase aimsto produce teaching materials that have been revised and validated by experts,limited trials, extensive trials and draft assessments.

The population and study sample consisted of control classes andexperiments. The control class was grading VI students of SD Negeri 1, and 2Sadang with a total of 31 students and the subjects of the experimental classwere grade VI students of SD Negeri 3 and 4 Sadang with a total of 32 students.The fill-in test is used to determine the level of readability of the text of teaching materials so that information is obtained that teaching materials basedon local wisdom based on the Gusjigang environment are easy to understandor not understand. The fill-in test instrument consists of 15 questions givenduring the trial. Observations are made to obtain data about the activities carried out by students during learning. The instrument used is an observationsheet of scientific thinking skills. Questionnaires are used to find out: 1) studentneeds, 2) expert and practitioner validation tests. The instruments used are: 1)student requirement sheets, 2) assessments for product validation tests.

Documentation is used to obtain data regarding student names and grade lists. Documentation to find out the initial conditions of the study. The grade data used is even semester final test score data and report card scores.

Validation sheets from media experts are used to validate the initial product draft from the media side that has been made so that it is feasible to betested. The validation sheet contains the cover design, content design, and presentation of the learning. Validation is very decisive for whether or not a teaching material is feasible or not to be used.

Measurement of question validity using SPSS program version 16.0 version forWindows. Valid questions mean that items can be used to measurestudent ability and invalid questions are discarded.

Reliability is calculated to determine the determination of the results ofa test, if the results change then the changes that occur are said to be meaningless. Reliability measurement of problems using the SPSS program version 24.0 for Windows attached calculations.

The results of the analysis of pretest and posttest test questions in the class are limited to 40 multiple-choice questions and 15 description questions.From the results of the trial in the limited class, the reliability of the multiple-choice question items were analyzed which obtained a test reliability coefficientof 0.835 and the description question items which obtained a reliability coefficient of 0.752, which means that the reliability coefficient is high becauseof high reliability if it is $0.70 < r11 < 0.90$. This indicates that the instrument is reliable. The full calculation can be seen in the appendix.

3. Findings and Discussion

The preliminary study phase (observation, April 20, 2023) was carried out in Class VI social studies learning in the 2023/2024 academic year. This is done to identify teaching materials used in learning so far and learn the fundamental problems faced in the use of teaching materials. A needs analysiswas conducted to analyze the needs of teaching materials used in SD Negeri 1Sadang. An explanation of the aspects of social studies teaching material needsincludes: (1) learning approaches, (2) competencies to be achieved, (3) teaching materials, and (4) evaluation. Based on the results of the analysis of the learning approach used so far, it has not helped the learning process optimally because it still uses conventional learning. The syllabus and lesson plans still use conventional learning steps.

Printed books used in learning have not been able to explore the basicabilities possessed by students, existing social studies printed books only review concepts so that students are passive. The teacher only explains the material and gives sample questions followed by practice questions independently. The assessment of learning outcomes carried out is still focused on cognitive assessment only, without a grid of questions that refer to the indicators and cognitive levels of Bloom's taxonomy.

The initial condition of social studies teaching materials, the conditionof students in social studies learning shows the initial conditions of obstacles that arise, including: 1) the absence of teaching materials that are in accordancewith the environment around students that make students active in learning, 2) low scientific thinking skills in social studies learning, and 3) low cognitive learning outcomes of students. The initial conditions are used as the basis for formulating the development goals of the developed teaching materials. This research produces teaching materials that optimize students in scientific thinking skills in social studies learning, relate learning to the environment around students, and can improve students' cognitive learning outcomes.

Teaching materials are all materials (both information, tools and texts)that are arranged systematically in accordance with the existing curriculum and contain a number of learning messages conveyed to students that are usedby teachers in the learning process for students so that learning objectives canbe achieved. The characteristics of teaching materials developed in this study are teaching materials based on local wisdom with based on the surrounding environment, by combining the stages of activities that exist based on local wisdom. The explanation of each part is as follows. On the cover there are two parts, namely the front cover and the backcover of the book. The book cover is made with a depiction

of active learning using teaching materials based on local wisdom based on the surrounding environment.

The preface section contains a brief explanation of the contents of the book and thanks, the author's expectations to the reader, and criticism of suggestions for the author. One-time learning activities consisting of several indicators are explained in the preface. In the table of contents section there is a description of the parts of thebook and the location of the page numbers. The sections of the book consist ofthe cover, preface, instructions for using the book, table of contents, opening oflearning chapters, concept maps, learning activities 1-6, material summary, competency test, bibliography and glossary.

The content of the book includes: (1) concept maps, (2) competencymapping and (3) learning material content. The parts are presented as follows.In the concept map section, there is a mapping of the points of the material studied. There is a concept map used to find out the points of thematerial. Local environmental materials are divided into understanding maps, reading and drawing maps of the local environment, scale on maps. In the competency mapping section, there are indicators and learning objectives achieved. Competency standards and basic competencies are included in learning activities. Indicators are distinguished into cognitive, affective and psychomotor.

In the content section of the learning material, there are five stages in learning according to scientific steps including: (1) observing, (2) questioning, (3) experimenting, (4) associating, (5) networking. Observing is described in let's observe activities, questioning is described in let's ask activities, experimenting is described in let's find out activities, associating is described in let's investigate, and networking is described in my work activities. The bibliography section contains references used in composing books. References come from various sources to enrich the references used in the book. The glossary section contains an alphabetical list of terms in a realm of knowledge with their definitions. The definition clarifies the meaning of alphabetical words.

Syllabus Validation Test Results

The syllabus is used as a guideline in development. The expert-validateddevelopment syllabus is used as a guideline for preparing lesson plans, teaching materials and evaluation tools. The syllabus that has been designed isthen validated first before being used in learning. The validation results of thefive validators can be seen in Table 1.

Table 1 - Recapitulation of syllabus validation results.

No	Validator	Average Score	Kategory
1.	Validator 1	3,30	Excellent
2.	Validator 2	3,46	Excellent
3.	Validator 3	3,54	Excellent
	Average	3,43	Sangat baik

Source: Processed Data (Muhtadin, 2023)

The syllabus does not use pictures in its learning steps. The syllabus afterrevision is omitted the drawings and directly at the point of the learning step.**RPP Validation and Revision Results.**

The Learning Implementation Plan (RPP) is a description of the syllabusthat has been prepared. The validation results of the five validators can be seenin Table 2.

Tabel 2 - Rekapitulasi hasil validasi rpp.

No	Validator	Average Score	Kategory
1.	Validator 1	3,44	Excellent
2.	Validator 2	3,52	Excellent
3.	Validator 3	3,40	Excellent
	Average	3,46	Excellent

Source: Processed Data (Muhtadin, 2023)

Validation Results of Teaching Materials

Teaching materials that have been designed are validated first before being used in learning. The validation results of the five validators can be seen in Table 3.

Table 3 - Recapitulation of teaching material validation results.

No	Validator	Average Score	Category
2.	Validator 2	3,36	Excellent
3.	Validator 3	3,33	Excellent
4.	Validator 4	3,36	Excellent
	Average	3,35	Excellent

Source: Processed Data (Muhtadin, 2023)

The assessment results of the five validators on the developed teachingmaterials are as in table 4.3 the average score of the five validators on teaching materials is 3.37 or included in the very good category.

Validation and Revision Results of the Evaluation Tool

Test questions that have been designed are then validated before being used to measure student ability. The validation results of the four validators can be seen in Table 4.

Table 4 - Recapitulation of evaluation tool validation results.

No	Validator	Average Score	Category
2.	Validator 2	3,75	Excellent
3.	Validator 3	3,50	Excellent
4.	Validator 4	3,25	Good
	Average	3,50	Excellent

Source: Processed Data (Muhtadin, 2023)

The assessment results of the five validators against the evaluation tooldeveloped are as in Table 4.4, the average score of the five validators againstthe evaluation tool is 3.50 or included in the very good category. Product Readability Test Social Studies Teaching Materials Based on local wisdom The readability test is carried out with a clump test used to determine the level of readability of the text of teaching materials. The readability test was conducted in a limited group of 12 students. Based on data analysis, the percentage of readability of teaching materials is obtained, the results of readability analysis can be seen in Table 5.

Table 5 - Readability test analysis results.

No	Responden Code	Total True Questions	Persentase (%)
1	UK-1	14	93,3%
2	UK-2	11	73,3%
3	UK-3	13	86,7%
4	UK-4	13	86,7%
5	UK-5	11	73,3%
6	UK-6	13	86,7%
7	UK-7	14	93,3%
8	UK-8	12	80,0%
9	UK-9	12	80,0%
10	UK-10	13	86,7%
11	UK-11	10	66,7%
12	UK-12	10	66,7%
Totality Score			146
Persentase			81,1%
Criteria			Eazy to understanding

Source: Processed Data (Muhtadin, 2023)

The results of the analysis of the clump test showed that the readings in the teaching materials obtained an average score of 81.1%, so they were included in the easy-to-understand category. This shows teaching materials based on local wisdom based on the surrounding environment in accordance with the abilities of elementary school students and can be tested on a wide scale.

Effectiveness Test

Teaching materials based on local wisdom based on the surrounding environment are developed to improve scientific thinking skills, so it is necessary to test the effectiveness of the effect of applying teaching materials on improving scientific thinking skills. Aspects observed in scientific thinking skills instruments include aspects of observing, questioning, gathering information, associating, and communicating. The scale used is the Likert scalewith a score range of 4 (very good), 3 (good), 2 (sufficient) and 1 (less). The results of observations of scientific thinking skills in Table 6.

Table 6 - Test results of the effectiveness of scientific thinking skills.

No	Skill Aspect	Research Class	
		Control	Experimen
1	Observe	3,06	3,68
2	Inquired	2,51	3,38
3	Collecting Information	2,43	3,36
4	Associate	2,32	3,32
5	Communicate	2,21	3,31
Totality		12,53	17,04
Average		2,51	3,41
Score of effectivities		62,63%	85,22%
Criteria		Good	Exellence

Source: Processed Data (Muhtadin, 2023)

The results of the acquisition of scientific thinking skills in the control class were the observing aspect of 3.06 (good), the questioning aspect of 2.51 (good), the aspect of collecting information of 2.43 (not good), the associating aspect of 2.32% (not good) and the application of communicating by 2.21% (notgood). The acquisition of the overall recapitulation of aspects of scientific thinking skills was 12.53 or reached 62.63%.

The results of scientific thinking skills in the experimental class on the observing aspect were 3.68 (very good), the questioning aspect was 3.38 (verygood), the information gathering aspect was 3.36, the associating aspect was (very good), and the communicating aspect was 3.31 (very good). The recapitulation of the sum of all aspects of scientific thinking skills was 17.04 and the effectiveness rate of experimental class scientific thinking skills reached 85.22%. An explanation of the results shown can be seen in Figure 1.

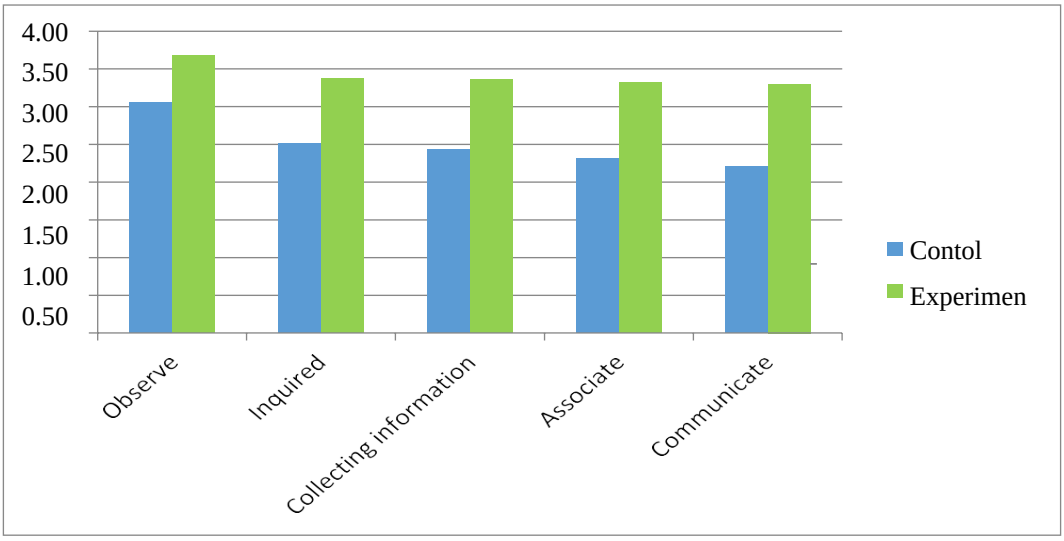

Fig. 1 - Scientific thinking skills diagram control class and experimentclass.

A recapitulation of the results of scientific thinking skills between theexperimental class and the control class can be seen in Table 7.

Table 7 - Recapitulation of results of scientific thinking skills.

Scientific Thinking Level Criteria					
Class	**Excellence**	**Good**	**Less Good**	**Not Good**	**Total**
Control	0	18	14	0	0
Experimen	24	7	0	0	0

Source: Processed Data (Muhtadin, 2023)

The results of scientific thinking skills in the experimental class were asmany as 24 students (77.42%) managed to meet the criteria very good and 4 students (22.58%) met the criteria well. These results were much more significant when compared to the control class, because in the control class only18 students (56.25%) obtained good criteria and 14 students (43.75%) obtainedpoor criteria.

The achievement results if interpreted with predetermined criteria that85% of students must acquire aspects of scientific thinking skills with good criteria, it can be concluded that experimental classes that use teaching materials based on local wisdom based on the surrounding environmentsucceed in exceeding these criteria because the average achievement of aspectsof scientific thinking skills reaches 85.21%.

Normality Test

The normality test is carried out to determine whether or not the data in the research conducted. The data normality test was carried out using Kolmogorov-smirnov with the help of SPSS. The normality test results can be seen in Table 8.

Table 8 - Data normality test results.

Data	Kolmogorov	Sig.	Kriteria
Initial conditions	0,777	0,582	Normal

Source: Processed Data (Muhtadin, 2023)

The results of the normality test using Kolmogorov Smirnov from eachdata exceeded 0.05, which means that the data are declared to be normally distributed, thus parametric statistics can be continued for further hypothesis testing.

Homogeneity Test

The homogeneity test was carried out to determine the similarity of variantsbetween the experimental group and the control group. The homogeneity test results are used as a reference for using the type of independent sample t-test with homogeneous assumptions (Equal variances assumed) or using independent sample t-tests with inhomogeneous assumptions (Equal variances not assumed). Test homogeneity using the Levene test.

Table 9 - The homogeneity test results.

Data	Varians		F	Sig.	Kriteria
	Control	Experimen			
Kondisi awal	58,26	41,63	1,563	0,216	Homogen

Source: Processed Data (Muhtadin, 2023)

Based on the results of the Levene test, a significance value of 0.216 wasobtained, while the requirement for Ho acceptance was the sig value. >0.05. Analysis of the results of the acquisition shows sig. 0.216 > 0.05 so Ho is accepted and the data has the same variance (homogeneous).

Analysis of the Effectiveness of Teaching Materials

The effectiveness of teaching materials based on local wisdom based onthe surrounding environment is measured by knowing the influence of teaching materials on learning. The effect of teaching material products is determined by

comparing data on cognitive learning outcomes test scores andobservations of students' scientific thinking skills.

Data on cognitive learning outcomes and data from observations conducted from July 27 to August 15, 2023, students' scientific thinking skills were obtained through the implementation of trials on a wide scale which werecarried out in six meetings in accordance with the learning design prepared. The results of the evaluation test are obtained through the results of test questions in the form of multiple choice and description. A recapitulation of students' cognitive learning outcomes can be seen in Table 10.

Table 10 - Recapitulation of student cognitive learning outcomes.

Information	**Experimen**	**control**
Total Students	31	32
Average Class	80,58	67,69
KKM	≤69	≤69
Minimum	58,0	50,0
naximum	94,0	80,0
Complete	27	19
Inomplete	4	13
Complete Persentase	87,1%	59,4%

Source: Processed Data (Muhtadin, 2023)

Based on Table 10, experimental group students showed a grade average of 80.58 with a completion percentage of 87.1% and students in thecontrol group showed a grade average of 67.69 with a completion percentage of 59.4%. Based on these completeness data, students in the experimental group have met the completeness indicators of student cognitive learning outcomes classically with a completeness percentage of > 85%.

To determine the difference in the average score of students' cognitivelearning outcomes in the experimental group and the control group, a comparative test was used. Data comparison tests are performed using thestatistical formula of t test with the help of SPSS software. The results of the comparative test can be seen in Table 11.

Table 11 - Comparative test of student cognitive learning outcomes data.

Group	**Average**	**T**	**sig**	**Criteria**
Experimen	80,58	5,032	0,000	Real different
Control	67,69			

Source: Processed Data (Muhtadin, 2023)

Hipotesis:

H_0: σ_1 σ_2 (There was no difference in the average score of students' cognitivelearning outcomes between the experimental class and the control class)

Ha: σ_1 σ_2 (There was difference in the average score of students' cognitive learning outcomes between the experimental class and the control class)

Based on the description of Table 11, the t-test results are obtained using *independent sample t-test* Obtained value t_{hitung} = 5,032. At the error level 0,05 Retrieved t_{tabel} =1,67 karena t_{hitung} = 5,032 > t_{tabel} = 1,67 and the value of significance 0,000 < 0,05 It can be concluded that Ha is accepted which means that there is a difference in the average learning outcome data of the two groups, where the average of the experimental group is more than the averageof the control group. Teaching materials tested in experimental groups are said to be effective if theymeet the following criteria: 1) there is a significant improvement in learning outcomes; and 2) learning outcomes achieve completeness.

Learning Outcomes Improvement Test

The test of improving learning outcomes can be seen from the testresults *paired sample t-test*, dengan hipotesis yang diuji:

Ho:test) σ_2 σ_1 (The average learning outcomes of postes do not exceed the pre

Ha: σ_2 σ_1 (Average Postes Learning Outcomes Exceed Pre-Test)

The paired sample t-test results with the help of the SPSS program can be seenin the Table 12.

Table 12 - Improved learning outcomes.

Average					
Group	**Pre test**	**Post test**	**T**	**Sig**	**Kriteria**
Experimen	52,90	80,58	26,58	0,000	Increase
Control	53,56	67,69	10,73	0,000	Increase

Source: Processed Data (Muhtadin, 2023)

Test results *paired sample t-test* for the experimental group, a value wasobtained t_{hitung} = 26,58 with significance value 0,000 < 0,05, which means that Ha accepted which means there was a significant improvement in learning outcomes in the experimental group. Test results *paired sample t-test* for the control group obtained values t_{hitung} = 10,73 with significance value 0,000 < 0,05, which means that Ha was accepted which means there was a significant improvement in the learning outcomes of the control group. To determine thequality of improved learning outcomes can be seen from normalized gain.

Test analysis N-Gain is the normalized gain of the gain *pretest* dan *postest*. Improved learning outcomes in experimental classes compared tocontrol class learning outcomes. The formula g factor used in this study is N- Gain used to distribute data acquisition according to normalized gain levels. The classification level consists of 3 levels, high category $g \geq 0,7$, medium category with gains $0,7 < g \geq 0,3$ and low category with criteria $g < 0,3$. Next, the data is compared to determine the level of acquisition between before andafter the application of the model. Recapitulation of Test results N-Gain obtained can be seen in the Table 13.

Table 13 - The result n-gain normalizations.

Interval	**Criteria**	**Control Group**		**Experiment Group**	
		f	**%**	**f**	**%**
Low	$g < 0,3$	15	46,9	0	0
Keep	$0,3 \leq g \leq 0,7$	17	53,1	18	58,1
Tall	$0,7 < g$	0	0	13	41,9
Total		32	100	31	100

Source: Processed Data (Muhtadin, 2023)

Table 13 shows that in the control group, 53.1% had moderate improvement in learning outcomes and 46.9% in the low category. In the experimental group, 58.1% had a moderate increase in learning outcomes and41.9% were high.

Due Diligence

Due diligence of learning outcomes can be seen from *one sample t-test* with 0 69 (KKM). The hypotheses tested are::

Ho : 69 g outcomes not exceeding 69 or incomplete)(average learning outcomes exceeding 69 or complete)

Ha : 69 (averag e learnin

Learning due diligence results using *one sample t-test* with the help ofSPSS can be seen in the Table 14.

Table 14 - Learning completeness results.

Average					
Group	**KKM**	**Post test**	**t**	**sig**	**Kriteria**
Experimen	69	80,58	5,97	0,000	Complete
Control	69	67,69	-0,781	0,441	incomplate

Source: Processed Data (Muhtadin, 2023)

Table 14 shows that the due diligence results for the experimental group were 5.97 with a significance value of 0.000<0.05, which means that the average learning outcome of 80.58 markedly exceeded 69 has achieved learning completeness, while in the control group it was -0.781 with a significance of 0.441 > 0.05, which means that in the control group it has not reached completeness. Due diligence includes individual completeness and classical completeness.

Discussion

This research includes research and development, the resulting productin the form of social studies teaching materials based on local wisdom based on the surrounding environment is the result of the development of existing teaching materials. The teaching materials and tools developed include: (1) syllabus, (2) lesson plans, (3) teaching materials based on local wisdom based on the surrounding environment, (4) evaluation tools.

The teaching materials used in learning so far have not helped the learning process optimally because the teaching materials are still conceptual and have not related to the surrounding environment where students live. Printed books used in learning have not been able to explore the basic abilitiespossessed by students, existing social studies printed books only review concepts so that students become passive. The teacher only explains the material and then gives sample questions followed by practice questionsindependently. The assessment of learning outcomes carried out is still focusedon cognitive assessment only, without a grid of questions that refer to the indicators and cognitive levels of Bloom's taxonomy. Activities carried out by students in the learning process are reading material in existing social studies textbooks and students answering questions. Has not related the learning of the surrounding environment with the real situation of students.

The initial condition of social studies teaching materials, the conditionof students in social studies learning shows the initial conditions of obstacles that arise, including: 1) the absence of teaching materials that are in accordance with the environment around students that make students active in learning, 2) low scientific thinking skills in social studies learning, and 3) low cognitive learning outcomes of students. The initial conditions are used as the basis for formulating the development goals of the developed teaching materials. This research produces teaching materials that optimize students in scientific thinking skills in social studies learning, relate learning to the environment around students, and can improve students' cognitive learning outcomes.

The characteristics of social studies teaching materials are developed based on local wisdom. This local wisdom-based social studies teaching material contains components based on local wisdom, this can be seen in the stages in the teaching material. The components in the teaching materials refer to the presentation of Hosnan (2019: 39) which in his learning activities includes steps including: (1) observing, (2) questioning, (3) collecting data (experimenting), (4) associating, (5) communicating (networking). Stages in scientific steps are a process of learning to achieve the goal of solving problems.The process here is a stage that must be passed so that the problem cannot necessarily be solved immediately. The basic competencies possessed by students are obtained with a process so that in meeting existing problems can be solved systematically.

This local wisdom-based teaching material interacts with the environment around students, this is in line with the learning theory developed by Vygotsky which has the understanding that learning for childrenis carried out in interaction with the social and physical environment. Studentsbecome familiar with the characteristics of the evaluation tools developed in this study, namely having valid, reliable criteria, difficulty levels having balanced proportions, and having good distinguishing power based on the results of field trials. The components developed in the evaluation tool include: (1) test question grid, (2) test questions, (3) answer keys and assessmentguidelines.

The advantage of teaching materials based on local wisdom based on the surrounding environment is that it is able to improve aspects of students' scientific thinking skills from the process of observing, questioning, collecting information, associating and communicating so that solving the results of problems encountered in learning is more structured and not instant because it goes through a stage.

The weakness of teaching materials based on local wisdom based on the surrounding environment is that their

application requires a stage ofreadiness from all aspects of learning because the learning carried out demands active students. The measurement of scientific thinking skills also requires a more detailed assessment instrument because it measures aspects ofscientific thinking which include observing, questioning, gathering information, associating and communicating.

The results of validation of teaching materials conducted by five expertvalidators showed a positive final score with very good criteria. The assessment of five validators against the syllabus obtained an average final score of 3.47 with excellent criteria. The assessment of RPP obtained a final score of 3.43 with very good criteria. The assessment of teaching materials obtained a score of 3.37 with very good criteria. The assessment of the evaluation tool obtained a score of 3.50 with very good criteria. The scores of the learning tools developed all exceeded the minimum limit of research success, which was > 3.25, thus the overall teaching materials and componentsdeveloped were very valid.

The results of scientific thinking skills in the experimental class were as many as 24 students (77.42%) managed to meet the criteria very good and 4 students (22.58%) met the criteria well. These results were much more significant when compared to the control class, because in the control class only18 students (56.25%) obtained good criteria and 14 students (43.75%) obtainedpoor criteria. The results of this achievement if interpreted with predeterminedcriteria that 85% of students must acquire aspects of scientific thinking skills with good criteria, it can be concluded that experimental classes that use teaching materials based on local wisdom based on the surrounding environment succeed in exceeding these criteria because the averageachievement of aspects of scientific thinking skills reaches 85.21% of very goodand good criteria.

The paired sample t-test results for the experimental group obtained a calculated value = 26.58 with a significance value of 0.000 < 0.05.

4. Conclusion

Social studies teaching materials based on local wisdom have proven effective in improving scientific thinking skills in Class VI social studies learning in the first semester of elementary school in Jekulo Kudus sub-district.Effectiveness indicators based on learning outcomes and improvement ofstages of scientific thinking skills. The effectiveness of social studies teaching materials based on local wisdom can be seen from: (1) there was a significant increase in learning outcomes, namely in the control group, as many as 53.1% had an increase in moderate learning outcomes and 46.9% in the low category. In the experimental group, 58.1% had a moderate increase in learning outcomes and 41.9% were high; (2) Learning outcomes achieve completeness, namely due diligence results for the experimental group of 5.97 with significance values of 0.000 < 0.05, which means that the average learning outcomes of 80.58 markedly exceed 69 or have reached learning completeness, while in the control group of -0.781 with a significance of 0.441 > 0.05, which means that in the kont group

Social studies teaching materials based on local wisdom are the development of teaching materials that use scientific stages of local wisdom inlearning syntax. In accordance with the purpose of developing teaching materials, the implication of the application of teaching materials is to improvestudents' scientific thinking skills. Another implication is the improvement of learning outcomes and student activeness in solving problems systematically.

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Conflict of Interest

The authors declare no conflicts of interest.

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