

Development Of Creativity Problem-Based Learning Models To Increase students Thinking Creativity In Elementary Schoolcore Of Medan City

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Article Info	Abstract
<p>Article History</p> <p>Received: May 14, 2021</p> <p>Accepted: December 17, 2021</p> <hr/> <p>Keywords : Learning Model, Problem Based Learning, Loaded with Creativity, Creative Thinking</p> <p>DOI: 10.5281/zenodo.5701056</p>	<p><i>Education is one indicator of the progress of a nation, an advanced nation is evidenced by a high level of education. A good education and learning process is one that is interactive, inspiring, fun, challenging, motivates students to participate actively, and provides sufficient space for initiative, creativity, and independence in accordance with the talents, interests, and physical and psychological development of students. . To achieve good learning quality, educators are expected to be able to use methods and media that are able to actively involve students and create a fun, interesting, and interactive atmosphere that is adapted to the stage of development of thinking, characteristics and learning conditions of students. Some of Indonesia's development achievements from the dimension of education in terms of global perspective are still lagging behind. This research is based on the problem of the learning model that causes the lack of creativity in students' thinking. There needs to be innovations that can help teachers create interesting learning and help students learn independently. The innovations carried out include the development of Civics teaching materials through the development of Problem Based Learning (PBL) learning models. This type of research is research and development using the Plomp approach. In this research, the learning model, learning tools, and instruments needed were developed. Plomp's R&D research steps consist of five development phases, namely (1) initial investigation phase, (2) design phase, (3) realization phase, (4) test, evaluation, and revision phase, and (5) implementation phase. Based on the results of data analysis and research discussion, it can be concluded that the development of the PBL learning model has met the level of validity, practicality and effectiveness to increase students' creativity. The PBL learning models and tools developed have met the criteria of validity with all aspects of validity, practicality in the high category and effectiveness in the high category.</i></p>

Introduction

Education is one indicator of the progress of a nation. A developed nation is evidenced by a high level of education. This is in accordance with the government's mandate that: "National education functions to develop capabilities and shape the character and civilization of a dignified nation in the context of educating the nation's life, aiming to develop the potential of students to become human beings who believe and fear God Almighty, have noble character. , healthy, faithful, capable, creative, independent, and become a democratic and responsible citizen.

To achieve good learning quality, educators are expected to be able to use methods and media that are able to actively involve students and create a fun, interesting, and interactive atmosphere that is adapted to the stage of development of thinking, characteristics and learning conditions of students. This condition is also very necessary in learning in elementary school education units (SD). Imade (2016) revealed that learning encourages the improvement of higher-order thinking skills in students, including analyzing, synthesizing, and evaluating using various theories and logic. Besides, the problem-solving process and the decision-making process are very important given the opportunity for students to practice building them.

Learning in the 2013 Curriculum according to Permendikbud No. 57 states the application of integrated thematic learning, namely learning content in Elementary School/Madrasah Ibtidaiyah subjects organized into themes. The subjects in elementary schools as referred to in article 3 paragraph 1 of the Minister of Education and Culture Number 57 of 2013 are "grouped into general subjects group A and general subjects group B". The general subjects of Group A as referred to in paragraph (1) letter a are curricular programs that aim to develop the attitude competence, knowledge competence, and skill competence of students as the basis

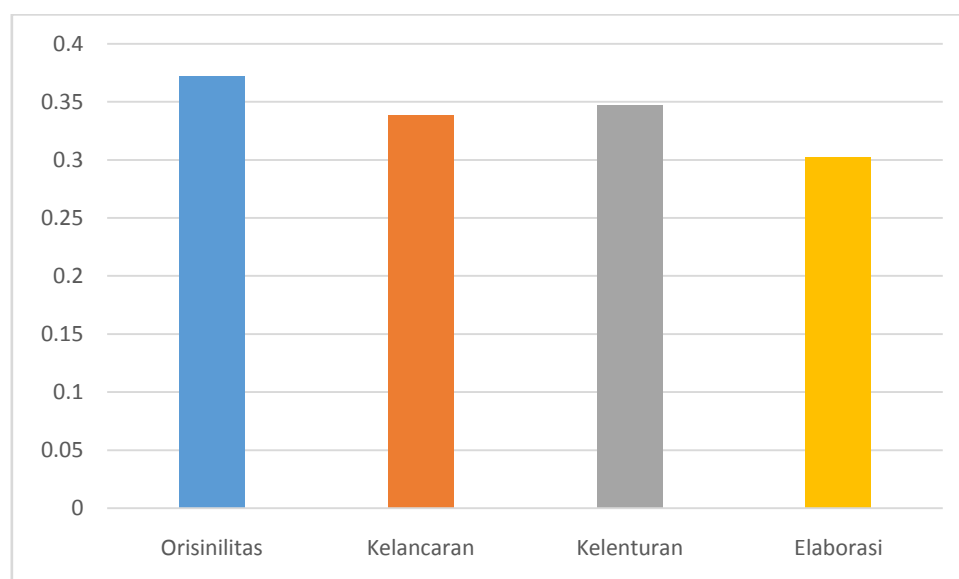
and strengthening of abilities in the life of society, nation and state. Pancasila and Citizenship Education is one of the general subjects of group A.

Learning Pancasila and Citizenship Education (PKn) aims to form a society that is aware of its obligations as citizens. Winarno (2014:36) explains that the purpose of Civics is to shape students into human beings who have a sense of nationality and love for the homeland that are imbued with the values of Pancasila, the 1945 Constitution of the Republic of Indonesia, the spirit of Bhineka Tunggal Ika, and commitment to The Unitary State of the Republic of Indonesia. Civics is a place to instill character education at all levels of education. Civics emphasizes the aspects of moral development and noble values of the nation that refer to the values of Pancasila.

The purpose of Civics is to show that the development of human resources must be in accordance with the Indonesian ideology in knowledge, attitudes, and skills as citizens. For this reason, the competencies in Civics that must be mastered include the competence of attitudes, knowledge, and skills to be the main focus in learning. In Citizenship Education, these competencies are usually referred to as citizen knowledge (civic knowledge), citizen attitudes (civic dispositions), and citizen skills (civic skills).

Civics is not only a theoretical science that provides knowledge to students, but also must be interpreted as an adaptive science that examines phenomena in everyday life. Therefore, civic knowledge must be emphasized starting from basic education. Civics learning in elementary schools is currently not as expected. Eddy (2014: 64) says that the development of Civics education in Indonesia to date, both at the conceptual level and at the practical level, there are very basic paradigmatic weaknesses. Unniah (2012: 5-7) describes the problems of Civics learning in elementary schools including (1) a curriculum that is too heavy; (2) lack of ability to capture keywords in competency standards and basic competencies; (3) teaching practice is still conventional; (4) learning is not reality (contextual); (5) teaching based on textbooks (textbook center); (6) evaluation only leads to the rote aspect. Civics learning problems are very complex. Ardinata, et al (2014: 180) Civics learning in elementary schools still uses the lecture method, the teacher only delivers the material and does not act as a facilitator.

Researchers have made observations to see the learning of Citizenship Education for class V in elementary schools in the Medan area sub-district. Researchers took samples in November 2019. From the results of the observations above, the researchers concluded that the low creativity of students in state core schools in the Medan Area sub-district. Elementary school creativity data shown by indicators of originality, fluency, flexibility and elaboration, the results show the level of originality of students from 6 elementary schools, namely SD Negeri 060800, SD Negeri 060796, SD Negeri 060791, SD Negeri 060814, SD Negeri 060826 and SD Swasta Al Washliyah with the average values for originality 37.2%, fluency 33.8%, flexibility 34.7%, and elaboration 30.2%. For more details can be seen in the following image.



Figures Student Creativity Data in 6 State Core Schools in the Medan Area District

According to H. Erman (2003:11), students are said to have completed learning, if students have achieved 65% absorption and 80% classical learning completeness, which means that a class's learning completeness has not reached 80%, it is necessary to carry out diagnostics and remedial before the material is continued. . Absorption is the percentage of mastery level scores for each student in a test.

Most teachers use books from the center as a learning resource. The results of an interview with the head of the Technical Service Unit (UPT) of the Medan Area District education office, Mrs. Nurbaity on May 5, 2019 argued that students still have difficulty understanding the material in Civics learning. Most of the students still use the method of memorizing and listening to the teacher. Teachers have difficulty in teaching the material in the book because they do not understand the current curriculum. There is little material in the book so the teacher must develop it independently. Some elementary school teachers in this area are of the opinion that the material currently in the books is not yet fully capable of developing student competencies. In the cognitive aspect, students still memorize the material in the book. This affects student learning outcomes, because if students only focus on memorizing aspects, students have difficulty solving problems that require problem solving and reasoning aspects. This inability results in the low quality of learning as evidenced by student learning outcomes that are less than optimal.

Creativity is sometimes misunderstood as a privilege possessed by certain people and is carried from birth, even though creativity is the potential of every individual. According to Ahmad Susanto (2011: 114), creativity is essentially a person's ability to give birth to something new, either in the form of ideas or real works that are relatively different from those that existed before. Students' learning abilities are further improved if their creative abilities are involved, both formally and informally. Students' learning abilities are further improved if their creative abilities are involved, both formally and informally. Basically, all students have creative potential that must be developed both at school and at home. Students' creative abilities must be explored in order to achieve student success in the future so that they are able to realize potential and quality human resources.

Munandar (2004:104) states that "creativity is the ability to make new combinations, or see new relationships between elements, data, or things that already exist". During the learning process, teachers can use it to form students' creative thinking skills. And learning is more effective if there are two elements that interact in the teaching and learning activities (KBM) that take place, namely, elements of teachers and students. First, the teacher element where the teacher must be able to help students in the teaching and learning process, provide feedback by asking some challenging questions, these questions are expected to help students find new ideas and teachers are also expected to be able to create fun and conducive teaching and learning situations. Second, the student element is that students are expected at the end of the KBM process students to be active in asking questions, expressing ideas, being able to answer questions posed by teachers or students, being able to exchange information and other student learning activities. Learning methods that do not involve the active role of students are less able to improve students' creative thinking skills. Less interactive and less fun learning makes students' creativity less explored which then has an impact on students' low creativity.

To be able to generate student learning activities in the learning process is to replace the learning model used in the learning process in the classroom, such as learning carried out with lectures and question and answer, this learning model makes students bored and not creative. The teaching and learning atmosphere that is expected to increase students' creativity is learning that can make students as subjects who can try to explore themselves, solve problems themselves from a concept being studied, while the teacher only acts as a motivator and facilitator. The expected learning situation is a situation that can make students improve their creative thinking skills (students are expected to play more roles).

There needs to be innovations that can help teachers create interesting learning and help students learn independently. The innovations carried out include the development of Civics teaching materials. One approach that can be used for the development of these teaching materials is Problem Based Learning (PBL). The development of PBL-based teaching materials can be a solution to overcome the problems that occur.

This understanding explains that a teaching material must be designed and written with instructional rules because it is used by teachers to assist and support the learning process. Learning materials or materials are basically the "content" of the curriculum, namely in the form of subjects or fields of study with topics/subtopics and details (Ruhimat, 2011:152).

Looking at the explanation above, we can see that the role of a teacher in designing or compiling teaching materials is crucial to the success of the learning and learning process through a teaching material. Teaching materials can also be interpreted as all forms of materials that are systematically arranged that allow students to learn independently and are designed according to the applicable curriculum. With the teaching materials, the teacher is more coherent in teaching the material to students and all predetermined competencies are achieved.

The statement confirms that problem-based learning is very useful and ideal for heterogeneous classes, where students with mixed abilities can come together to create solutions. It provides contextual meaning in learning. Some teachers admitted that they did not know about PBL, this is because PBL is a learning method that is rarely used. Referring to the explanation in the Primary and Secondary Education Process Standards, it is stated that to encourage students' ability to produce contextual work, both individually and in groups, it is highly recommended to use a learning approach that produces Problem Based Learning-based work. This opinion is strengthened by the opinion of Arend (2008: 41) PBL basically presents various

authentic and meaningful problem situations to students, it can serve as a springboard for investment and investigation, besides that students will get used to answering questions based on problems that occur in real life.

PBL is expected to be able to provide training and capabilities for each individual to solve existing problems. PBL-based Civics teaching materials as a supplement can help students to deepen the material. Students find it easier to learn independently. The problems in the book require students to use reasoning in finding solutions. In addition, students can learn according to their abilities. These teaching materials help maximize the improvement of Civics learning competencies, especially civic knowledge.

So far, there has never been a problem-based teaching material adopted in Civics learning in the district so that researchers are interested in innovating by developing problem-based models to increase student activity in Civics learning so as to create students who are able to solve existing problems related to citizenship and morals.

Based on the above background, it is necessary to conduct a development research based on Problem Based Learning (PBL) containing creativity. As a solution to the problems that have been put forward, this researcher conducted a research entitled "Development of a Creative-Based Learning Model with Problems to Increase Creativity of Elementary School Students".

METHOD

This type of research is research and development (Research and Development). In this research, the learning model, learning tools, and instruments needed were developed. Asikin and Cahyono (2004), stated that research and development aims to produce learning tools, such as syllabus, teaching materials, media, practicum modules, student work exercises, tools to measure learning abilities, tools to measure learning outcomes, and so on. Sukmadinata (2005:164), said research and development is a process or steps to develop a new product or improve an existing product, which can be accounted for. From the various R&D theories that have been stated previously, in this study using the approach Plomp. Plomp's R&D research steps consist of five development phases, namely (1) initial investigation phase, (2) design phase, (3) realization phase, (4) test, evaluation, and revision phase, and (5) implementation phase.

This research was carried out at the Core Elementary School in the Medan Area District, Medan City, which consisted of 6 elementary schools, namely SD Negeri 060800, SD Negeri 060796, SD Negeri 060791, SD Negeri 060814, SD Negeri 060826 and SD Swasta Al Washliyah.

Data analysis to see the feasibility of the learning model in increasing students' thinking creativity. In this case, descriptive data analysis, namely the exposure of product feasibility, is carried out after the score data given by experts and educational practitioners on the feasibility of the developed product by calculating the average score. Furthermore, the criteria for evaluating the feasibility by experts and practitioners of education on learning models in improving students' thinking creativity can be seen in the following table:

Table of Eligibility Assessment Criteria by Experts and Practitioners Education Against the PBL Model

ScorInterval	Criteria
3,50 – 4,00	Very Worthy
3,00 – 3,49	Worth without revision
2,50 – 2,99	Worth revising
2,00 – 2,49	Not worth revising
1,00 – 1,99	Not feasible

The criteria for the feasibility of the PBL model in increasing students' creative thinking by education experts and practitioners is if the average score is 3.00. Furthermore, the criteria for individual, small group and field group trials on the PBL model in improving students' thinking creativity developed can be seen in the following table:

Table of Assessment Criteria for Individual, Small Group and Tests Field Group Against the PBL Model

ScorInterval	Criteria
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3,50 – 4,00	Very Worthy
3,00 – 3,49	Worth without revision
2,50 – 2,99	Worth revising
2,00 – 2,49	Not worth revising
1,00 – 1,99	Not feasible

The criteria for the feasibility of the PBL model in increasing students' thinking creativity with individual trials, small group trials and field group trials is if the average score is 3.00.

RESULTS AND DISCUSSION

The presentation of the data from this research is in accordance with the stages of development that have been carried out, including pre-survey, pre-trial, and field trials. The implementation of the learning process that has been carried out is in accordance with the operational stages described in the research method.

The data of the average value of the preliminary test results for the creativity level of the fifth grade elementary school students in the Core District of Medan Area is at a low level (1.43). When analyzed based on the creativity indicator, it turns out that the average value for the originality indicator is 1.86; for fluency indicator is 1.43; for the flexibility indicator is 1.29; and for the elaboration indicator is 1.14. This needs to be improved immediately, considering that creativity is the result of the ability to think logically and creatively.

Based on the results of the analysis of the results of the preliminary survey on the condition of student learning outcomes mentioned above, it is necessary to develop a learning model based on problems that often arise in the real life (concrete) of students everyday. The learning model is the Problem Based Learning Model (PBM) or Problem Based Learning (PBL).

In general, the results of the analysis of the current learning tools (pre-survey results) show that the learning process of core elementary school students in the Medan Denai sub-district is still teacher-centered. Teachers are more trying to teach students, students have not been trained to experience a concrete learning process based on real-life problems. For this reason, it is necessary to design a learning process that is oriented towards increasing student activity in learning, so that in the end it will increase student creativity.

The problem-based learning model developed is a series of learning stages consisting of 5 stages of learning, including (a) Student orientation to problems, (b) Organizing students to learn, (c) Guiding individual and group investigations, (d) Developing and presenting results works, (e) Analyzing and evaluating the problem solving process.

Learning tools consist of a syllabus, lesson plans (RPP), teacher handbook designs, student book designs, student worksheets (LKS), evaluation instruments, and learning media. The learning tools developed in this research are lesson plans, BPG, BS and problem-based worksheets.

The design of the Student Creativity Test Sheet is prepared based on the creative thinking rubric that has been discussed in the theoretical study chapter. To obtain data about the creativity of students used tests that were distributed to the sample in this case students. The instrument made refers to the nature that existed before. The number of items for the creativity test is 30 items.

Based on the results of revisions and changes to the learning model, learning tools and instruments used in the developed PBL Learning model, it was determined that the PBL learning model along with all learning tools and assessment instruments had met the validity criteria and could be tested in the field (classroom learning).

All instruments in this study were tested for feasibility/validated by experts/practitioners before being used to measure the validity, practicality and effectiveness of the developed PBL Learning model. The feasibility of each instrument is based on 4 aspects, namely: 1) formulation of objectives, 2) instructions for using the instrument, 3) material, including content and language and 4) general assessment (conclusion).

Table Result of Feasibility Test of Research Instruments

No	Instrument Type	Assessment Aspect				
		Purpose	Instructio n	Conte nt	Languan ge	Conclus ion
1	PBL learning model content validation sheet	V	V	V	V	LDP
2	Observation sheet on the implementation of the PBL learning model	V	V	V	V	LDP
3	RPP validation sheet	V	V	V	V	LDP
4	Teacher's Handbook validation sheet	V	V	V	V	LDP
5	Student's Handbook validation sheet	V	V	V	V	LDP
6	Student Activity Sheet validation sheet	V	V	V	V	LDP

7	PBL Learning Model Implementation Assessment Sheet	V	V	V	V	LDP
8	PBL Learning Model effectiveness assessment sheet	V	V	V	V	LDP
9	Student response questionnaire	V	V	V	V	LDP
10	Teacher response questionnaire	V	V	V	V	LDP
11	Creativity test validation sheet	V	V	V	V	LDP

Information:

V = the result of the expert's assessment stating "Valid"

LDP = conclusion from expert judgment that the instrument used is "Appropriate to Use with Improvements"

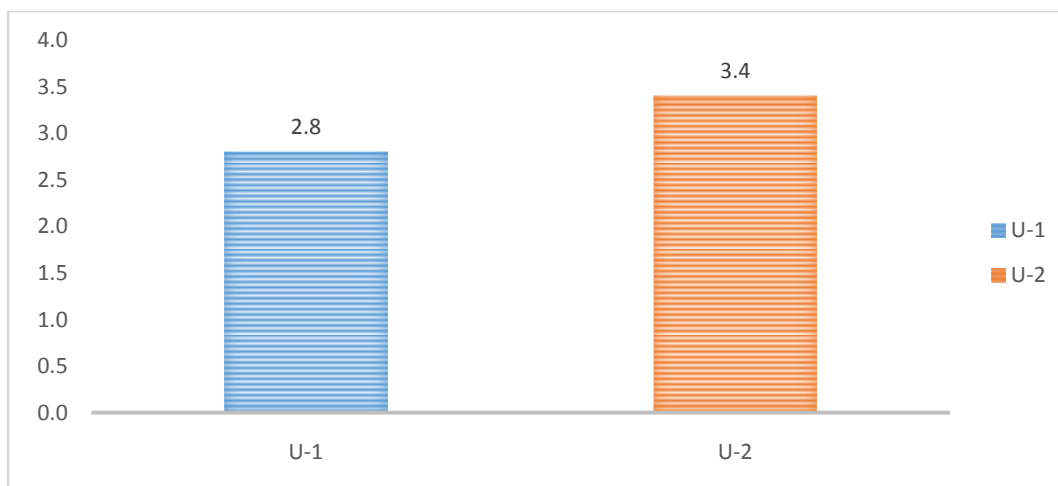
The process of validating the PBL Learning model is carried out by means of an assessment by 3 experts. Each expert provides scores and input/suggestions on the validation sheet. The following is the average value of the validation results given by the validator contained in table 2:

Table 2. Average Value of PBL Learning Model Validation Results

No	RatedAspect	Expert			Number	Average
		1	2	3		
1.	Supporting Theory	4,0	4,0	4,0	12,0	4,00
2.	Syntax	4,0	4,0	4,0	12,0	4,00
3.	Social System	4,0	4,0	4,3	12,3	4,11
4.	Management reaction principle	4,0	4,0	4,0	12,0	4,00
5.	Support System	4,0	4,0	4,0	12,0	4,00
6.	Instructional impact and accompaniment	4,0	4,0	4,0	12,0	4,00
7.	implementation of learning	4,0	4,0	4,0	12,0	4,00
8.	evaluation	4,0	4,0	4,3	12,3	4,11
	Number					32,22
	Average					4,03

Overall, the results of trial-2, when referred to the criteria for the practicality and effectiveness of the PBL Learning model developed according to chapter III, turned out to have met the criteria for the validity, practicality and effectiveness of the learning tools developed.

Based on the results of data analysis, it is known that the level of creativity of students during the 1st trial of the PBL learning model was 2,3 and after being given the 2nd trial of the PBL learning model was 3.6 (maximum scale 4). If these values are referred to the criteria for the level of creativity according to the provisions in chapter III, it is concluded that the level of creativity of students is at the "Medium" level. The increase in the average value of students' creativity from before the learning trial and after the learning model trial increased by 0.6.



Picture The Level of Student Creativity in the 1st Trial of the Learning Model (U1) and the 2nd Trial of the PBL Learning Model (U2)

After processing the data from the validation test results, practicality tests, and effectiveness tests on the developed PBL learning model, the overall results are obtained as presented in Table 2 as follows.

Table Results of Validation Test, Practicality Test, and Effectiveness of the PBL Learning Model

No	RatedAspect	Evaluation	
		Value	Categori
1.	Learning Model Book Validation	4,03	Valid
2.	Learning Tool Validation		
	RPP	4,13	Valid
	Teacher's handbook	4,31	Valid
	Student's handbook	4,23	Valid
	Student worksheet	4,45	Valid
3.	Practical Learning Model	4,11	High
4.	Effectiveness Learning Model		
	Teacher's ability to manage learning	3,12	High
	Teacher's response (%)	93,33	High
	Student response (%)	85,00	High
	Student creativity	3,40	High

Based on the overall data in table 3 above, it is known that the PBL learning model and tools developed have met the criteria of validity with all aspects of validity, practicality in the high category and effectiveness in the high category.

CONCLUSION

Based on the results of data analysis and research discussion, it can be concluded that the development of the PBL learning model has met the level of validity, practicality and effectiveness to increase students' creativity. The PBL learning models and tools developed have met the criteria of validity with all aspects of validity, practicality in the high category and effectiveness in the high category.

The level of validity of the PBL learning model obtained a value of 4.03 with a "Valid" category, the level of validity of the RPP product with a value of 4.13 in the "Valid" category, the level of validity of the Teacher's Handbook product with a value of 4.31 with the "Valid" category, the level of validity Student Handbook products with a value of 4.23 with the "Valid" category and the level of validity of the Student Worksheet products with a value of 4.45 with the "Valid" category. The level of practicality of the PBL learning model obtained a value of 4.11 with the "High" category. The level of effectiveness of the PBL learning model

which consists of 4 aspects, namely the ability of teachers to manage learning obtained a value of 3.12 with a "High" category, Teacher Responses obtained a value of 93.33% with a "High" category, Student Responses obtained a value of 85.00% with "High" category, and the creativity of students with a value of 3.40 in the "High" category.

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