Development of CPS Model Mathematics Learning Tools Based on Basic Literacy Containing Local Wisdom to Realize the Pancasila Student Profile

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Abstract. The aim of this research is to determine the characteristics of CPS model mathematics learning tools based on basic literacy based on local wisdom to create a valid, practical and effective Pancasila student profile. This research uses the Research & Development (R&D) method with the Four-D development model which consists of 4 development stages, namely: Define, Design, Develop and Disseminate. The subjects and targets of the research were fifth grade students at manggala Elementary School, Makassar City. Based on the results of the validator assessment, an average validity percentage of 3.87 (valid) was obtained. Based on the practicality percentage, the average was 3.85 (practical). Meanwhile, based on the results of students' mathematics learning tests, an average score of 87.15 was obtained, which means that the score met the KKM score.

Keywords: Mathematics Learning Tools, CPS Model, Basic Literacy, Loca Wisdom and Pancasila Student Profile

1 Introduction

In the current era of globalization in the 21st century, progress in science and technology is very rapid. Every human being cannot be separated from the digital world. The various innovations that are present have an impact on all areas of life, one of which is the field of education.

One way to overcome the problem of change in the world of education in accordance with the times is through freedom of learning [1]. The Minister of Education and Culture's policy, known as freedom to learn, has become the basis for a new foothold in the management of education in Indonesia. This policy is a means of returning the spirit of education to the initial goals of national education as mandated in Law Number 20 of 2003 concerning the national education system which reads: "National edu-

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cation aims to develop the potential of students to become human beings who believe in and obey God Almighty, with good morals. noble, healthy, knowledgeable, capable, creative, independent, and a democratic and responsible citizen." [2] The role of national education is to increase potential and competence, build a national character that has dignity and manners, which aims to make the nation's life more intelligent.

True education must be able to deliver individuals to a higher level of understanding, behavior and character. Not only that, education must also be able to maintain and maintain the nation's philosophy and ideology so that the nation is not shaken by a culture that is not in line with the ideals of the Indonesian nation. The Pancasila student profile is an effort to lead individuals/students to reach a level of understanding, behavior and character that is based on Pancasila values so that Pancasila remains upright and becomes an ideology that is understood and implemented by students today. According to [3] [4] there are 6 profiles of Pancasila students which are core competencies in the driving teacher program in realizing the Pancasila student profile. Among them; 1) have faith, be devoted to God and have noble character; 2) independent; 3) critical reasoning; 4) creative; 5) work together; 6) global diversity.

However, in reality the problem that has occurred in the educational environment recently is the problem of moral degradation. Based on KPAI data, in 2020, the number of bullying cases added to the record of children's problems [5]. There are still many cases of violations by children or students which shows that the country is facing a multidimensional crisis. This problem is not much different from the problems found at Manggala Elementary School, Makassar City. Based on the information obtained, there are still problems with students who are unknowingly involved in cases of bullying, even to the point where fights occur between students.

Based on these problems, in an effort to realize the Pancasila student profile, an educational innovation is needed that is able to shape the attitudes and character of children into positive individuals. Educational innovation is a necessity to bring about changes in the quality of students and schools [6]. Learning innovation can be carried out by developing learning tools that combine learning models with character and culture development to create an innovation, namely the development of creative problem solving (CPS) mathematics learning tools based on basic literacy containing local wisdom.

The creative problem solving model is a learning model that focuses on teaching and problem solving skills, followed by strengthening skills [7]. The Creative Problem Solving (CPS) model is a learning model from start to finish that prioritizes the process of solving problems based on one's own creative ideas so that one can find definite answers by working together as a team [8]. The Creative Problem Solving (CPS) model is based on basic literacy and contains local wisdom [9]. Relevant to the independent learning curriculum implemented in schools because it provides the widest possible opportunity for students to solve mathematical problems with their own strategies creatively based on basic literacy and empowering local skills and potential in each region or empowering existing local values. Basic literacy is the basic ability to read, write, listen and count.

The goal of basic literacy is to optimize a person's ability to read, write, communicate and calculate [10]. Santika and sudamawan [11] stated that learning containing

local wisdom [12] is education that teaches students to always be close to the concrete situations they face every day [13]. This concept is in line with the demands of independent learning which emphasize that students are free to think creatively, innovate, and strengthen Pancasila students so that the teaching and learning process runs actively, effectively and efficiently.

2 Method

In this part, we provide some definitions and basic properties related to weak contraction mapping, F-stable, rate convergence that used in main results.

This type of research is development research or known as Research & Development (R&D). Borg and Gall development research is developing an educational product [14]. Research and development methods or Research and Development are research methods used to produce certain products, and test the effectiveness of these products [15]. Research and development in this research is a process for developing, validating, practicality and effectiveness of research products, which are developed in the form of: Syllabus, Learning Implementation Plan (RPP), Student Worksheets (LKS) and Modules.

This research was carried out at SD Manggala, with a population of all class V students at SD Manggala Makassar City with a total of 72 students consisting of two classes, namely, Va and Vb, using the Simple Random Sampling technique. The research sample for class Va consisted of 32 students.

The model and design of this research uses a device development model according to known Sivasailam Thiagarajan, Dorothy S. Semmel, and Melvyn I. Semmel as Four-D. This model consists of 4 development stages, namely: define, design, develop and disseminate or adapted into 4-P, namely: defining, designing, development and deployment.

Research instruments are tools that researchers use during the process the research was carried out, the research instruments were:

1) Validation; The validation sheet is used to determine the level of validity and practicality of the learning device or product being developed.
2) Observation; This activity was carried out through direct observation at Manggala Elementary School. The observation sheet includes an observation sheet on the implementation of the learning model with the product being developed, an observation sheet on teacher and student activities.
3) Questionnaire; Lift was used to determine the responses of Manggala Elementary School students and teachers to the product being developed, namely a CPS model mathematics learning tool based on basic literacy containing local wisdom to embody the Pancasila student profile.
4) Test; The test is carried out to measure student learning outcomes and create a Pancasila student profile (1) who is faithful, devoted to God and has noble character; (2) independent; (3) critical reasoning; (4) creative; (5) work together; 6) global diversity) with a CPS model based on basic literacy containing local wis-

dom, this is to find out the tools used in the active, effective and efficient learning process and have a positive impact on students.

5) Documentation; The documentation used in this research is photos of research activities, sound recordings and videos. As a completeness of the research results

The data collection techniques used in this research by developing mathematics learning tools are:

1) Observation; Researchers collect or filter all existing observation results then relate it to the achievements or indicators that have been set.
2) Questionnaire; Questionnaire used to measure the suitability of the device CPS model learning based on basic literacy containing local wisdom realizing the Pancasila student profile that has been developed with using a Likert scale, namely strongly agree (SS), agree (S), disagree (TS) and strongly disagree (STS).
3) Test; Multiple choice & essay tests are used to collect data on end of learning or after using the basic literacy-based CPS model Contains local wisdom to embody the profile of Pancasila students who have been taught develop.

Product quality data resulting from the development of learning devices CPS model mathematics based on basic literacy containing local wisdom embodies the profile The Pancasila students obtained were analyzed with the help of SPSS to obtain a score or the results of the quality of products that have been developed, namely learning devices CPS model mathematics based on basic literacy containing local wisdom embodies the profile Pancasila students in the form of: syllabus, learning implementation plan (RPP), worksheets students (LKS) and modules.

The quality of the products developed includes validity, practicality and effectiveness which includes activities, responses, learning outcomes, Pancasila student profiles, as well as classical student learning completeness. The quality of development products is shown in the following table:

Table 1: Quality of Development Products

Intervals	Criteria
$4{,}20 \leq X \leq 5{,}00$	Very Quality
$3{,}40 \leq X < 4{,}20$	Quality
$2{,}60 \leq X < 3{,}40$	Quite Quality
$1{,}80 \leq X < 2{,}60$	Not Quality
$1{,}00 \leq X < 1{,}80$	Very Low Quality

3 Results and Discussion

The product developed in this research is a CPS model mathematics learning tool based on basic literacy containing local wisdom to embody the Pancasila student profile. The learning tools developed are: Syllabus, Learning Implementation Plan (RPP), Student Worksheets (LKS) and Modules.

3.1 Define

The initial stage of this research is the definition stage, including material analysis and student analysis. Analysis was carried out through interviews with mathematics teachers at Manggala Elementary School, Makassar City. Material analysis refers to fifth grade elementary school mathematics learning. Some of the material is used as a discussion reference regarding the content of the material presented in the learning tools.

Student analysis includes trait analysis and needs analysis. According to the characteristic analysis of the results of interviews with fifth grade elementary school teachers, when learning tools are presented in an interesting way it will make it easier for students to understand their learning. Therefore, it is necessary to present interesting learning tools with a basic literacy-based CPS model containing local wisdom to realize the Pancasila student profile.

3.2 Design

The second stage of this research is the design stage. At this stage, the display on the learning tools is designed in such a way that the CPS model is based on basic literacy and local wisdom skills to create a Pancasila student profile.

3.3 Development

The development model used is the Four-D model which consists of 4 development stages, namely: Define, Design, Develop and Disseminate. development is carried out by preparing mathematics learning tools in the form of a Syllabus, Learning Implementation Plan (RPP), Student Worksheets (LKS) and Modules with a CPS model based on basic literacy skills and local wisdom to realize the Pancasila student profile.

The validation process is carried out to assess the level of validity of the learning tools that have been created. Validation was carried out by an education expert, namely Prof. Dr. Abdul Rahman as validator I, M.Pd and Prof. Nurdin Arsyad, M.Pd as Valudator II. The validation results for each aspect developed can be seen in the following table:

Table 2: Learning Device Validation Results

Aspect	**Validator Value**		
	Validator I	**Validator II**	**Average**
Syllabus	4	4	4
Learning Implementation Plan	4	4	4
Student Worksheets	4	4	4
Modules	4	3	3,5
Average			**3,87**

Based on the validation results table above, the learning device aspect obtained an average of 3.87 which is included in the "valid" category because it is in the interval 3.5 ≤ to create a Pancasila student profile that is suitable for use and suitable for testing in the field.

The next stage, namely the practicality test stage, was obtained using a student response questionnaire with an average practicality value of 3.85 obtained in the "practical" category because it was in the interval 3.5 ≤ basic literacy, local wisdom skills to realize the Pancasila student profile that meets practical criteria.

The effectiveness test can be obtained by analyzing the learning results test using mathematics lesson questions in grade V elementary school with number material. It is known that 32 fifth grade students at Manggala Elementary School, Makassar got an average score of 87.15 with an ideal score of 100. It is known that the minimum score obtained by students was 75 and the maximum score was 99. If the scores are categorized into 3 categories, then there are 50% in the low category, 25 % in the medium category and 25% in the high category. The results obtained indicate that mathematics learning tools with the CPS model based on basic literacy, local wisdom skills to realize the Pancasila student profile are effectively used in mathematics lessons in class V of elementary schools.

3.4 Disseminate

The distribution stage was carried out at the trial location by distributing CPS model mathematics learning tools based on basic literacy, local wisdom skills and creating Pancasila student profiles on number topics to Manggala Elementary School students in Makassar specifically and in elementary schools in Makassar.

4 Conclusion

Development of mathematics learning tools using the CPS model based on basic literacy and local wisdom skills to realize the Pancasila student profile. Based on the results of the validator assessment, an average validity presentation of 3.87 (valid) was obtained. Based on the percentage of practicality, an average of 3.5 (practical) was obtained. Meanwhile, based on the results of students' mathematics learning tests, an average score of 87.15 was obtained, which means that the score met the KKM score. Therefore, it can be concluded that the product produced is suitable for use because it meets the values of validity, practicality and effectiveness.

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