



LKPD Analysis of HOTS Type in Mathematics Learning for Elementary School Grade IV

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Abstract. This research aims to describe the HOTS type analysis of teacher's LKPD two dimensional figure of mathematics for elementary school' student grade VI. The research is using description of qualitative method. Subject of the research is the guide teacher who teaches in class VI of elementary school in Palembang City. Data were collected using questionnaire. The result showed that the quality of the HOTS type analysis, especially in Palembang is quite better. Although, the implementation of HOTS type analysis of teacher's LKPD is still reducing. It's caused a difficulty at cognitive HOTS level. So, based on the results of the study need to develop a compiling guide with HOTS type analysis for math lesson in elementary school's grade.

Keywords: LKPD, HOTS, Elementary school

INTRODUCTION ~ The industrial revolution is an era where technology and education are developing very rapidly. There are many educational challenges that arise with the times. This is in accordance with what was conveyed by Zhou, et al cited Prasetyo and Sutopo (2018: 18)

Generally, there are five big challenges; knowledge, technology, economy, social, and politic aspects. Every one must be able to follow the development of the existing era. Therefore will not be left behind and still be able to contribute in order to advance education. This era of globalization is critical thinking skills needed because when receiving information and technology must be filtered intelligently and critically. Therefore, each individual must be equipped with knowledge and skills in order to be able to analyze the information obtained in solving problems encountered.

To be able to filter the information available, the curriculum in elementary schools has some basic competencies that require students to use higher-order thinking skills.

So that it takes learning based on the ability to think at a high level in elementary school. This high-level thinking ability can be a shield and capital for students in dealing with various life problems in the future. This higher order thinking ability is called Higher Order Thinking Skills (HOTS)

One of the learning tools that can be implemented based on HOTS is the Student Worksheet. Student Worksheet here in after abbreviated as LKPD is one of the learning tools that contains a summary of learning material and is equipped with instructions in completing tasks that must be done by students, based on basic competencies that must be achieved To be based on HOTS, the given LKPD must meet the HOTS category such as the stimulus on LKPD and HOTS cognitive



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level Higher order thinking skills (HOTS) when viewed from the cognitive realm in Bloom's taxonomy are at the level of analyzing (C4), evaluating (C5) and creating (C6) (Anderson and Krathwohl, 2011)

Along with the implementation of the 2013 curriculum, information about HOTS-based LKPD has been widely shared with elementary school teachers. But in reality, there are still elementary school teachers who are of the opinion that the HOTS-based LKPD cannot be fully implemented to the maximum extent in learning in primary schools (Teti and Gullam Hamdu, 2018).

Given the importance of the HOTS-based LKPD for learning in primary schools, prior to the development of the HOTS-based LKPD it is necessary to analyze LKPDs made by teachers in primary schools. This paper aims to describe the quality of LKPD made by teachers in learning in primary schools.

METHOD

The method to be used is descriptive qualitative research. This study describes the percentage of LKPD made by HOTS

type teachers in primary schools. The instrument used was in the form of a questionnaire and assessment criteria of the HOTS type LKPD.

Questionnaire is a data collection technique that is done by giving a set of questions or written statements to respondents to answer (Sugiyono, 2015: 199). The questionnaire used in this study used an open and closed questionnaire where respondents gave answers based on their understanding. The population in this study is the entire performance of teachers in the form of teacher-made LKPD used in grade IV accredited A primary schools in the city of Palembang, which amounts to 27 schools.

The sample in this study was 30% of the total population. Samples were taken randomly, obtained 8 LKPD from 8 elementary schools. Each school is chosen by one teacher who teaches in class IV. The subject of the research was the worksheet made by the teacher who taught in class IV the flat build material of the Madya Palembang elementary school.

RESULTS AND DISCUSSION

a. Description of Respondents

Table 1. Characteristics of Respondents

No.	Respondent Data	Amount	Percentage (%)
1.	Gender		
	Male	0	0
	Female	8	100



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2.	Old teaching		
	< 9 years old	3	37,5
	10-17 years	3	37,5
	18-25 years	0	0
	26-33 years	0	0
	34-41 years	2	25
4.	Status		
	PNS	6	75
	Non PNS	2	25
5.	Teacher Certification Status		
	Certified	5	62,5
	Non certified	3	37,5

Based on the table above, it can be seen that all respondents are female teachers with a percentage of 100%. Respondents have a variety of teaching experiences, ranging from <9 years to 36 years. Teaching experience of respondents <9 years with a percentage of 37.5%, who has taught 10-17 years with a percentage of 37.5%. As for the teaching experience of 18-33 years with a percentage of 0% and for teaching experience ranging from 34 to 41 years with a percentage of 25%. The majority of the teaching experience of teachers for <9 years and 10-17 years with a percentage of 37.5%. Respondent status from the data taken shows that 75% of PNS teachers and 25% are not PNS. For respondents' certification status there are 62.5% certified and 37.5% uncertified.

b. Quality LKPD Made by Teacher HOTS Type

In this study, researchers focused on the LKPD made by HOTS Type Teachers. In this study an analysis of LKPD was made by the teacher. The instrument used by researchers in this study was to use HOTS type LKPD assessment criteria. LKPD assessment criteria are obtained from various sources and consultations with supervisors. Researchers try to analyze teacher-made LKPD by matching LKPD to each indicator of predetermined statements. After obtaining data from 8 elementary schools, researchers tried to calculate the total score obtained on each indicator. Then the researchers presented the total score obtained. After that researchers categorize the total score. The quality of LKPD made by HOTS type teachers in flat build material in primary school learning is presented in table 2 below.

Table 2. Results of Assessment of Quality of LKPD Made by Teachers of HOTS type



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No.	LKPD ASSESSMENT INDICATORS	Total Score	Percentage (%)	Category
1	Identity in LKPD	27	84,3	Very Good
2	Use language that is understood by students	28	87,5	Very Good
3	Use of appropriate punctuation in LKPD	29	90,6	Very Good
4	KD HOTS and Stimulus on LKPD	15	46,8	Enough
5	The questions presented are according to what was discussed	32	100	Very Good
6	Ease of Steps at LKPD	23	71,8	Well
7	The task in LKPD can improve the ability of students in analyzing problems	14	43,7	Enough
8	Tasks and training in LKPD can make students able to evaluate problems	11	34,4	Less
9	Assignments and exercises in LKPD can improve the ability to create students	8	25	Less
10	Contextual based problems	15	46,8	Enough
11	Suitability The combination of pictures and writing	22	68,7	Well
12	Conformity of letters in LKPD	30	93,7	Very Good

Based on the above table, it can be seen that the LKPD used already has identities such as student names, classes, absentee numbers and schools with a percentage of 84.3%. LKPD made already uses language understood by students with a percentage of 87.5% making it easier for students to understand the aims and objectives of the given LKPD. The use of appropriate punctuation in LKPD has a percentage of

90.6%. In this case, it means that the punctuation marks made in the LKPD are in accordance with their designation such as the use of exclamation points in command sentences and dots in statements.

In the given LKPD there are several LKPD that contain KD HOTS which are at the cognitive level of analyzing, evaluating



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and creating as well as a stimulus with a percentage of 46.8%. The questions presented at the LKPD are very much in accordance with what was discussed namely related to the material of flat build has a percentage of 100%. The given LKPD already includes the ease of steps for students with a percentage of 71.8%. That way students will follow the simple steps presented at the LKPD.

While the tasks in LKPD already 43.7% can improve the ability of students to analyze problems. The given LKPD already contains a level of analyzing where there are sentences and meanings such as differentiating, attributing and organizing. The level of analysis applied by teachers is limited to the differentiating category whereas for the category of organizing and attributing it is still not applied by most teachers. The results of the LKPD analysis also showed that assigning tasks and training to LKPD can make students able to evaluate problems with a percentage of 34.4%.

Some teachers have applied the evaluation level but it is not fully maximized. In accordance with the percentage obtained when analyzing LKPD that only 34.4% of teachers have applied the evaluation level to LKPD the remaining 65.6% of teachers have not

applied the evaluation level. While the percentage for tasks and exercises on LKPD can improve the ability to create students is 25%. This shows that most of the teachers have not applied the level of creating in LKPD due to difficulties in understanding what assignments can improve the ability to create students.

And the LKPD was based on contextual problems with a percentage of 46.8%. The suitability of the combination between pictures and writing already has a percentage of 68.7%. And the suitability of letters in LKPD is very good with a percentage of 93.7%. And research conducted by Teti and Gullam Hamdu (2018: 48) concerning the Development of HOTS-Based Student Worksheets Based on Bloom's Taxonomy in elementary schools which states that the use of worksheets in learning has not been maximized.

Thinking skills developed are still at the stage of knowing, understanding, and applying. While the stages of analyzing, evaluating and creating have not been too developed in the worksheet.

c. Teachers' understanding of LKPD

Data on teacher understanding of the concept of assessment in learning in primary schools is presented in the following table.

Table 3. Teachers' understanding of the LKPD HOTS Type

No.	Indicator	Statement Item	Percentage (%)
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1	The curriculum used in schools	1. Schools have used the 2013 curriculum in learning	100
2.	Application of Student Worksheets	1. I have used LKPD in Learning	100
		2. I once made my own LKPD to be done by students	100
		3. I know what HOTS is	100
		4. I have used HOTS-based LKPD in teaching and learning activities	25
		5. I often use HOTS-based LKPD	25
3.	The relationship between LKPD and Basic Competence	6. The material on LKPD is in accordance with the achievement of basic competencies of students	100
		7. LKPD used is in accordance with basic competencies based on HOTS	25
		8. LKPD used is in accordance with the ability of students	100
4.	Stimulus on the Student Worksheet	9. LKPD provided is based on contextual issues	100
		10. LKPD provided contains things that can improve students' analytical skills	75
		11. LKPD provided contains things that can improve student's evaluation ability	50
		12. LKPD provided contains things that can practice the ability to create / create students	0
5.	Teacher's response to HOTS-based LKPD	13. . I have difficulty when making LKPD	50
		14. I have obstacles when making LKPD based on HOTS	100

Based on the results of the questionnaire, it was found that already 100% of schools use the 2013 curriculum in learning. 100% of respondents said they had used and made their own LKPD in learning. And

100% of respondents already know what HOTS is. 25% of respondents stated that they have and often use HOTS-based LKPD in learning. Already 100% of material in LKPD is in accordance with the



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achievement of basic competencies of students. 25% of LKPD used are in accordance with basic competencies based on HOTS. And already 100% LKPD is used according to the ability of students. 100% of material in LKPD is in accordance with the achievement of basic competencies and abilities of students. 25% of LKPD used are in accordance with basic competencies based on HOTS. Already 100% of LKPD provided is based on contextual issues. While 75% of LKPD provided can improve students' analytical skills. And as much as 50% of LKPD provided contains things that can improve students' evaluation abilities

As for the LKPD that is given contains things that can train the ability to create / create students has a percentage of 25%. The percentage for respondents who experienced difficulties when making LKPD was 50% while respondents who had

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obstacles when making a LKPD based on HOTS had a percentage of 100%. This shows that most teachers have difficulty when making LKPD HOTS type so that its implementation is still not optimal.

CONCLUSION

Based on the results of the research that has been done, it can be concluded that the teacher's understanding of the HOTS LKPD primary school in the city of Palembang is quite good. But the application of the HOTS type LKPD that was given was still lacking. Because some teachers have difficulty at the cognitive level of HOTS while for the stimulus section the teacher's understanding is good. Based on the results of this study, it is necessary to develop an alloy to create a HOTS-based LKPD for learning in elementary schools.

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