

Object Analysis of Multiple Choice Writing Test to Know Students' Understanding

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ABSTRACT

This study aims to determine the understanding of students on thematic subject matter grade 1 theme 1 sub theme 3. This research is a form of item analysis using the form of multiple choice written tests packaged in daily tests. This research uses descriptive research quantitative approach. The subject of this research is grade 1 Madrasah Ibtidaiyah Negeri 1 Jember. This research analyzes the items by paying attention to: 1) Analysis of Problem Difficulty Level and 2) Analysis of Learning Completeness. From the above analysis it was found that of the 10 questions that had been given there were 5 easy questions, 4 medium questions and 1 difficult question. In addition, in this study there was 74% percentage of overall learning completeness. So it can be concluded that grade 1 students of Madrasah Ibtidaiyah Negeri 1 Jember understand students quite well in thematic subjects theme 1 (myself) sub theme 3.

Keywords: Problem Item Analysis, Problem Difficulty Level, Learning Completeness, Student Understanding

INTRODUCTION

The 2013 curriculum links and implements indicators to achieve the core competencies of spiritual attitudes, social attitudes, knowledge and skills that students will acquire (Junaidin et al., 2022; Maba & Mantra, 2018; Warman et al., 2021). As the curriculum demands, of course at the end of learning, teachers need to assess students. An overview of learning evaluation conditions can show the quality of human resources as seen from student learning achievements. Therefore, the term assessment emerged. Assessment or assessment is used as a measuring tool for the level of learning success, and the achievement of learning objectives, according to Bloom's taxonomy category. Bloom's taxonomy consists of low-level thinking skills to high-level thinking which includes: 1) remembering; 2) understanding; 3) applying; 4) analyzing; 5) evaluating; 6) creating (Adams, 2015; Thompson et al., 2008; Wellington, 2020).

One of the assessments that need to be developed is knowledge competency. Knowledge assessment is an assessment to measure students' abilities which include factual, conceptual, procedural, and metacognitive knowledge as well as low to high level thinking skills (Mattheos et al., 2009; Pertiwi et al., 2019). According to Permendikbud RI No. 23 of 2016 regarding knowledge assessment techniques and instruments, namely Educators assess knowledge competencies through written tests, oral tests, and assignments. The explanation is as follows: (1) Written test instruments in the form of multiple choice questions, stuffing, short answers, right-false, matching, and descriptions. The description instrument is equipped with scoring guidelines; (2) Oral test instruments in the form of a list of questions; and (3) Assignment instruments in the form of homework and / or projects that are done individually or in groups according to the characteristics of the task.

Of the three forms of knowledge competency assessment, written tests are one form of tests that are often carried out by teachers in Indonesia to determine the understanding of students. Written tests are generally divided into 2 types, namely Subjective Tests and Objective Tests. This subjective test is in the form of an essay (description). Students usually have to make broad answers by remembering specific information to analyze a problem area, propose a meaningful solution to a problem by gathering supporting information or discuss the pros and cons of broader and open issues like this can be designed to assess more complex concepts. While this Objective Test consists of items that can be answered by choosing one of several possibilities paired with each item in the form of certain words or symbols. Objective test forms are multiple choice, matching tests and true-false tests.

The form of written tests is often used in knowledge assessment in Indonesia. In fact, in the past since the National Exam (UN) and until now replaced by the Minimum Competency Assessment (AKM), multiple choice questions are one of the favorite forms used in Indonesia. This cannot be denied in daily tests, even this form of multiple choice questions is used.

Madrasah Ibtidaiyah Negeri 1 Jember is one of those who use multiple choice questions during daily tests. This is used to determine the understanding of grade 1 students of thematic subjects theme 1 (Myself) Sub Theme 3. Of course, each student has a different understanding of the material given by the teacher. Therefore, the teacher makes questions to find out the understanding of students. In this case, Mrs. Ina as a grade 1 teacher provides a multiple choice evaluation with a total of 10 questions. In making this question, of course, by paying attention to the steps of developing a written test instrument.

In developing written test instruments according to Djemari Mardapi, one of the developments is analyzing test items. This analysis can be done after the teacher gives questions and is done by students. This is done by the teacher to determine the understanding of thematic material theme 1 Sub Theme 3. After students have answered the

questions given by the teacher, the teacher can analyze each item. This can be known by calculating the correct answers of students in each item. From that calculation later, the level of difficulty in each item will be known. This can be calculated in the following way:

p each item = (the number who answered correctly to the test question)/(number of participants)

From the level of difficulty that has been described, the teacher will later know the understanding of the material of the students where the teacher can find out which questions are considered difficult, medium and easy so that later the teacher can become evaluation material.

After knowing the level of difficulty of the question, of course, as a teacher, you also have to calculate how many students' learning completeness in order to analyze which students understand or do not understand the theme 1 (myself) sub-theme 3 material in a way:

$$TB = \frac{\sum S \geq 75}{n} \times 100\%$$

Description:

TB = Learning Completeness

$\sum S \geq 75$ = Number of students who completed more than equal to 75

n = Number of students

Therefore, this research examines "Analysis of Multiple Choice Written Test Items to Determine the Understanding of Grade 1 Learners of Thematic Subjects at Madrasah Ibtidaiyah Negeri 1 Jember."

METHOD

This research uses descriptive research methods with a quantitative approach. According to Sudjana and Ibrahim descriptive research is "research that seeks to describe a symptom, event, event that occurs at the present time". For a quantitative approach explained by Arikunto that the approach uses quantitative because it uses numbers, starting from data collection, interpretation of the data, and the appearance of the results..(Jayusman & Shavab, 2020, p. 15)

Based on the above understanding, the researcher uses a descriptive quantitative approach because in presenting the data there will be a collection of numbers and the numbers or data obtained will be described. In this research activity, the subjects used were first grade students of Madrasah Ibtidaiyah Negeri 1 Jember, namely class I (one) which amounted to 17 students. This item analysis research is used to determine the extent of students' understanding of Theme 1 (Myself) Sub Theme 3 Learning 1.

RESULT AND DISCUSSION

The research aims to find out how much students understand on theme 1 (Myself) Sub Theme 3 Learning 1. This research data was obtained using a written test during the Daily Review to grade I students at Madrasah Ibtidaiyah Negeri 1 Jember. The form of the written test is Multiple Choice with a total of 10 questions. After students have answered the daily test questions, these 10 items are analyzed. The data that has been obtained, as follows:

HASIL ULANGAN HARIAN												
Mata Pelajaran	:	Tematik Tema 1										
Tahun Pelajaran	:	2021/20022										
Kelas	:	I					Peserta tes	:	17	Siswa		
Banyak soal	:	10 Butir					KKM	:	75			
A. TABEL DATA												
No Urut	Nama siswa	Skor yang diperoleh										
		1	2	3	4	5	6	7	8	9	10	Jml
		1	1	1	1	1	1	1	1	1	1	1
1	A	1	1	0	1	1	1	0	1	1	1	8
2	B	1	1	0	1	1	0	1	1	1	1	8
3	C	1	0	1	1	1	1	0	1	1	1	8
4	D	1	1	1	1	1	0	1	1	1	1	9
5	E	1	1	0	0	1	1	1	0	1	1	7
6	F	1	1	0	0	1	0	0	1	0	1	5
7	G	1	1	0	1	1	0	1	1	1	1	8
8	H	1	1	1	1	0	0	1	1	1	1	8
9	I	0	1	0	1	1	0	1	1	0	1	6
10	J	1	1	1	1	1	0	1	1	1	1	9
11	K	1	1	1	0	1	1	1	1	0	1	9
12	L	1	1	1	0	1	0	1	0	1	1	7
13	M	1	1	1	0	0	0	0	1	1	1	6
14	N	0	1	1	0	1	0	1	1	0	1	6
15	O	1	1	1	1	1	0	0	1	1	1	8
16	P	1	1	0	1	0	0	0	1	1	0	5
17	Q	1	1	0	1	1	1	1	1	0	1	8
Jumlah Skor		15	16	9	11	14	5	11	15	12	16	125

From the table above, it can be concluded that question number 1 has 15 children who answered correctly, question number 2 has 16 children who answered correctly, question number 3 has 9 children, number 4 has 11 children, number 5 has 14 children, number 6 has 5 children, number 7 has 11 children, number 8 has 15 children, number 9 has 12 children and number 10 has 16 children. From this we can understand which questions are not understood by students. But to analyze further, from the results of the daily tests of grade 1 students at Madrasah Ibtidaiyah Negeri 1 Jember, it must be analyzed the level of difficulty of the questions that have been made by grade 1 teachers. In this case, the researcher gets the following data:

TINGKAT KESUKARAN SOAL									
NOMOR SOAL									
1	2	3	4	5	6	7	8	9	10
0,882	0,941	0,529	0,647	0,824	0,294	0,647	0,882	0,706	0,941

Difficulty index: (Dewi et al., 2019, p. 17)

Range of Difficulty Levels	Category of Difficulty Level
0,00-0,32	Difficult
0,33-0,66	Medium
0,67-1,00	Easy

From the analysis of the level of difficulty it is concluded from the calculation of the level of difficulty that questions number 1, 2, 5, 8 and 10 are included in the easy category, while questions number 3, 4, 7, and 9 are included in the medium category and for question number 6 is included in the difficult category. So from the classification of this question, the teacher can later evaluate this multiple choice written test instrument so that the understanding and learning completeness of students is as expected and even higher the level of learning completeness of grade 1 students in the future.

After analyzing the level of difficulty of the items, the researcher analyzed the level of difficulty of the questions, to find out the understanding of grade 1 students at Madrasah Ibtidaiyah Negeri 1 Jember, then the researcher analyzed the level of learning completeness with the following results:

ANALISIS HASIL ULANGAN HARIAN																
Mata Pelajaran		: Tematik Tema 1					Banyak soal					: 10		Butir		
Tahun Pelajaran		: 2021/20022					Banyak Peserta tes					: 17		Siswa		
Kelas		: I					KKM					: 70				
A. TABEL DATA																
No Urut	Nama siswa	Skor yang diperoleh											% Ketercapaian	Ketuntasan Ya/Tidak		
		1	2	3	4	5	6	7	8	9	10	Jml				
1	A	1	1	0	1	1	1	0	1	1	1	8	80	Ya		
2	B	1	1	0	1	1	0	1	1	1	1	8	80	Ya		
3	C	1	0	1	1	1	1	0	1	1	1	8	80	Ya		
4	D	1	1	1	1	1	0	1	1	1	1	9	90	Ya		
5	E	1	1	0	0	1	1	1	0	1	1	7	70	Ya		
6	F	1	1	0	0	1	0	0	1	0	1	5	50	Tidak		
7	G	1	1	0	1	1	0	1	1	1	1	8	80	Ya		
8	H	1	1	1	1	0	0	1	1	1	1	8	80	Ya		
9	I	0	1	0	1	1	0	1	1	0	1	6	60	Tidak		
10	J	1	1	1	1	1	0	1	1	1	1	9	90	Ya		
11	K	1	1	1	0	1	1	1	1	1	1	9	90	Ya		
12	L	1	1	1	0	1	0	1	0	1	1	7	70	Ya		
13	M	1	1	1	0	0	0	0	1	1	1	6	60	Tidak		
14	N	0	1	1	0	1	0	1	1	0	1	6	60	Tidak		
15	O	1	1	1	1	1	0	0	1	1	1	8	80	Ya		
16	P	1	1	0	1	0	0	0	1	1	0	5	50	Tidak		
17	Q	1	1	0	1	1	1	1	1	0	1	8	80	Ya		
Jumlah Skor		15	16	9	11	14	5	11	15	13	16	125				
Jumlah skor maksim		17	17	17	17	17	17	17	17	17	17	170				
% Skor tercapai		88	94	53	65	82	29	65	88	76	94	74				
Siswa tuntas belajar		15	16	9	11	14	5	11	15	13	16	13				
% siswa tuntas bela		88	94	53	65	82	29	65	88	76	94	74				

From the 17 students who took the theme 1 (myself) sub-theme 3 daily test, there were 5 students who did not reach the KKM. This is because 5 students get a score of less than 70 and 12 students are declared to have reached the target the teacher wants. If the analysis of the results of this daily test is presented in the overall learning completeness, then 74% of students who complete learning in theme 1 (myself) sub-theme 3. So, it can be concluded that grade 1 students of Madrasah Ibtidaiyah Negeri 1 Jember understand thematic subjects theme 1 (myself) sub-theme 3 sufficiently.

CONCLUSION

Based on the above research, the conclusions obtained are

1. The results of the analysis of the level of difficulty there are 10 questions included in the classification of easy questions, 4 questions classified as medium questions, and 1 problem classification of difficult questions in the analysis of daily tests of thematic subjects theme 1 sub theme 3 Class 1 at Madrasah Ibtidaiyah Negeri 1 Jember.
2. The results of the analysis of learning completeness, there is 74% percentage of the overall learning completeness of grade 1 students of Madrasah Ibtidaiyah Negeri 1 Jember. It can be said that grade 1 students of Madrasah Ibtidaiyah Negeri 1 Jember understand thematic subjects theme 1 (myself) sub theme 3.

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