

Analysis of Students' Ability to Solve HOTS-Based Basic Indonesian

Yuniar Ayu Pratiwi¹, Rahayu Condro Murti², Aninditya Sri Nugraheni³

¹ Universitas Negeri Yogyakarta, Indonesia; pratiwiyuniarayu@gmail.com

² Universitas Negeri Yogyakarta, Indonesia; rahayu_cm@uny.ac.id

³ Universitas Islam Negeri Sunan Kalijaga Yogyakarta, Indonesia; anin.suka@gmail.com

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ABSTRACT

The study aims to measure and determine students' thinking skills in solving basic Indonesian questions based on HOTS (Higher Order Thinking Skills). This research uses a descriptive qualitative method with a content analysis technique. The instrument uses interviews and HOTS-based multiple-choice test questions. The questions given are 6 (six) questions based on indicators of higher-order thinking questions, including the levels of analysis, evaluation, and creation. The study results show that higher-order thinking skills are achieved with a percentage of up to 86.66% in the excellent/high category. The number of students at the level of C4 (Analysis) of the two questions numbered 1 and 2 reached 73% and 95%, C5 (Evaluation) 53% and 48%, and C6 (Creation) 70% and 95%. Meanwhile, from the results of interviews that students have submitted regarding the questions that have been given, it is stated that students are not able to apply reasoning competence easily and interpret and conclude from these questions. It can be concluded that students of UIN Sunan Kalijaga of the Madrasah Ibtidaiyah Teacher Education Study Program (PGMI) class B semester 2 for the 2021/2022 academic year have been qualified in high-level thinking but need to be improved, especially at the C5 levels

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Corresponding Author:

Yuniar Ayu Pratiwi

Universitas Negeri Yogyakarta, Indonesia; pratiwiyuniarayu@gmail.com

1. INTRODUCTION

Today learning and assessment oriented to higher-order thinking skills is one way that can be done to advance and develop the quality of education and produce graduates who are qualified, competent, and have a high fighting spirit. This was done as a form of a government effort to follow up on improvements from Indonesia's still low ranking in the Program for International Student Assessment (PISA) compared to other countries. The field of primary education stated that the Program for International Student Assessment (PISA) in 2015 determined that Indonesia was one of

the countries where scientific literacy and high-order thinking skills (HOTS) were still at a low level. (Pratwi, 2019). Participating in the PISA and TIMS events is one way to measure the extent of educational achievement in a country. Of course, to include the nation's children, it is necessary to have the skill to think at a high level. Setiawan (Kurniati et al., 2016) stated that students must work on several questions with more systematic, critical and creative skills at the PISA event. Therefore, the Indonesian government is trying as much as possible to increase further the credibility of the younger generation, one of which is by implementing HOTS (Higher Order Thinking Skills) based learning and assessment.

Suyomukti inside(Aji, 2020)stated that higher-order thinking skills are a person's thinking process that involves high cognitive aspects that require a person to build a problem, situation, or event to make an assessment and conclusion. Newman and Wehlage stated that students who can think at a high level would easily be able to express their ideas, solve problems well, reason, and be critical, creative, and innovative so that they have excellent competitiveness and fighting power. The teacher has an essential role in improving students' abilities in terms of knowledge and skills. One of the teacher's efforts to develop students to become more competent, especially in critical thinking skills, is to provide an assessment in the form of a HOTS-based test. HOTS-based questions are proven to improve students' skills in thinking, reflection, reasoning, acting, and so on.(Yuliandini et al., 2019, p. 39). The HOTS questions are a tool or instrument to measure students' abilities, especially in higher-order thinking. The teacher assesses students' skills from all aspects, not only by memorizing or remembering, but it is expected that students can develop and express their ideas well(Intan et al., 2020, p. 7). Therefore, giving HOTS-based questions will encourage students to learn and develop their abilities.

According to Saputra (Wahyuningsih et al., 2018, p. 228), High-order thinking or HOTS (High Order Thinking Skills) becomes an activity in developing and establishing something that goes through a high-order thinking process in various concepts, including the learning taxonomy which consists of Bloom's Taxonomy, problem-solving methods and High Order Thinking Skills assessments known from the concept of Benjamin S. Bloom in his book Taxonomy of Educational Objectives: The Classification of Educational Goals (1956) which classifies into several levels including knowledge, understanding, Application, analysis, synthesis, and evaluation.

Lorin Anderson, David Karthwohl, et al. in 2001 (Gunawan & Paluti, 2017) improved Bloom's cognitive domain by remembering, understanding, and applying, which is entering into low-level skills known as LOTs (Lower Order of Thinking Skills). For high levels of HOTS (Higher Order Thinking Skills), there is analyzing (analyzing), evaluating (evaluating), and creating (creating).

Table 1. Basic Concepts of Higher Order Thinking Skills (Dinni, 2018)

Bloom Original Cognitive Taxonomy (1956)	Anderson & Revised Bloom's Taxonomy Krathwohl (2001)	Information
Knowledge(knowledge)	<i>Remember</i> (remember)	<i>Lower Order Thinking Skills</i>
Comprehensive (understanding)	Understand	
Application (Application)	(understand) Apply (apply)	<i>Higher Order Thinking Skills</i>
Analysis(analysis)	<i>Analyze</i> (analyze)	
Synthesis (synthesis)	Evaluate (evaluate)	
Evaluation (Evaluation)	Create (create)	

The ability to think at a higher level is the main foundation and provision for the younger generation to face the enormity of the 4.0 era filled with competition and challenges. Students, especially prospective elementary school teacher students, are essential in advancing education. Achieving the expected learning objectives, of course, cannot be separated from the presence of a teacher. Therefore, it is necessary to know the high-level thinking profile of a teacher or prospective teacher to improve their competence so that they can guide their students to become quality graduates in the future.

The same thing happened to Madrasah Ibtidaiyah Teacher Education students who were prospective elementary/madrasah primary school teachers who were given demands to have and develop their competencies. Introductory Indonesian Language course, one of the courses in the Tarbiyah and Teacher Training study program at Yogyakarta State Islamic University, with a weight of four (4) credits. Based on the curriculum prepared by lecturers from the PGMI study program UIN Sunan Kalijaga, this course aims to provide insight to students as prospective MI teachers so that they have an integrated and interconnected logic flow with other sciences. Thus, this study aims to determine students' high-level thinking skills in solving B.Indonesia questions.

Arikunto inside (Rif et al., 2018) states that assessment is an activity to measure the achievement of student learning outcomes so that it can determine how far students have achieved predetermined learning objectives; by conducting an assessment, the teacher will know what things need to be improved or improved. Furthermore, according to Kusaeri and Suprananto (Gibta et al., 2020, p. 25), assessment activities have an essential role in learning, not only as a measuring tool for learning achievement but can function as one of the tools used to make decisions or obtain information related to students. It is hoped that this assessment/assessment activity will help teachers diagnose student skills and make it easier for students to improve higher-order thinking skills. Thus, this study aims to determine students' high-level thinking skills in solving B.Indonesia questions.

Research conducted (Sofyan, 2019) regarding implementing HOTS in the 2013 Curriculum for fifth-grade MI Adabiyah 2 Palembang students. Sofyan explained that HOTS-based learning and evaluation could help students answer global problems to adapt to the future and the wider world. Furthermore, in research conducted by Novianti and Mayasar (Mayasari, 2022) with the title The Effectiveness of HOTS-based Student Worksheets on Students' Critical Thinking Ability at Sumbawa State High School. Based on research conducted by Aji (Aji, 2020) with the title Analysis of Higher Order Thinking Skills (HOTS) for Madrasah Ibtidaiyah Students in Solving Indonesian and Sutami Language Problems (Sutami, 2020) with the title Development of Higher Order Thinking Skills (HOTS) Assessment Instruments in Indonesian Language Subjects for High School and Vocational High Schools, by conducting assessments using HOTS-based instruments it has shown positive results where students have shown a more creative and courageous attitude. The effectiveness of this question makes students aware and prefers to apply HOTS questions to be used as an instrument for assessing learning outcomes.

2. METHODS

Data analysis used by researchers is quantitative and quantitative. Quantitative data is obtained from the results of questions that have been worked on by students, while qualitative data is obtained from interviews with students. The data is analyzed and described/described in the form of words (Sa'idah et al., 2018, p. 46). The results of student work tests obtained from solving HOTS-based Indonesian questions are intended to determine the profile of students' high-level thinking skills.

The sampling technique uses a saturated sampling technique by including the entire population, namely class B PGMI students in semester 2 of the 2021/2022 academic year as research subjects. The research was conducted on 40 students in the PGMI Study Program, Faculty of Tarbiyah and Teacher Training, UIN Sunan Kalijaga, Yogyakarta. Data collection techniques and

instruments used in this study were tests and interviews. Students who are research subjects will receive B. Indonesia questions in the form of a Google form totaling 6 questions of multiple choice type and some questions as a form of an interview. The learning materials tested included 1) news text elements, 2) story intrinsic elements, 3) pantun paraphrases, 4) paragraphs, 5) spelling, and 6) fairy tales. Data analysis was carried out using indicators of higher-order thinking questions (HOTS) consisting of analysis (C3), evaluation (C4), and creating (C6) levels.

Table 2. HOTS categorization

Ability Level	Value Range
Very high	100 N ≤ 87
Tall	75N ≤ 87
Enough	65 N ≤ 75
Low	50 N ≤ 65
Very low	X < 50

(Pradani & Nafi'an, 2019)

3. FINDINGS AND DISCUSSION

Based on the analysis obtained by the researcher from the results of students' scores in solving HOTS-based questions on B. Indonesia. The question is presented, totaling 6 questions of multiple choice type with indicators of higher order thinking questions (HOTS) consisting of analysis (C3), evaluation (C4), and creating (C6) levels. The ability to think at a higher level reaches 86.66% and is in the excellent/high category. Some students at level C4 (Analysis) from two questions number 1 and 2 reached 73% and 95%, C5 (Evaluation) 53% and 48%, and C6 (Creation) 70% and 95%.

Discussion

Problem 1 being tested is material about news texts and is included in the realm of analysis (C4). In this problem, students are asked first to read the text fragment that has been presented and analyze it, then choose which elements are appropriate to use. A total of 29 out of 40 students could answer correctly, with a percentage of 73%, and were in the sufficient category, and 11 students could not answer correctly. Question 2, is still included in the realm of analysis (C4), and the material provided is about analyzing and describing the character of the characters in the story fragments. In this problem, the researcher presents a fragment of the story and directs students to read it first, then is asked to determine and describe the character of the characters in the story.

Question 3 that is given enters the realm of evaluating (C5), and the material is related to rhymes. First, students read the rhymes provided, and then they are asked to choose an answer in a prose text containing paraphrases of the rhyme. Twenty-one students could answer correctly with a percentage of 53% and were in the less/low category, so it could be said that almost some students had not been able to work on this type of C5 question. Question 4 is material about paragraphs and is included in evaluating (C5). In this problem, students analyze the given paragraphs and are then asked to criticize and determine the reasons for the errors in the words/sentences. As many as 19 students were able to answer correctly. The percentage was 48% and fell into the less/low category,

so it can be said that almost some students had not been able to apply the C5 evaluation concept contained in the question.

Question 5 given to students is related to material on writing pronouns in PUEBI (General Guidelines for Indonesian Spelling). In this question, students are asked to correct pronouns that are not quite right in writing closing sentences in letters. A total of 28 students answered correctly. The percentage is as much as 70% and is in the less category. Question 6, tested on students, was material related to narrative essays. After students understand the commands addressed in the questions, they are then asked to create fantasy stories based on the illustrations that have been presented. A total of 38 students can answer correctly. The percentage is 95% and is in the very, very high/good category.

Based on the question with the lowest score, this problem was occupied by question number 3. Namely, only 21 out of 40 students could answer the question correctly, with a percentage of 53%. In question number 4, there were 19 who were able to answer correctly, with a percentage of 48%. Both of them entered in less/deficient category. This was reinforced by statements from the results of interviews with students stating that questions 3 and 4 were quite challenging to work on. In question number 3, material about paraphrasing a pantun, students experience difficulties in reasoning, concluding, and interpreting because of a lack of understanding of some of the vocabulary found in the rhyme. Whereas in question number 4, which is related to material assessing the choice of words in paragraphs, students find it difficult to find errors in sentences contained in paragraphs. According to Nurwahidah (Purwanti, 2020, p. 98), students are not familiar with HOTS-type questions, so it tends to be difficult to solve them correctly. This is also experienced by the author Megawati in (Megawati et al., 2019, p. 22) previous research that students often do not have their own strategy when faced with questions the teacher gives.

In addition, there is also a reasonably close relationship with the inability of students to analyze and evaluate questions, namely due to the absence of interest or willingness in the students themselves, which causes students not to focus so that the questions are done carelessly. (Miskiyyah et al., 2021, p. 27). So the teacher's role is always to supervise, guide, and give understanding to their students.

Based on the analysis above, it can be obtained from the 6 questions given to some PGMI students that in solving questions with type C4 (analyzing), they are in the sound and excellent categories. The questions with type C5 (evaluating) are in a low category, which indicates that some students still have not mastered the ability to evaluate. As for the types of creative questions, students have been able to solve them properly and correctly. The overall average score for questions from the C4-C6 category is 86.66%, which means it is in a suitable category.

The following is the distribution of Indonesian HOTS-based questions, which are described in tables:

Table 3. Distribution of HOTS questions

No	The form of the question in the problem	No Question	Cognitive Level
1	Summarize and analyze the news elements from the contents of the news text	1	C4
2	Analyze the character traits in the story fragment	2	C4
3	Changing into another form of text based on the verses of the pantun	3	C5
4	Analyze the choice of words/sentences in paragraphs	4	C5
5	Analyze errors in the use of spelling	5	C4
6	Make story text based on mind maps	6	C6

4. CONCLUSION

Based on the results of the analysis in the discussion, as a whole, the students of UIN Sunan Kalihjaga PGMI Study Program Class B semester 2 of the 2021/2022 academic year are qualified in higher-order thinking. However, some things need to be improved, especially at the C5 level, and the need for repeated practice by giving questions with a specific type of question.

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