

IMPLEMENTATION OF HIGHER ORDER THINKING SKILLS IN ISLAMIC RELIGIOUS EDUCATION SUBJECTS ON THE CLASS X SMK ENTREPRENEUR CIMAHI CITY

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Abstract

The Indonesian government is currently trying to improve the quality of education through curriculum development, including the development of an assessment system. One of the characteristics of the assessment model that is widely used is the High Order Thinking Skills (HOTS) assessment model. This study aims to describe the implementation of HOTS questions in Islamic Religious Education subjects in class X SMK Wiraswasta Cimahi city based on thinking skills according to Bloom's taxonomy. The approach and method in this study used descriptive qualitative data from interviews, distributing research questionnaires, and document studies. The data analysis technique was carried out with qualitative analysis techniques which included data collection, data reduction, data presentation, and drawing conclusions. The data validity technique uses data triangulation techniques. The results showed that the implementation of the questions (HOTS) went well and the results showed that the HOTS questions that we made contained several categories based on the level of difficulty of students answering the questions, namely: 8 difficult questions, 6 medium questions and 1 easy question.

Keywords: Higher Order Thinking Skills, Islamic education, Bloom's Taxonomy

INTRODUCTION

Efforts to improve the quality of education in Indonesia continue to be carried out by the Government. One of the agendas that continues to be carried out is curriculum development, including the development of an assessment system. The assessment model used in the 2013 curriculum has adopted international standard assessment models. A feature of such a scoring model is that it places more emphasis on higher-order thinking ability (HOTS). This assessment concept not only focuses on the educational goals that have been set, but further leads to the formation of the ability of students independently to

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think critically, creatively, and innovatively and be able to solve more complex problems. (Ahmad & Sukiman, 2019)

The HOTS characteristic assessment model has been widely developed and applied in formal schools from elementary, secondary and tertiary levels. The development of an assessment model characterized by HOTS is also one of the focuses of the agenda of the Directorate of Islamic Religious Education at the Ministry of Religion in the implementation of the Islamic Religious Education (PAI) assessment in schools and madrasahs. This can be seen from the many HOTS-based question preparation workshops held by the Ministry of Religious Affairs in various regions. This assessment model is expected to be able to improve the quality of question items as test instruments used by PAI teachers. So far, PAI assessments tend to only emphasize the aspects of the ability to remember, restate or refer without processing, all three of which are still among the lowest levels of thinking ability according to Bloom's taxonomy.

Improving the quality of question instruments in PAI assessment is an important and necessary thing to do. This is in line with efforts to develop the competence of students to not only understand and know a form of knowledge or information, but further than that, students are expected to have analytical and problem-solving skills on various existing problems.

Research on HOTS category questions has been done by many previous researchers but almost all of these studies are conducted within the scope of formal schools and in general subjects such as mathematics, science, physics, biology, and social studies. Some of the researchers who examined the HOTS category included: Research on the development strategy of *Higher Order Thinking Skills* in the 2013 curriculum, HOTS-based learning development, HOTS analysis on grade V objective questions at SD Negeri 7 Ciamis, and research on HOTS on the final exam questions of grade 6 students in the Tazakka Batang modern cottage. Meanwhile, research on the application of the HOTS category in the field of Islamic Religious Education, especially in Islamic boarding schools, is still rarely carried out. (Fanani, 2018) (Fanani & Kusmaharti, 2018) (Yuniar et al, 2015)

This study aims to find out how the implementation of higher order thinking skills in Islamic Religious Education subjects in class X SMK Wiraswasta Cimahi city in the 2013 curriculum and to describe the extent to which higher order thinking skills can be

understood by students, describe the results of research on the implementation of *higher order thinking skills* in Islamic Religious Education subjects.

METHOD

The proximity and method in this study uses descriptive qualitative. The respondents of the study were class X students of SMK Wiraswasta Kota Cimahi. The data sources used are primary data sources which include person, place, paper, and secondary data sources. Research data collection techniques were carried out through interviews by providing questionnaires through google forms, and document studies. The informants in this interview were the principal, vice principal for curriculum, vice principal for student affairs, subject teachers, head of the education and teaching sub-section of administration, school committee and students related to the research. Data analysis techniques are carried out with qualitative analysis techniques which include data reduction, data presentation, and drawing conclusions. Meanwhile, the data validity technique uses data triangulation.

RESULTS AND DISCUSSION

Result

Higher Order Thinking Skill (HOTS) is a thought process that requires students to manipulate existing information and ideas in a certain way that gives them new understanding and implications. For example, when students combine facts and ideas in the process of synthesizing, making generalizations, explaining, performing hypotheses and analysis, until the student comes to a conclusion. (Pratiwi & Hapsari, 2020)

HOTS covers aspects of critical thinking ability, creative thinking ability, and problem-solving ability. Critical thinking is the ability to analyze, create and use criteria objectively, and evaluate data. Creative thinking is the ability to use complex thinking structures so as to bring out new and original ideas. The ability to solve problems is the ability to think complexly and deeply to solve a problem. Bloom's taxonomy is the basis for higher-order thinking. The basis of this thinking is that some types of learning require more cognition processes than others, but have more general benefits. Indicators for measuring higher-order thinking skills include analyzing, evaluating, creating. (Yuniar et al, 2015)

There are several guidelines in writing questions that require high-level thinking, namely the material to be asked is measured by behavior according to Bloom's cognitive realm, namely analyzing, evaluating, and creating. Then, in order for the written question items to demand high-level thinking, then each question item is always given a basic question (stimulus) in the form of sources / reading materials as information such as: reading texts, paragraphs, drama texts, fragments of novels / stories / fairy tales, poems, cases, pictures, graphs, photos, formulas, tables, lists of words / symbols, examples, maps, films, or sound recordings.

The Cognitive Realm in Bloom's Taxonomy, The cognitive realm is a realm that includes mental activity (the brain). Many theories that discuss this cognitive ability include the theory developed by Benjamin S. Bloom, et al. which was later outlined in their book entitled "*Taxonomy of Educational Objectives, Handbook 1: Cognitive Domain*" which was first published in 1956. The cognitive realm, is the target of learning outcomes related to memory about knowledge, skills, and intellectual abilities.

According to Effendi the cognitive realm is divided into six levels or levels of thought processes. The six levels start from the lowest to the highest level, namely knowledge, comprehension, application, analysis, synthesis and evaluation. Bloom's taxonomy of the cognitive realm of the old edition was further revised by Anderson and Krathwohl in 2001 which was outlined in a book entitled "A (Effendi, 2017) *Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*" published in 2001. At first Bloom used nouns in formulating the levels of cognitive processes, namely knowledge, understanding, application, analysis, synthesis, and evaluation. After undergoing revision and refinement to remember (C1), understand (C2), apply (C3), analyze (C4), evaluate (C5), and create (C6). (Basuki and Hariyanto, 2016: 12)

In the dimension of knowledge there are four types of knowledge contained in Bloom's taxonomy, namely:

- a. Factual knowledge, that is, the basic elements that students must know in order to study one discipline or to solve problems in that discipline.
- b. Conceptual knowledge, that is, the relationships between elements in a large structure that allows the elements to function together.
- c. Procedural knowledge, namely, how to do things, practice research methods, and criteria for using skills, algorithms, techniques, and methods.

- d. Metacognitive knowledge, that is, knowledge of cognition in general, awareness and knowledge of one's own cognition.

The four dimensions of knowledge and their respective descriptions can be described in Table 1 below:

Table 1. Dimensions of Knowledge

Types of Knowledge	Sub Types
Factual Knowledge	- Knowledge of terminology. - Knowledge of the details of specific elements.
Conceptual Knowledge	- Knowledge of classifications and categories. - Knowledge of principles and generalizations. - Knowledge of theories, models and structures.
Procedural Knowledge	- Knowledge of skills in a particular field and algorithms. - Knowledge of techniques and methods in a particular field. - Knowledge of the criteria for determining when to use using appropriate procedures.
Metacognitive Knowledge	- Strategic knowledge. - Knowledge of cognitive tasks. - Self-knowledge.

The preparation of questions for the *Higher Order Thinking Skill* (HOTS) category is a high-level thinking skill (HOTS). The definition of HOTS or higher-order thinking skills cannot be separated from the classification system of learning outcomes proposed by Benjamin S. Bloom, et al. which in terms of cognitive process dimensions are divided into six levels / levels. The six levels of cognitive processes in Bloom's taxonomy, then divided into two categories, namely (Ahmad & Sukiman, 2019) *Lower order thinking skills* including thinking processes in the levels of remembering, understanding and applying; and *Higher Order Thinking Skills* which include the level of the thought process of analyzing, evaluating and creating.

Discussion

We made fifteen items of HOTS questions for Islamic Religious Education (PAI) subjects and have conducted trials on class X students at SMK Wiraswasta Cimahi. We collected the results of the answers to the students' HOTS questions. The description and detailed explanation of the research results are as follows.

Tabulation of Higher Order Thinking Skills Questions for Islamic Religious Education Subjects in Class X Students at SMK Wiraswasta Cimahi

The HOTS questions prepared are divided into several parts, namely based on the level / level of thinking (analysis and evaluation) and based on the type of stimulus (text, discourse, images, and case fragments). Table 2 shows the division of questions and the results obtained.

Based on Table 2, C4 type level/thinking level questions (analysis) have a larger percentage and a greater number of questions compared to type C5 (evaluation). While the questions based on the type of stimulus, the type of discourse and case fragments have many questions and a greater percentage compared to the types of text and images.

Table 2. Percentage of Answers Based on the Group of Questions Given

No.	Question Group	Cognitive/Stimulus Level	Number of Questions	Yield Percentage (%)
1	Thinking Level	C4 (analyzing)	12	80
2		C5 (evaluating)	3	20
Sum			15	100
1	Types of Stimuluses	Will	4	26.6
2		Discourse	5	33.3
3		Picture	1	6.6
4		Case Fragments	5	33.3
Sum			15	100

We use multiple choice question types (PG). In this study, the questions made were 15. The percentage of correct answers to each question can be seen in Table 3 below.

Table 3. Percentage of Students' Right and Wrong Answers.

Problem Number	Number of Students	True Percentage (%)	Percentage False (%)	Problem Categories
1	30	33.3	66.6	Difficult
2	30	66.6	33.3	Keep
3	30	66.6	33.3	Keep
4	30	36.6	63.3	Difficult
5	30	36.6	63.3	Difficult
6	30	63.3	36.6	Keep
7	30	33.3	66.6	Difficult

8	30	66.6	33.3	Keep
9	30	40.0	60.0	Difficult
10	30	66.6	33.3	Keep
11	30	63.3	36.6	Keep
12	30	33.3	66.6	Difficult
13	30	36.6	63.3	Difficult
14	30	73.3	26.6	Easy
15	30	33.3	66.6	Difficult

Based on Table 3, the percentage of incorrect and correct answers to each question has an up-and-down curve. It can be seen from the percentage value of the correct and false answers in the table. Question no.14 is a question that has a higher percentage of correct answers than the other 14 questions, with the number of students who answered correctly as many as 22 and answered wrong as many as 8 students out of a total of 30 students, it can also be known that for the types of questions there are several categories, namely: difficult as many as 8 pieces, medium 6 pieces and easy 1 question.

These results tend to be different from the results of research that has been carried out by Masithoh Al-Qoyyimah in his research entitled "Implementation of *higher order thinking skills* (HOST) in achieving learning outcomes of PAI class XI SMKN 3 Cilegon, Banten “ which states that the implementation of HOTS (High Order Thinking Skills) in achieving learning outcomes of PAI class XI SMKN 3 Cilegon, Banten, is said to be successful. This can be seen and proven by the achievement of the HOTS (High Order Thinking Skills) indicator and the learning outcomes of PAI class XI SMKN 3 Cilegon, Banten. In response to that we have conducted interview sessions with parties related to the research we have conducted.

Question and answer sessions (interviews) have been conducted with PAI teachers and some students who have answered the questions that have been given, according to the PAI teacher's statement, this is quite good to do to students who are in their class in order to be able to train, especially at the intellectual level. In addition to our teachers also conduct interviews with students, the results obtained from interviews with these students are as follows.

Some students say that they have learned the material contained in the questions so that they can answer the questions easily, some state that the questions are too long so that they feel out of time, tired when reading and feel confused when reading them. In this case,

it is concluded that the HOTS question is good enough to be done, but it is necessary to reconsider both in terms of time and psychological students according to the level of education that is being studied.

CONCLUSION

The implementation of *higher order thinking skills* in Islamic Religious Education subjects in class X SMK Wiraswasta Cimahi city in the 2013 curriculum went well. This can be seen from several implementation processes that are in accordance with the HOTS indicator (analyzing and evaluating). In the indicators analyzing HOTS questions at SMK Wiraswasta Cimahi, especially pai subject teachers, they have implemented HOTS to run well at the time of learning. Students' understanding of higher order thinking skills is seen from the overall results after they fill in the HOTS questions that we make is still quite low so that it is necessary to deepen the matter of HOTS to students, in this case the implementation of *higher order thinking skills* questions (HOTS) in the subject of Islamic Religious Education in class X SMK Wiraswasta cimahi city obtained the results that the HOTS questions that we made were several categories based on the level of difficulty of students answering questions, namely: difficult as many as 8 pieces, medium 6 pieces and easy 1 question. Although the implementation process is not perfect, the implementation of HOTS is carried out optimally as an effort to educate the students of SMK Wiraswasta Cimahi.

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