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Development of Islamic Religion Education (IRE) Curriculum based on Higher-Order Thinking Skills (HOTS) at SMA Islam Sabilillah Malang

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Abstract. This study was intended to describe the development of the IRE curriculum based on Higher Order Thinking Skills (HOTS). The intended curriculum was centered on development of subject teachers, which included the process of planning, implementing, and evaluating learning. In this study, the analysis was carried out on three aspects, namely lesson plans, scenarios and learning modules, as well as the design of evaluation or learning assessment. The research method used was a qualitative approach. Data collection was done through observation and interview techniques as well as documentation studies. The data that was collected was then sorted according to the needs which would then be presented and concluded. The results of this study indicated that curriculum development in HOTS-based learning planning was obtained from two things: 1) lesson plan content that was different from that stipulated by the Ministry of Education by adding components of learning objectives that were integrated with the themes in sustainable development goals. 2) in the lesson plan document, HOTS content was found in the learning contract determined by the students and the teacher. The implementation of learning took place with an independent learning approach using Discovery and Inquiry learning methods as well as Problem-Based Learning which guided students to design their learning methods and determine the results they were projected to get. In the aspect of evaluating HOTS curriculum development, there were assessments based on process, outcome, and peer-to-peer assessments and using operational verbs at levels 4, 5, and 6 or analyzing, evaluating, and creating.

Keywords: Curriculum Development; Islamic Religion Education; Higher-Order Thinking Skills

INTRODUCTION

The world of the 21st century requires several thinking skills that have to be mastered by a student. These skills are in the form of 1) league and career skills, 2) learning and innovation skills, and 3) information media and technology skills. In facing challenges from the world of education in general, and the world of Islamic education in particular, the student stands at the crossroad, between following global trends without any changes, or maintaining internal desires which are the main mission of education, namely to form whole human beings who develop their full potential as a whole (Kuswana. 2014a).

In the current curriculum structure in Indonesia, Religion Education has an important role in national education. This is represented by the content standards contained in religious education in schools, namely to increase spiritual potential and shape students to become human beings who believe and fear God Almighty and have noble characters. The values in question include ethics, manners, and morals as the embodiment of religious education. Islamic Religion Education (IRE) is no exception (Regulation of the Minister of National Education of the Republic of Indonesia 2006).

In line with the assertion from the Ministry of National Education, the purpose of IRE in public and Islamic schools is to instill in students the belief and devotion to Allah the Almighty. In addition, the goals are to develop the abilities, knowledge, attitudes, and skills of students to become experts in the Islamic religion (*mutafaqqih fiddin*) or to become Muslims who can practice the teachings of Islam in their daily lives. Students are also expected to be able to develop *akhlaqul karimah* behavior that has individual and social piety by upholding the spirit of sincerity, simplicity, independence, brotherhood among fellow Muslims, humble, tolerant, balanced, moderate, exemplary, healthy lifestyle, and love for the country (Keagamaan et al. 2012).

IRE is one of the clusters of lessons in the 2013 curriculum which adapts to existing changes. IRE subject in schools is expected to provide high-order thinking skills to students (Hidayat 2016).

Apart from that, Muhaiman also explains the characteristics of the IRE subject at school. First, the nature of IRE touches a lot of abstract metaphysical aspects and not infrequently touches on supra-rational aspects, while students at school often practice rational things. Second, it is the dedication of teachers who are starting to experience a shift in the orientation of actions that are increasingly materialist and transactional at work. In the context of learning, the weak point of Islamic religious education lies in the lack of changing cognitive religious knowledge into meaning/value, which in other words does not encourage the internalization of religious values. In addition, there is a lack of integration between religious knowledge and non-religious programs. The lack of relevance of IRE to social change means that education is still static-contextual and separate from history.

Therefore, the reconstruction of IRE learning is a necessity. This is to rebuild the broken linkage between IRE goals and the current reality. IRE in schools has two

mutually sustainable sides. IRE as an activity means an effort that is consciously designed to help a person or a group of people in developing a view of life, attitude to life, and life skills that are both natural in mental and social with Islamic inspiration. IRE as a phenomenon means an encounter between two or more people or the creation of an atmosphere whose impact is the development of a view of life that is breathed or imbued with Islamic teachings and values which is manifested in life attitudes and skills on one or several parties.

Several aspects of IRE that need to be reconstructed are the curriculum which includes vision and mission, objectives, learning, and evaluation. The curriculum which is the heart of education contains what is taught by the teacher, or what is learned by students for their development in accordance with educational goals.

The learning process which is the core of the curriculum should be developed by thinking skills related to one of the charts of brain function. The more the thinking skills are used, the easier it is to think critically. These critical thinking skills go through several stages of observing interpretation, analysis, conclusion, evaluation, explanation, and metacognition (Kuswana, 2014).

For this reason, IRE learning has to be upgraded towards Higher-Order Thinking skills, which are not only concerned with the aspects of memorizing, knowing, and practicing, but also analyzing, evaluating, and creating. If students only have the competence to memorize, know, and practice, it will be difficult for them to develop further to face the current era of disruption which has the characteristics of uncertainty, complexity, fluctuating, and ambiguity. Using HOTS, the IRE curriculum can later provide a holistic integrative religious character building (Colin Rose 1987).

The aforementioned skills are commonly referred to as Higher-Order Thinking Skills (HOTS), which is a term that has recently been referred to by experts and is considered one of the skills that need to be learned in the 21st century. Categorization of the level of cognitive or level of thinking skills was first raised by Benjamin Bloom in 1956 which was then outlined in his book Taxonomy of Educational Objective, Handbook I: the Cognitive Domain. Then fifteen years later, the idea was revised by Anderson and Krathwol to become A Taxonomy for Learning, Teaching, and Assessing; A Revision of Bloom's Taxonomy Educational Objectives. The concept of HOTS in the discussion of cognitive domains includes domains of knowledge and intellectual skills from the simple to the complex level which are arranged into levels of cognitive skills. The levels are C1 – C6 (remembering, understanding, applying, analyzing, evaluating, and creating) (Ansyar. 2015).

HOTS-based learning in IRE subjects has been implemented by several educators in Indonesia. Observations made by researchers said that some teachers applied HOTS-based learning only in the evaluation aspect, not in the realm of planning and the learning process. Some teachers experience difficulties in designing HOTS-based learning so that they only stop at the HOTS-based evaluation level or even only compose HOTS-based questions.

Departing from the results of these observations, researchers were interested in carrying out an IRE curriculum development which was expected to be able to become an innovation in escalating religious education which does not only stop at rituals and religious symbols but instead focuses on the values contained in this education which form the basis of ways of thinking, acting, and behaving in everyday life by students.

METHOD

This study was intended to find out and describe the development of the IRE curriculum based on Higher Order Thinking skills at Sabilillah Islamic High School Malang with the focus of the problem being studied was how the process of developing a HOTS-based IRE curriculum at Sabilillah Islamic High School Malang and the curriculum development modules that were applied. The approach used in this study was to use a qualitative approach. In a qualitative approach, humans act as the main data source and the research results are in the form of statements that are relevant to the actual situation. This is stated by Bogdan and Taylor that the qualitative research method is a particular tradition in social science that fundamentally depends on observing humans in their field and relating to these people in their language and their terms. A qualitative approach was chosen in this study because the researchers saw that the nature of the problem under study could develop scientifically according to the conditions in the field (Tan 2006).

The first characteristic of qualitative research is that it takes place in a natural setting. Second, the researcher acts as the main instrument or data collection tool. Third, the data analysis is done inductively. This research was written using a case study research design which was a qualitative research design involving one site and research subject (Sugiyono 2004).

This study was intended to describe empirical reality according to the phenomenon in detail and thoroughly, as well as to reveal the symptoms holistically contextually through data collection through researchers with the research object being curriculum development at Sablillah Islamic High School Malang based on Higher Order Thinking skills. It was done considering that in this high school, the development of religious learning was carried out through western learning theories and based on 21st-century learning skills.

Data analysis is the process of systematically searching for and compiling data obtained from the results of field notes, interviews, and documentation, by organizing data into categories, describing them into units, synthesizing them, compiling them into patterns, choosing which ones are important and which ones will be studied and make conclusions. The process was conducted so that it was easy to be understood by the reader and others (Sugiyono 2004).

The data analysis carried out in this study used the Miles and Hubermen models. Data analysis in this qualitative research was done during data collection and after data

collection for a certain period. At the time of documentation, researchers analyzed the documents obtained.

RESULTS & DISCUSSION

IRE at Sabilillah Islamic High School Malang is part of curriculum development in the field of religion. IRE is a compulsory subject in the existing curriculum structure at Sabilillah Islamic High School Malang. In its implementation, IRE learning integrates several aspects, one of which is a combination of modern learning with several scientific approaches and also refers to the *salaf* approach (learning the yellow book) which was held at Mahad Sabilillah Islamic High School Malang.

This implementation had an impact on the existing IRE curriculum structure in schools and also in Mahad. IRE in the curriculum of the Ministry of Education and Culture was allocated for 3 credit hours in 1 week, which was described as 1 credit hour in school learning activities and 2 credit hours in Mahad activities. In practice, IRE learning prioritizes modern learning patterns by integrating them through STREAM (Science, Technology, Religious, Engineering, Art, and Mathematics) which are also included in thematic project-based learning. The main competencies (knowledge and skills) which are then translated into Basic Competencies, referring to Permendikbud Number 37 of 2018, do not necessarily become the main reference in carrying out IRE learning. There are also several themes related to Institutional Project Based Learning which are the references.

The principle of IRE learning at Sabilillah Islamic High School Malang also pays attention to several things including having to contain elements of PAPER or the acronyms of Presenting, Analyzing, Planning, Executing, and Reporting. This is not the syntax in the implementation of learning but the values that should be contained in it. Besides that, it should also contain 8 Love (We Love) which is the basis for the development of Character Education in Sabilillah Islamic High School Malang.

IRE at Sabilillah Islamic High School Malang is part of curriculum development in the field of religion as well as a compulsory subject in the existing curriculum structure at Sabilillah Islamic High School Malang. In its implementation, IRE learning integrates several aspects, one of which is a combination of modern learning with several scientific approaches and also refers to the *salaf* approach (learning the yellow book) which was held at Mahad Sabilillah Islamic High School Malang.

These learning principles were applied in the learning process at Sabilillah Islamic High School Malang through Learning Implementation Plans, Learning Scenarios, and also assessments. IRE learning at Sabilillah Islamic High School Malang not only use lecture, discussion, and question-and-answer approaches but also developed students' critical thinking skills through PAPER-based learning and also the 8 Loves.

In addition, learning related to the Project Based Learning Theme provided flexibility for teachers in compiling and designing what material was delivered to students, including learning patterns as well as assessment in learning. IRE learning at Sabilillah Islamic High School in Malang prioritized increasing student competence in 4 ways, namely critical thinking, creative, collaborative, and also communicative aspects rather than achieving or implementing the basic competencies of these subjects.

HOTS-based learning planning curriculum development

Lesson plans were designed in the form of syllabi and lesson plans as well as learning scenarios. Sabililah Malang Islamic High School implemented a syllabus that was prepared by the relevant agencies and developed according to the characteristics of the institution. Planning was carried out by adding several indicator points for achieving competence in accordance with the competency standards of Institute graduates. In addition, the lesson plan documents were prepared in such a way according to the documents that were prepared by the state in different formats.

The lesson plan was constructed by the 2019 regulations of the Ministry of Education and Culture which had an arrangement like this.

Minister of Education	HOTS lesson plan at Sabilillah
Circular Letter No 14 of 2019	Islamic High School Malang
Learning objectives	Learning themes and topics
Steps (activities) Learning	Learning objectives
Assessment of learning	Rating Type
	Study Contract
	Scope of Media and Learning
	Resources
	Appendices

In addition to the different forms of lesson plans, the application of HOTS values in the learning implementation plan was portrayed in learning scenarios. This involves learning models that were suitable for the application of HOTS in IRE subjects, including Problem-Based Learning, Project-Based Learning, and Discovery-and-Inquiry learning.

The preparation of a complete and systematic lesson plan was important for the teacher so that learning takes place interactively, is inspiring, fun, challenging, and efficient, and can motivate students to actively participate and provide sufficient space to act creatively. (Helmawati, 2019)

In preparing HOTS-based lesson plans, the following steps needed to be considered: a) reviewing the syllabus, b) analyzing the correlation between Graduate Competency Standards, Core Competencies, and Basic Competencies in formulating indicators, learning materials, learning activities, and assessment plans according to with Basic Competency content. In the IRE subject, the activity of formulating Achievement Indicators must be the same as the Core Competencies – 1 to 4, c) determining the time allocation for each meeting, d) formulating learning objectives and relating to the theme of My Project, e) developing learning materials, f) developing learning materials, g)

determining sources and learning media, h) describing the steps in learning, as well as i) developing an assessment of learning processes and outcomes.

The lesson plan was prepared as reference material in the implementation of learning activities to ensure the achievement of competencies that needed to be mastered by students. The activities included bringing up ideas or student creativity in the learning process.

The implementation of IRE learning at Sabilillah Islamic High School focuses on the role of students as learners, no longer the teacher as a learning center. The approach taken by the teacher is a discovery learning approach. The selection of the discovery learning model is in line with the mandate of Law No. 22 of 2016 concerning the selection of learning models in the 2013 curriculum which has to encourage scientific and social behavior, as well as build curiosity (Permendikbud 2016).

The attitude or discovery model is a learning model that focuses on understanding concepts, meanings, and relationships through an intuitive process that finally concludes. Discovery will run optimally if students are mentally involved to find a principle or concept in a text. In another context, this discovery means the mental process of assimilating concepts and principles in the mind. The syntax of the discovery learning model is as follows.

The syntax of the discovery learning model

Discovery Learning	HOTS at Sabilillah Islamic High
Discovery Learning	9
	School Malang
Stimulation	• Students were asked to watch a video of
	someone reciting the Qur'an and were asked
	not to conclude beforehand so there would
	be no confusion.
	• In addition to videos, on worksheets
	students were given one verse of the Qur'an
	along with a short translation and
	interpretation.
Problem Statement	• The teacher provided opportunities for
	students to identify agendas or problems
	that arose in the readings and videos that
	were played, then chose one of these
	problems to find a temporary answer;
	• Then students formulated problems by
	making questions.
Data Collection	When the exploration took place, the teacher
	allowed the students to collect as much
	relevant information as possible to answer
	the questions they raised as a problem.

	On the other hand, students tried to find the answers from various sources, such as interviews, observations, literacy reading of an event, or information finding in scientific
	articles. Students wrote down the important
	points contained in it.
Data Processing	Students processed the data obtained through
	searching on reading or so forth.
Data Verification	This process was repeated and conducted
	more thoroughly on data verification.
Generalization or Drawing	Students concluded by answering questions
Conclusion	and writing down some important points in
	finding the theme.

In the learning process that took place, two skills were targeted, the first was critical thinking skills and the second was creative thinking. John Dewey argues that critical thinking is an active process carried out by a student to find a problem in depth, ask questions, and find relevant information rather than waiting for the knowledge to be conveyed passively (teacher-centered).

The learning that has been conducted fulfilled several requirements to be categorized as higher-order thinking learning including students being invited to *focus*; to identify the problem well, than *reason*; to provide logical reasons or not to conclude the same as the existing problems then lastly there was also an *overview*; or commonly referred to as checking off something that has been found, noticed, studied, and concluded.

There was also creative thinking skill. The process of creative thinking in learning above was evidenced by concluding. Very often, the conclusions drawn by students sound strange or even far-fetched, this happened since students did not have the same solid foundation as the teacher's understanding. Therefore, the teacher's role in learning is still very vital as a problem decision or solution determiner from unsolved discussions conducted by students.

Development of a HOTS-based learning assessment curriculum

The learning evaluation process was developed by applying a higher-order thinking skills approach. This was proven by

- 1. Learning planning that was done by involving students. Students determined what target was achieved. There was also an integration process with actual and factual themes following the themes in learning;
- 2. The implementation of learning focused on student-centered learning as evidenced by the existence of step-by-step implementation that the students had to do. The process included providing a stimulus, allowing students to ask several questions at once, and also asking them to investigate the questions that have been raised. Then students in

groups were asked to conclude the answers they took from various sources (the internet, books, and or commentary books). The process continued with students presenting their findings and summarizing their work to their peers. This was the core of the implementation of HOTS-based learning which emphasized learning experiences, mindsets, and also student decision-making in solving problems.

The implementation of learning evaluation did not only focus on recalling, restating, or just remembering. Students were also invited to solve problems contained in an article or commonly known as evaluating and also analyzing. On several occasions, some questions required students to create something or provide a solution to a problem. Beginning with students reading an infographic, or an article relating to the problem and then given a stimulus question, students were obliged to write down answers by integrating a specified (ununified) integrated into the existing ideas.

Several sources explain that a question that includes HOT has the following characteristics: (Wiwik Setiawati: 2019) 1) transferring one concept to another; 2) process and containing information; 3) the interrelation of different information; 4) use of information to solve problems; 5) critically examine ideas and information.

HOTS are highly recommended for use in various forms of classroom assessment and school exams. To inspire teachers in preparing HOTS questions at the education unit level, the following describes the characteristics of HOTS questions. The Australian Council for Educational Research (ACER) states that higher-order thinking skills are a process of analyzing, reflecting, giving arguments (reasons), applying concepts to different situations, composing, and creating. Higher-order thinking skills are not the ability to remember, know, or repeat. Thus, the answers to HOTS questions are not explicitly stated in the stimulus.

Higher-order thinking ability is one important competency in the modern world so every student should practice them. Creativity in solving problems in HOTS, consists of 1) the skill to solve unfamiliar problems, and 2) the skill to evaluate strategies used to solve problems from various perspectives. 3) the skill to find new solutions that have never been explained.

The level of difficulty in the items is not the same as the ability to think at a higher level. For example, knowing the meaning of an uncommon word common word) may have a very high level of difficulty, but the ability to answer these problems does not include higher-order thinking skills. Thus, HOTS questions are not necessarily questions that have a high level of difficulty. (Wiwik: 2019)

Divergent. The HOTS assessment instrument has to be divergent, meaning that the instrument allows students to provide different answers according to the thinking process and point of view used because it measures analytical, critical, and creative thinking processes which tend to be unique or have different responses from each individual.

Using multiple representations. HOTS assessment instruments generally do not present all information explicitly but force students to dig up implied information

themselves. Even in the era of big data like today, namely the ease of obtaining data and information via the internet, it is appropriate that the HOTS assessment instrument also requires students not only to find information on their own but also to be critical in selecting and sorting out the information needed. To meet the expectations, it is best if the HOTS assessment instrument uses a variety of representations, including verbal (in the form of sentences), visual (pictures, charts, graphs, tables, including videos), symbolic (symbols, icons, initials, gestures), and mathematical (numbers, formulas, equations).

Based on contextual problems. HOTS questions are assessments based on real situations in everyday life where students are expected to be able to apply learning concepts in class to solve everyday life problems. Contextual problems faced by the world community today are related to the environment, health, earth and space, as well as the use of science and technology in various aspects of life. In this sense, it also includes how students' skills are for relating, interpreting, applying, and integrating knowledge in classroom learning to solve problems in real contexts. The characteristics of contextual assessment, usually abbreviated as REACT are Relating, Experiencing, Applying, Communicating, and Transferring experiences.

Use a variety of questions. The various forms of questions in a test kit (HOTS questions) as used in PISA aim to provide more detailed and comprehensive information about the ability of the test takers. This is important for the teacher to pay attention to so that the assessment generated can guarantee the objective principle of the ability of students according to the actual situation.

Objective assessment can guarantee the accountability of the assessment. There are several alternative forms of questions that can be used to write HOTS items including multiple choice and descriptions. Questions in the form of complex multiple-choice aim to test students' understanding of a problem comprehensively, relating one statement to another. As with ordinary multiple-choice questions, HOTS questions which are in the form of complex multiple-choice also contain stimuli that originate from contextual situations. Students are given several statements related to the stimulus/reading, then students are asked to choose true/false or yes/no. The statements given are related to one another. The arrangement of true statements and false statements is to be randomized, not systematically following a certain pattern. A systematically patterned arrangement can provide clues to the correct answer. If the student answers correctly in all given statements, a score of 1 is given or if there is an error in one of the statements, a score of 0 is given.

The descriptive question type is a question whose answers require students to organize ideas they have learned by expressing or stating these ideas using their sentences in written form. In writing questions in the form of descriptions, the question writer should have an idea of the scope of the material being asked and the scope of the answers expected, the depth and length of the answers, or the details of the answers that students might give. In other words, this scope shows the broad or narrow criteria of the problem being asked. In addition, the scope must be firmly and clearly illustrated in the

formulation of the problem. From the description above, it can be seen that the development of assessments in IRE subjects has applied the criteria for HOTS questions. This resulted in conformity between the assessment carried out by the teacher and the theory that had been conveyed.

CONCLUSIONS

In the development of the HOTS-based IRE curriculum, the conclusion that can be obtained is that aspects of curriculum development are carried out only in the scope of teachers, namely developing lesson plans, learning processes, and also learning assessments. The development of HOTS-based lesson plan curriculum at Sabilillah Islamic High School Malang was developed in the Learning Implementation Plan document. Its HOTS-based lesson plan format contains a plan that leads to high-order thinking of learning. Such as learning objectives that are integrated with My Project activities at school. In addition, there is also a learning contract column in which students can determine what competencies they want to achieve and what assignments they want to do as a form of accountability for the learning that has been carried out. The development of lesson implementation curriculum was developed in the learning scenario documents for the learning modules used. Learning takes place with independent learning approaches and personal search such as discovery learning, inquiry, and also problem-based learning. In addition, in the learning stages students still, get guidance from the teacher in finding material and concluding material. The conclusions of HOTS learning developed are as follows: 1) the teacher provides a stimulus through an article or a video 2) the teacher gives questions that will generate student knowledge. 3) students begin to formulate questions by noting important points from articles and discussing them with friends. 4) students look for answers by conducting investigations through several sources that have been determined by the teacher and agreed with the students. 5) students conclude answers to the questions that have been asked. 6) students together with their groups convey in front of the class the material that has been obtained. 7) the teacher confirms the material that has been submitted by students. 8) for students who still can't understand the concept the teacher will make a bridge of understanding to students or commonly called scaffolding. 9) the teacher and students conclude the lesson.

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