

CHAPTER I

INTRODUCTION

The chapter elaborates background, research questions, research purposes, research significances, research frameworks, and the research methodology and the data analysis.

A. Background of Research

In this globalization era, humans are required to have critical thinking skills to be able to process the information wisely and thoroughly. According to Paul & Elder (2002), economic, organizational, cultural, political, and environmental forces— realities with profound implications for understanding and learning, business and politics, human rights, and human conflicts— are constantly trying to find their way through the deepest structures of our lives. Critical thinking skills are not only possessed by adults but must have begun to be taught to students in school. This is closely related to the needs of students in self-development especially the development of character. Errors in processing existing information can result in an unfavorable development for students in the future (Blazar & Kraft, 2017).

For this reason, the ability to process, analyze, and reflect information is very important. According to Paul & Elder (2002), critical thinking is the organized ability to be learned which aim to think properly under any set of circumstances. One of the implementations of critical thinking skills is in learning process at school. The Education System in Indonesia has implemented critical thinking skills since the 2016 version of the 2013 curriculum and has continued to improve until the curriculum was revised in 2017, following the government regulations No. 20 year 2003 concerning on National Standard of Education in article 3:

“Education is a mindful and organized attempt at building improvement of environment and learning process as then students actively develop their potential to have spiritual strength, self-control, personality,

intelligence, moral personality, and the skills needed by themselves, society, nation, and country."

In regards to the explanation above, critical thinking skills is closely related to Higher-Order Thinking Skills or HOTS. According to Wolfley (2014), higher-order thinking skills is a part of critical thinking skills that contain the combination of thinking skills to analyze, evaluate, and create something. Brookhart (2010) states the definition of HOTS has correlated with critical thinking. Critical thinking is a logical, analytical approach that focuses on determining what to believe or what to do. The implementation of higher-order thinking skills in the 2013 curriculum is applied in all subjects, one of which is English. One of the goals of the higher-order thinking skills implementation is making students able to answer the English examination questions, not only being able to answer ordinary question categories, but students are able to create, evaluate, and analyze better known as the HOTS category (Krathwohl, 2002).

In Indonesian, the implementation of teaching higher-order thinking skills is quite challenging for the teacher (Ahmad, 2018). The teacher needs direct interaction to teach higher-order thinking skill concept because it is the high concept to teach. According to Mustika et al., (2019) which revealed the English teachers' perception of higher-order thinking skills in the research, the teachers have positive response towards HOTS. English teachers who are aware of the importance of HOTS tend to motivate their students to learn HOTS and have high skills in problem solving and critical thinking, while teachers who are unaware will give their students tasks related to the ability to remember. Moreover, in the present, the pandemic COVID-19 limits the direct interaction between teachers and students. Therefore, this research is aimed to identify the composition of the cognitive level in higher-order thinking skill test items other than that to elaborate the compatibility of LOTS and HOTS-based test items in mid-term and final of English examination.

The result of this research is aimed to suggest an evaluation to the teacher that higher-order thinking skills is important to teach and implemented properly in English examination.

Several researchers have conducted the research about the analysis of HOTS items. *First*, a research was conducted by Siswoyo & Sunaryo (2017) which explains the analysis of test items and the implementation of high order thinking skills in physics subject in Indonesian senior high school. *Second*, a research has been conducted by Hamdi et al., (2018) which elaborates about the development of higher-order thinking skills test instrument using Lombok local cultures as contexts for junior secondary mathematics. *Third*, a research was conducted by Putra & Abdullah, (2019) which explores higher-order thinking skills questions in English national examination by analysing content in multiple-choices items based on the aspects of HOTS in Bloom's taxonomy. *Fourth*, a research has been conducted by Himmah (2019), which investigates Mathematic final test items by grouping the questions based on the level of Low Order Thinking Skill (LOTS), Middle Order Thinking Skill (MOTS), and High Order Thinking Skill (HOTS). *Fifth*, a research was conducted by Ramadhana et al., (2018) which identify the HOTS category of English test items in Indonesian senior high school.

Different from the previous researches above, this research concerns with the analysis of HOTS items of English mid-term and final examination in Indonesian junior high school. It elaborates the Bloom's taxonomy of test items and the principals of HOTS the COVID-19 pandemic. Based on the explanation, this research analyzed The Analysis of HOTS in English Test Items Used in Junior High Schools during the COVID-19 Pandemic: An Indonesian Context.

B. The Research Questions

From the background of research, the problems are formulated into two following questions:

1. What is the proportion of HOTS-based test items in mid-term and final English examination developed by the teachers during the COVID-19 pandemic?

C. The Research Purposes

Considering the research questions above, the purposes of this research are:

1. To know the proportion of HOTS-based items in mid-term and final English examination during the COVID-19 pandemic.

D. The Research Significances

This research is expected to give some relevance based on two points along these lines:

1. Theoretical Significances

The result of this research is supposed to give a helpful contribution to learning and teaching English process during the COVID-19 pandemic. Furthermore, this research can be beneficial information for curriculum planners and English teachers as an evaluation for creating improvement in the implementation of teaching HOTS in English subject. Furthermore, to see the suitability of HOTS in English examination.

2. Practical Significances

This research is intended for educational practitioners. This research can be additional research for the teachers to set a goal in implementation of teaching HOTS items in learning and teaching process.

E. The Research Framework

One of the skills that a human has to improve is a critical thinking skill. Critical thinking skill becomes important because that skill could be beneficial to help human filtering the information. According to Paul & Elder (2002), critical thinking is the systematic art of ensuring that you use the strongest way

of thinking that you are capable of in any set of circumstances. As seen from the importance of having critical thinking skills, the education system in Indonesia also implements the necessity to the students of having critical thinking skills. As stated by Emir (2019) cited in Karakoc (2016), qualified education should help students understand the way of what and how to learn. When students evaluate what they have learned and their learning methods, they present their critical thinking skills.

In Indonesia education system, the other category of critical thinking aspect is the High Order Thinking Skill (HOTS). In accordance with Brookhart (2010), High Order Thinking Skills as *transfer* in terms of *critical thinking* and *problem-solving*. As stated by Krathwohl (2002), High Order Thinking Skills as *transfer* means to make students “fully understanding to think” that they can implement and relate the knowledge and skills they built during their learning to new contexts. High Order Thinking Skills as *critical thinking* means students could implement “fully understanding to think” to reflect and to make right decision in life. High Order Thinking Skill as *problem-solving* means students can be able to think that they can solve problems in their academic work and life more creatively. Indeed, critical thinking and High Order Thinking Skill certainly exist in language teaching and learning process.

Higher-order thinking skills is an important aspect which should be applied in educational scope. In accordance with the Indonesian government regulations No. 20 year 2003 concerning on National Standard of Education in article 3, the students have to develop their skills in every aspect. One of the aspects is developing higher-order thinking skills. The enforcement of higher-order thinking skills has been applied from junior high school level. Higher-order thinking skills are included in the 2013 curriculum and the revised edition. The implementation of higher-order thinking skills covers all subjects in teaching-learning and assessing process, one of them is in English subject.

In school, English starts to be applied from the elementary level until high school level. Although, learning English starts from elementary level, however, the implementation of higher-order thinking skills begins at junior

high school level. Beside the implementation of higher-order thinking skills in learning process, higher-order thinking skills be applied in assessment in the form of an exam. In educational scope, assessment, evaluation, and measurement become an important part to assess and evaluate the student's ability during learning process. According to Barnett & Francis (2012), as cited by Kusuma et al. (2017), higher-order thinking questions can encourage students to think deeply about the subject. So that the higher-order thinking instrument may provide stimulus as an assessment for learning to improve higher-order thinking among students.

Beside the important of assessing and evaluating the student's ability using the form of an exam, the exam needs to be analyzed to know the quality of each question. As stated by Ahiri & Hafid (2011), the purpose of the test item analysis is to improve the test's accuracy by revising or removing unsuccessful objects, as well as to consider the methodological details of and student's understanding of the material that has been learned. To analyze the English item test, we need to find the keyword listed in basic competence. Then, it represents the level of cognition in revised Bloom's Taxonomy.

The levels of Revised Bloom's Taxonomy are arranged from Lower Order Thinking Skills (LOTS) to Higher Order Thinking Skills (HOTS).

These below are six levels of thinking skills from the lowest to the highest:

1. Remembering
2. Understanding
3. Applying
4. Analyzing
5. Evaluating
6. Creating

Remembering, understanding, and applying belong to Lower Order Thinking Skills (LOTS). Then, analyzing, evaluating, and creating are listed in Higher-Order Thinking Skills (HOTS). LOTS and HOTS are classified in the cognitive domain of thinking skills that would evolve from elementary, secondary, to higher education. Reference to Bloom et al. (1956), the

researcher of educational psychologist and international activist stated that Revisions Bloom's Taxonomy is a component of the educational implementation framework that divides the educational goals into domains (Krathwohl, 2002).

F. Previous Research

There are several researches which have been conducted in analyzing high order thinking skills on test items. First, a research conducted by Siswoyo & Sunaryo (2017) investigated the implementation of higher-order thinking skills in teaching process and its application on Physics subject test item in Indonesian senior high school. This descriptive research observed the teachers who have been training on how to develop the learning of Physics to develop higher-order thinking skills in test items they made after receiving the training. The result shows to create and develop higher-order thinking skills in test items need significant time and have a high-quality ability to apply the taxonomy of Bloom in formulating the indicators of competency to be assessed.

Second, a research conducted by Hamdi et al., (2018), examined the development of test instrument for higher-order thought skills (HOTS) using Lombok local cultures as contexts for Mathematics subject in Indonesian junior high school. This developmental research provided the data of 75 students of VII grade which did the test. The data were analyzed utilizing classical test theories of difficulty levels, distinguishing abilities, and functioning distractors. Meanwhile, the test validity is using the Aiken Formula which evaluated and estimated by Cronbach Alpha. The outcome indicates that the 20 of multiple-choice items, 15 of them were valid and reliable and had a medium-rated difficulty level average of 0.28, a good-rated distinguishing ability of 0.31, a good-rated reliability coefficient of 0.79, and all well-functioning distractors characteristics of good test items.

Third, a research conducted by Putra & Abdullah, (2019), discussed the higher-order thinking skills in English national examination in Indonesia. This quantitative research examined one package of English national examination

in 2013 until 2018. They asses 210 multiple-choice items of which 35 reading comprehension items are included in each exam. The finding presents there are inadequate numbers of HOTS questions. 157 items are classified as LOTS and only 53 items are classified as HOTS (25.23%). The second finding is whether the level of HOTS used in the 2013-2018 English national examination is merely the level of analyze. The differentiating and organizing are the sub-competences of the analyzing aspects that are mostly counted in all examinations.

Fourth, a research conducted by Himmah, (2019), elaborated the analyzes of higher-order thinking skills questions in final semester assessment of Mathematic subject in Indonesian junior high school year 2017/2018. This descriptive research specified the questions based on the level of thinking by grouping into Lower-Order Thinking Skills (LOTS), Middle-Order Thinking Skills (MOTS), and Higher-Order Thinking Skills (HOTS) and grouping questions on the basis of the kind of stimulus used as a basis question. This research found there are more than three-quarters of all questions are in the Middle-Order Thinking Skills, while, less than a quarter is the Higher-Order Thinking Skills and one question in Lower-Order Thinking Skills.

Fifth, a research conducted by Ramadhana et al., (2018), identified the Higher-Order Thinking Skills based questions in English mid-term examination in Indonesian senior high school. This descriptive research examines the mostly-used criteria of HOTS in the mid-term and final semester test. The test was developed by the English teachers from MGMP Bahasa Inggris in senior high school level. The finding reveals there are 33% of HOTS category in the mid-term test, and 17% in the final semester test. Another result found the mostly-used of HOTS characteristics are *creating* and *deduction*. Conceptual knowledge, procedural knowledge, and metacognitive knowledge are the dimensions of knowledge found in the test.

The previous research studies were primarily concerned with the categories of HOTS items and the mostly-used of HOTS characteristics in examination. Meanwhile, the current research investigates the categories of

HOTS-based test items in English mid-term and final examination of Indonesian junior high school. This is a descriptive research using a document analysis to find of how HOTS-based test items are applied during COVID-19.

