



**HIGHER ORDER THINKING SKILLS ANALYSIS OF THE ENGLISH  
NATIONAL STANDARDIZED SCHOOL EXAMINATION**

**The Case of SMP Negeri 36 Semarang in the Academic Year of 2018/2019**

**a final project**

**Submitted in partial fulfillment of the requirement  
for the degree of *Sarjana Pendidikan*  
in English**

**by**

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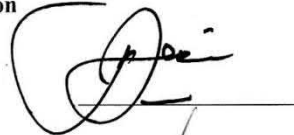
## APPROVAL

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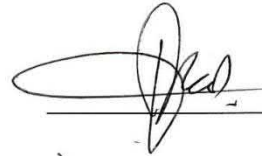
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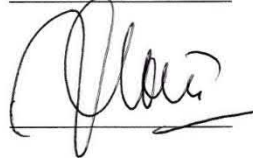
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## DECLARATION OF ORIGINALITY

I am Mustika Auliyana hereby declare that this study entitled *Higher Order Thinking Skills Analysis of the English National Standardized School Examination (The Case of SMP Negeri 36 Semarang in the Academic Year of 2018/2019)* is my own work and has not been submitted in any form for another degree or diploma at any university or other institute of tertiary education. Information derived from the published and unpublished work of others has been acknowledged in the text and a list of references is provided in the bibliography.

Semarang, July 2019



Mustika Auliyana

## **MOTTO AND DEDICATION**

Spend the night awake in prayer, except for a little bit of sleep. (73:2)

Be sure that there is something waiting for you after much patience, to astonish you to a degree that you forget the bitterness of the pain. – Ali bin Abi Thalib

To my beloved parents

To my brothers

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## ABSTRACT

**Auliyana, Mustika.** 2019. *Higher Order Thinking Skills Analysis of the English National Standardized School Examination (The Case of SMP Negeri 36 Semarang in the Academic Year of 2018/2019)*. Final Project. English Department, Faculty of Languages and Arts, Universitas Negeri Semarang. Advisor: Novia Trisanti, S. Pd., M. Pd.

**Key Words:** English test, higher order thinking skills, English Standardized School Examination.

Assessment and higher order thinking skill (HOTS) are crucial aspects of the learning because in designing the questions, the teacher must include HOTS which aimed to enhance the learner's critical thinking. The final project was aimed to describe to what extent the English National Standardized School Exam assesses higher order thinking skills in terms of analyzing, evaluating, and creating and to describe how the higher order thinking skills are achieved in the English National Standardized School Exam of SMP Negeri 36 Semarang in the academic year 2018/2019. This study is descriptive qualitative research. To collect the data, the writer used two instruments. First instrument relied on Bloom's Revised Taxonomy that merely assessed the higher order items. Another instrument was analyzed the overall test items. In analyzing the data, it was categorized into a six degree of the cognitive domain of Bloom's Revised Taxonomy with determining the action verbs and cognitive processes of the item itself. The data were classified into LOTS and HOTS. Next, the HOTS questions were examined using analysis cards which developed by Keshta and Seif (2013) consisting of 26 item types. At the second instrument, the writer gave a checklist if the item was suitable for aspects examined and provided a cross if it was not. Eventually, all the result analysis are presented in a form of the diagram and be interpreted in detail descriptions. The findings revealed that LOTS were more prominent than the HOTS with 73.4%. Understanding level is mostly found in this item with 46.7%, remembering level gained 20% and applying level achieved 6.7%. Meanwhile, HOTS only got 26.6% which 22.2% belonged to analyzing level and evaluating skill reached 4.4%. There was a null distribution of creating level. In addition, all multiple-choice items have fulfilled two criteria; interesting stimulus and contextual stimuli with 100%. Meanwhile, the aspect of implied answers has 25 frequencies with a percentage of 62.5%. The category of HOTS achieves ten frequencies with the percentage of 25. They belong to analyzing level. All of the questions in the essay test cover 12 criteria. The categories of HOTS and answering in the form of descriptions have the similarity results which obtain the percentage of 40 with two frequencies. Moreover, it also recommended for English teachers to enrich some exercises to cover higher order thinking questions and integrate the technologies with methods of learning in order to enhance their teaching strategies in the language classroom.

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# **CHAPTER I**

## **INTRODUCTION**

In this chapter, the writer presents seven subchapters which contain background of the study, reasons for choosing the topic, research problems, objectives of the study, significant of the study, limitation of the study, and outline of the final project that present the basic information from the writer in doing her research.

### **1.1. Background of the Study**

In teaching, one of the essential aspects is an assessment. The assessment aims to provide feedback to students and teachers. It affects learners' motivation and learning behavior since the teacher directs their learning activities. In carrying out the assessment, its instrument in the form of a test must embrace cognitive, affective, and psychomotor aspects. According to the Minister of National Education Number 20 Year 2007 regarding Educational Assessment Standard is gathering and processing information to assign the achievement of learning outcomes.

Assessment plays a vital role in the learning since it is a method to find out the information how far the outcomes which has been achieved by the students and to give a feedback to both teacher and students. As stated in Mitana et al. (2018) that assessment is defined as getting relevant information about learners, the learning process, the content, and the learning outcomes which intended for making a

judgment on the learning process, the learners, the curriculum and the educational objectives.

One of ways to encourage the quality of the students' English proficiency is a testing which becomes part of teaching and learning purposed to measure the ability of the students and to know the progress of the students in the learning process. A test is designed for several purposes. It is useful for students doing the test and the teacher administering the test. For the students, it can help them learn the language by allowing them to study harder and to measure their ability. The test also shows students where they need to improve and they will enhance their learning and awareness of the objectives of the study. If they are given a test, it means that a test can motivate them to study harder and show their ability in the study's subject. A test is also useful for the teacher. Teacher will know how far the students master the lesson and the difficulties they deal with. The test can help the teacher know the effectiveness of their teaching and to test the learning process. It means that a test makes it easier for the teacher to diagnose the students' difficulties and to improve their teaching process. The test designed by the teacher also must refer to the curriculum used. The quality of the item can be known in terms of the teachers' in designing the item questions.

National Examination (abbreviated into NE) is one of large-scaled standardized test administered in Indonesia. It is held throughout the country to measure students' achievement and to improve national educational quality. According to the Regulation of the Minister of Education 2005 as quoted by Ahmad (2016), National Examination was defined as a test to evaluate and to measure the learners'



competence nationally by the central government after the process of teaching and learning.

National Standardized School Examination (abbreviated into NSSE) is different with National Exam (NE). On NSSE, all subject matters are tested. Indeed, NSSE becomes the determinant of graduation. The questions and execution time of National Exam are disparate. Whether NE only tested three until six subjects, NSSE measures all subject matters except primary school were only test three subjects. When the NE only consists of multiple-choice items, NSSE is equipped with essay questions. There are three types of NSSE, they are: (1) Computer Based Testing, (2) Paper Based Testing and (3) Combination Based Testing. Final Test combination uses computer based for multiple-choice, and paper based testing for essays. In addition to NSSE, report progress from the first grade also influences the determinant of graduation.

Higher order thinking skills were first introduced by Benjamin Bloom (1956). According to Bloom's taxonomy revision, cognitive processes are divided into two, namely low-level thinking ability (LOTS) and high-level thinking skills (HOTS). Low-level thinking skills (LOTS) consist of remembering, understanding, and applying. While high-level thinking skills (HOTS) include analyzing, evaluating, and creating. In accordance with Graduate Competency Standard (SKL) in the Minister of National Education Regulation Number 23 of 2006 for graduates SMA/MA must have and apply pedagogic competence in consequence, critically, creative, and innovative. Teachers should apply higher-order thinking skills in the learning process. Nevertheless, the teacher is required to design an item, test based

on the Higher Order Thinking Skill of Bloom's revised taxonomy. This test can enhance the students' thinking skills. Furthermore, the students will be guided to think critically in complexity and various problems. Higher order thinking skill is one of the important components in learning process which students are required to analyze, to evaluate, to create the diverse questions and able to adopt their knowledge into the new situation. According to Anasy (2016) the higher order thinking skill has a vital role through the learning process since it could improve students' ability in critical thinking skill to evaluate information. In addition, the higher order thinking skill is not only significant in academic field but also in every part of our life to present our opinion and make a logical decision whoever and wherever we are.

The explanations above guide the writer to conduct a research to find out to what extent the English National Standardized School Exam assesses higher order thinking skills in terms of analyzing, evaluating and creating. The researcher decides to explore the English National standardized school exam for ninth graders of SMP Negeri 36 Semarang in the academic year 2018/2019 since this item test has not been analyzed in terms of its higher order thinking skills.

## **1.2.Reasons for Choosing the Topic**

- (1) Higher order thinking skill is one of the essential components in a learning process which students are required to analyze, to evaluate, to create the diverse questions and able to adapt their knowledge into the new situation. According to Anasy (2016) the higher order thinking skill has a vital role

through the learning process since it could improve students' ability in critical thinking skill to evaluate information. Moreover, Anasy (2016) adds the higher order thinking skill is not only significant in the academic field, but also in every part of our life to present our opinion and make a logical decision whoever and wherever we are

- (2) Assessment has a crucial role in the learning since it is a method to find out the information how far the outcomes which has been achieved by the students and to give a feedback to both teacher and students. As stated in Mitana et al. (2018) that assessment is the process of obtaining relevant information about learners, the learning process, the content, and the learning achievement which intended for making a judgment on the learning process, the learners, the curriculum and the educational objectives.
- (3) The English National Standardized School Exam which is administered to ninth graders of SMP Negeri 36 Semarang in the academic year 2018/2019 has not been analyzed in terms of its higher order thinking skills.

### **1.3. Research Problem**

The study is aimed at answering the following questions:

- (1) To what extent does the English National Standardized School Exam assess higher order thinking skills in terms of analyzing?
- (2) To what extent does the English National Standardized School Exam assess higher order thinking skills in terms of evaluating?
- (3) To what extent does the English National Standardized School Exam assess higher order thinking skills in terms of creating?

- (4) How are the higher order thinking skills achieved in the English National Standardized School Exam of SMP Negeri 36 Semarang in the academic year 2018/2019?

#### 1.4. **Objectives of the Study**

The objectives of this study are:

- (1) To describe to what extent the English National Standardized School Exam assesses higher order thinking skills in terms of analyzing.
- (2) To describe to what extent the English National Standardized School Exam assesses higher order thinking skills in terms of evaluating.
- (3) To describe to what extent the English National Standardized School Exam assesses higher order thinking skills in terms of creating.
- (4) To describe how the higher order thinking skills are achieved in the English National Standardized School Exam of SMP Negeri 36 Semarang in the academic year 2018/2019.

#### 1.5. **Significances of the Study**

Based on the previous objectives, the significances of the study can be stated as follows:

##### **(1) Theoretical Significance**

This study would provide information to the readers about Higher Order Thinking Skill (HOTS) on the English National Standardized School Exam and more information on doing research especially in the assessment field. Moreover, this information will be a reference to the next researcher.

## **(2) Practical Significance**

This study will give information about Higher Order Thinking Skill on the English National Standardized School Exam and the English teachers are expected to design a test and imply it in their learning process.

## **(3) Pedagogical Significance**

This research presents theory and analysis of cognitive higher order cognitive skills of the English National Standardized School Exam. Hopefully, it can provide broader insight to the teacher about higher order thinking skill from the revised edition of Bloom's Taxonomy and in designing a good test.

### **1.6. Scope the Study**

The limitations of this study are:

- (1) There is the English National Standardized School Exam each year for students in the middle school. In this study, the writer investigates the English National Standardized School Exam of SMP Negeri 36 Semarang in the academic year 2018/2019.
- (2) The item of English National Standardized School Exam consists of multiple choice and essay. The writer analyzes multiple choice items and essay based on Higher Order Thinking Skill (HOTS) Revised Bloom's Taxonomy.

### **1.7. Definition of Key Terms**

There are three points of definition of key terms that will be acquired in this study:

(1) Higher order thinking refers to the mental processes of analysis, synthesis and evaluation, and is commonly used in activities such as problem solving, reasoning, thinking, assessing, and concluding (Bloom, 1956). Moreover, (King, Goodson, and Rohani: 2004) defined high-level thinking skills (HOTS) as a critical thinking skills consequent, reflective, meta-cognitive and creative which these abilities will enhance when people have problems that are unfamiliar, uncertainties or a new phenomenon that entails solutions that have never been done before. Higher order thinking for an individual depends on the individual's ability to apply, develop, and enhance knowledge in the context of thinking. HOTS includes cognitive levels of analysis, synthesis, and evaluation and mastery in applying the routine things in new and different situations (Mc Davitt. 1994). From explanation above, the researcher concluded that Higher order thinking skills are the individual's ability to activate his minds in order to solve problems, analyze arguments, make judgements, draw conclusion, and also combine the ideas into new situations.

(2) According to Brown (2004: 3) test is a method of examining a person's ability, science, or performance in a given domain. A well-constructed test is an instrument that gives a precise measure of the learners' ability within a particular domain. Bachman (1995:9) explains that a test serves to motivate the learner and to give the unity to the portions of the material being studied at different times. It can be a device to prove the skills and abilities in learning. Furthermore, Linn & Gronlund (2009:28) explain that

a test is a particular type of assessment that consists of a set of questions administered during a fixed period of time under reasonably comparable conditions for all students. From those explanations, the writer concludes that test is an evaluation tool in terms of oral and written that measures how well students have mastered their ability, knowledge, or performance in the learning materials.

- (3) Brown (2004) standardized test is the assessment equipment for which there are uniform etiquettes for administrations, pattern, scoring, and reporting. It includes a norm-referenced test, the purpose of which is to place take-takers on a continuum across a range of scores and to discriminate test-takers by their relative thinking (Brown, 2004:67). Gawthrop (2014) explains that standardized test is “A test administered and scored in a consistent or standard manner... administered under standardized or controlled conditions that specify where, when, how and for how long children respond to the questions. In standardized tests, the questions, conditions for administering, scoring procedures, and interpretations are consistent. A well designed standardized test provides an assessment of an individual’s mastery of a domain of knowledge or skill.”. The researcher concluded that standardized test is a test which has a very consistent procedure due to its time, scoring, and questions on the test are similar.
- (4) The English National Standardized School Exam is one of standardized test which covers all subject matters and become the determinant of students’ graduation. In accordance with Education National Standard Council

(BSNP) number: 0048/BSNP/XI/2018 in the academic year 2018/2019 defines as an activity to assess the students' competency outcomes administered by the Education Unit refers to the Competency Standards of Graduates to achieve recognition for learning achievements.

## **1.8. Outline of the Study**

The writer presents the result of the study entitled Higher Order Thinking Skill (HOTS) Analysis of English National Standardized School Exam. This research consists of five chapters, namely:

Chapter I consists of the background of the study, reasons for choosing the topic, statement of the problems, objectives of the study, significance of the study, and outline of the report.

Chapter II deals with review of previous studies related to the topic of the study, the review of theoretical studies and framework of the study.

Chapter III contains the research approach, roles of the researcher, object of the study, the source data, data collection, data analysis.

Chapter IV presents the findings and the discussions of the study which discusses Higher Order Thinking Skill (HOTS) analysis on the English National Standardized School Exam.

Chapter V represents conclusion and suggestions for teachers, students, readers, and the future researchers based on the result of the study.





## **CHAPTER II**

### **REVIEW OF RELATED LITERATURE**

This chapter presents three subchapters; Review of the Previous Studies, Review of the Theoretical Background, and Framework of Analysis. The first subsection is Review of the Previous Studies which explains about studies related to this research. The second is Review of the Theoretical Background which consists of Definition of Thinking, Basic Principles of Assessment, the purpose of Language Test, Language of Testing, Type of Test, Type of Test Items, Revised Bloom's Taxonomy, Concept of Higher Order Thinking Skills, Standardized Test, and The English National Standardized School Exam. The last is the Theoretical Framework, which describes the implementation of the research.

#### **2.1. Review of the Previous Studies**

There were many studies which had ever been conducted on higher order thinking skills either in the form of textbooks or the test.

Bloom's taxonomy is one of the taxonomies which is most-applied in research, especially in the educational objectives. In analyzing the data, other researchers adopted different taxonomies as their research. They are Ahmad (2016) and Permatasari (2012) which used dissimilar taxonomies as their main theories.

The results showed that LOTS are dominant in ENE items. All of twenty packages, literal level showed around 68.6% of the total number of questions. Meanwhile, the question of reorganization reached 20.8%. The questions request

student's inferential level only came up 10.3%. In addition, the evaluation comprehension only got 0.3%. The result also showed the complete null appreciation as the highest degree of thinking in the Barret's Taxonomy.

The next research was done by Permatasari (2012). The result by using Bloom's taxonomy showed that the reading tasks in the textbooks still focus on the understanding level, which does not embrace higher critical thinking. And, the result by Numrich's taxonomy indicated that the reading tasks are mostly structured by questions which focused on the text.

Some researchers used the English textbooks as their object of the studies which they adopt Bloom's revised taxonomy as their main theories. They are Pratiwi (2014), Ilma (2018), Seif (2012), Anasy (2016), Freaht & Smadi (2014), Muchlis (2015), Zamani & Rezvani (2015), Lubis (2016), Margana (2017), Zaiturrahmi, et al, (2017) Mrah (2017), Hapizah & Yetti (2019), Setiyawati (2016), Ayaturrohim (2014), Arvianto & Faridi (2016) Gordani (2010), Febrina, Usman, and Asnawi, (2019), Nastiti (2019), and Allen & Wern (2017).

Anasy (2016) found that the distribution of higher order thinking level is lower than the lower order thinking level. In same line, Ilma (2018) showed only obtains 8 out of 33 questions are analyze level. Likewise, the result of reading exercises showed that all the type of reading exercises are embraced in its English textbook including short-answer questions are being most prominent exercises. In term of availability the example, purpose of exercises and relevance with 2013 curriculum has been explained clearly in each table of the reading tasks.

In addition, Pratiwi (2014) showed the analyze skill obtains the highest distribution by obtaining 15 out of 157 essay reading questions with 7.7% while the evaluate skill gains 3 out of 157 questions or 1.9% and the create skill has absence distribution. Further, Seif (2012) revealed only fifteen out of 26 items (58%) which matched the criteria to evaluate the reading comprehension exercises in the English textbook are available. Thus, the distribution of the available HOTS categories is the following: (1) Analysis skill has 51.92%. The SB got 58.44%. Meanwhile, the WB has 33.33%, (2) Synthesis skill obtained 41.35%. The SB got 32.47% and the WB reached 66.67%, (3) Evaluation skill merely got the percentage of 6.73 in only the reading tasks of the SB. It can be concluded that the exercises of the SB did not cover of this skill.

The findings of Zaiturrahmi, et al. (2017) showed that there were 227 instructional questions for listening, reading, speaking, and writing activities. Listening activities solely had an instructional question; while the most prominent ones were found for reading activities (125); speaking and writing with average frequencies (45 and 46). Further, the results indicated that most of those instructional questions covered LOTS (198 questions). The conclusion of Muchlis (2015) revealed that the most dominant were knowledge and comprehension level. In summary, Margana (2017) showed that the establishment of the English textbooks oriented to HOTS has positively responses by the respondents as the English textbook motivates students of VHs to develop their higher order thinking skills which lead to learners' creativity and self-regulated learning practices. In her finding, Lubis (2016) concluded the following availability of the higher order skills:

the analyze skill has 20 out of 155 reading comprehension tasks (12,9%), the evaluate skill only obtains 4 out 155 questions (2,6%) and the create skill obtains 2 out 155 questions (1,2%). In their studies, Freatat & Smadi (2014) and Zamani & Rezvani (2015) indicated that low-level questions are prominent in the three textbooks. Hapizah & Yetti (2019) in their result pointed out the reading comprehension tasks in its English textbook covered 36 questions (9,7%) higher order thinking skill level and the most frequently HOTS criteria in the reading comprehension tasks is analyzing level. Hereafter, Mrah (2017) in his study proved that most of the questions fulfilled the three lower-level categories of the taxonomy.

Furthermore, these studies have been conducted by Setiyawati (2016) and Ayaturrochim (2014). Both studies showed the dissimilar results, which Setiyawati (2016) represented the textbook was mostly on higher-order thinking skills questions which the percentage of HOTS (61.40%) was higher than LOTS (38.60%). It can be concluded that the textbook was compatible for the 11<sup>th</sup> grade students.. Meanwhile, Ayaturrochim (2014) indicated that there were 30 reading questions (98%) covered remembering level of the cognitive domain and only 1 reading task (2%) assessed understanding skill. It could be concluded that the prominent cognitive level of Revised Bloom's Taxonomy was remembering level.

Arvianto and Faridi (2016) showed as follows: (1) there are only three cognitive domain found: remember, understand, and evaluate, state that the reading items are not in hierarchical regulate, (2) There are two knowledge dimensions found: factual knowledge and meta-cognitive knowledge that the knowledge dimension presented is not varied. (3) The reading materials embrace LOTS than HOTS. (4) The reading

questions in the textbook are less suitable with 2013 curriculum. Whilst, Gordani (2010) proved that all of the tasks were focused on the three lower levels of Bloom's taxonomy.

As a result, Febrina, Usman, and Asnawi (2019) revealed the most frequently level in the textbook was HOTS. It was 66.8% for higher order thinking skills. Meanwhile, Nastiti (2019) showed LOTS were more prominent than the HOTS were found in 43% of the first textbook's reading questions and 30% of the second textbook's reading tasks.

Allen & Wern (2017) focused on the syllabus with the textbook as a cross reference and teaching-learning methods. In their findings, Allen & Wern (2017) revealed that the synthesis level of MUET candidates was low. Instructor directed courses embraced synthesis, while syllabus emphasis on the skill was diminished.

The next researches were conducted by Nafis (2009), Rezaee and Golshan (2016), Mukti (2017), Mitana, et.al (2018), Singh & Shaari (2019), Diputera, et.al (2018), Ramadhana, et al. (2018), Lan and Chern (2010) and Ayu (2018) which used English Final Exam test item as their data. In analyzing their data, they used Bloom revised taxonomy as their main theories.

As the result, Nafis (2009) indicated that in this test item did not comply the six domains of Cognitive Bloom's Taxonomy and relevant sample verbs only got 22,86% included remembering level, 40% belonged to understanding level, and 34,28% was analyzing level. In addition, Mukti (2017) in her finding showed that the reading questions item in Vocational High School are applied on 2 levels;

remember and understand which from 105 questions of the reading test, 18% of them belongs to remember level and another one is understand level. In their result, Rezaee & Golshan (2016) indicated that these tests consisted of diversity questions which were correlated to knowledge, comprehension and application levels of Bloom's taxonomy of educational purposes. In addition, in the third grade high school English final exam, comprehension level was more prominent. While, the most frequent domains in second grade high school English final exams are knowledge and comprehension levels.

In their findings, Mitana, et.al (2018) revealed that an overall mean value of 86,8% of LOT questions and another one is HOTS questions. In same line, Singh & Shaari (2019) indicated that most reading comprehension items in the English examination papers need further revisions in order to attain the standard of HOTS that have become section of the new curriculum and national educational policy. Afterward, Diputera, et.al (2018) pointed out of large-scale test capability of the analysis level reached 43% for category of very high, the category of high got 26%, the category of medium obtained the percentage of 26 and 6% belonged to the category of low. The ability of evaluation has 30% for category of very high, the percentage of 21 belonged to high category, the medium level obtained 20%, the category of low (29%), and very low (1%). The following the result of create ability: very high (29%), high (28%), medium (41%), and low (3%).

As a result, Ramadhana, et al. (2018) showed the tests constructed by senior high school English teachers of Padang using HOTS criteria and it showed that the tests had fulfilled the criteria of HOTS. The result of analysis of the two items, 33%

of HOTS items were found in Mid Semester tests, and the percentage of 17 referred to HOTS questions found in semester tests. In addition, the result was found that the most frequently HOTS criteria in the tests are creating and deduction.

Thereafter, the researchers have been done by Lan and Chern (2010) and Ayu (2018). Ayu (2018) in her study showed that there are three out of six cognitive domains of Revised Bloom's taxonomy in multiple choice items teacher-made at tenth grade of SMA Negeri 1 Sidoarjo which are remember, understand and apply. Meantime, Lan & Chern (2010) found four cognitive levels of new version of Bloom's taxonomy within two tests (Remember, understand, apply, and analyze) with eight sub-skills, and three types of knowledge which are factual, conceptual, and procedural.

All of researches above were about Bloom's taxonomy and higher order thinking levels which have similarities in the theories. The writer used the English National Standardized School Exam is administered to ninth graders of SMP Negeri 36 Semarang in the academic year 2018/2019 as the objective of the study because this item test has been never analyzed in terms of higher order thinking skills.

## **2.2. Theoretical Background**

In this subchapter, the writer presents to review the theoretical studies used as reference in conducting this research. The theoretical studies consist of Definition of Thinking, Basic Principles of Assessment, the purpose of Language Test, Language of Testing, Type of Test, Type of Test Items, Revised Bloom's



Taxonomy, Concept of Higher Order Thinking Skills, Standardized Test, and The English National Standardized School Exam.

### **2.2.1. Definition of Thinking**

As impeccable living beings, humans are created to have the mind to think. Fundamentally, thinking is the process of finding ideas or notions in solving a problem logically and abstractly. As often as possible we think critically, our ability to think is being more incisive.

In accordance with Elder and Paul (1994: 34) as quoted by William (2003) thinking is a core of our future, not only for our society but for every community in the universe. Thinking is used to apply one's mind plausibly and objectively in evaluating or encountering a situation (Webster's Encyclopedic Unabridged Dictionary in Schraw and Robinson, 2011).

In addition, Schraw and Robinson (2011: 20) that thinking is componential in that it used multiple skills in a supple sequence to resolve potentially different outcome such as evaluate information, reason, accomplish problems, analyze arguments, make a conclusion, or self-regulate one's learning. In addition, thinking is goal-directed to attain a particular purpose, or perhaps multiple goals. Moreover, thinking is deliberate, often with the intent to articulate an issue, select a problem-solving solution, examine relevant information, and choose some course of action

Moreover, Holyoak and Morrison (2005: 2) as cited by Schraw and Robinson (2011) stated that thinking as the systematic alteration of mental representations of knowledge to characterize proper or possible states of the world, often in service to

goals. They added definition thinking is viewed as the superior term in relation to other subordinate cognitive activities. Thinking is non-automated, meaning it takes some section of our limited processing resources that may enforce enormous cognitive load on the information processing system, (Mayer and Wittrock in Schraw and Robinson, 2011).

From explanations above, the writer concluded that thinking is the creativity in processing existing information to analyze, to evaluate and to make decisions of problems to achieve a particular goal.

#### **2.2.2. Basic Principles of Assessment**

Brown (2004) stated that assessment is an ongoing way that covers a much wider domain. These primary principles of assessment according to Brown (2004: 16)

1. Periodic assessments, both formal and informal, can enhance motivation by serving as milestones of learner progress.
2. Appropriate assessments aid in the affirmation and storage of information.
3. Assessment can assure areas of strength and proper areas needing further work.
4. Assessments can give a sense of periodic closure to modules within a curriculum.
5. Assessments can motivate student autonomy by encouraging students' self-evaluation of their progress.
6. Assessments can push students to set goals for themselves.
7. Assessments can aid in measuring teaching effectiveness.

### **2.2.3. The Purpose of Language Test**

Harrys & Vallete (1969: 2-4) indicated six distinct emphases in assessing student capability or potential.

1. To assign readiness for instructional programs
2. To categorize individuals in appropriate language classes.
3. To identify the personal's specific strength and weakness.
4. To evaluate competence for learning
5. To evaluate the extend of student outcome of the instructional goals
6. To measure the effectiveness of instruction

### **2.2.4. Language Testing**

According to Brown (2004, p.3) test is a method of evaluating the individual's capability, knowledge, or performance in a given domain. A well-constructed test is an instrument that gives a proper measure of the test-taker's ability within a specific domain. Moreover, Brown (2004, p.3) adds that a test is a set of techniques, methods, or questions which entails performance on the part of the test-takers. To qualify as a test, the method must be assertive and structured: multiple-choice items with prescribed appropriate answer; a writing prompt with a scoring rubric; an oral interview based on a question manuscript and a checklist of supposed responses to be completed by the administration.

The test is one of the instruments used to obtain the information entailed in the evaluation, consisting of a number of questions or items that are used to collect data or information through the response of the test participant (Rusilowati in Diputera,

et. al, 2018). The question in the test entails the subject to show what is known or what the subject has learned by answering the questions (Azwar, 2010, p.3).

In same line, Hambelton and Rogers (2000, p.4) as cited by Diputera, et.al (2018) stated that the tests referred to by the norm are constructed substantially to ease and compare between individuals or group about the properties measured in the test. The tests referred to by criteria such as proficiency test, mastery test, competency test, and primary skills are established to sustain interpretation of individual test scores with respect to a set of clear goals, abilities, or competencies.

From all explanation above, the writer concluded the test is a structured instrument which designed primarily to facilitate and to compare the individual's ability, knowledge or performance containing a number of questions or items within a particular domain.

#### **2.2.4.1. Test of Reading**

A reading test measures how well the learners read and understand the English texts. It is commonly named a reading comprehension test. This assessment requires students to comprehend the text paragraph as a whole. Likewise, they have to understand the meaning of uncommon words, infer the overall text, and interpret the author's purpose.

According to Madsen (1983:76) as cited by Nafis (2009), tests of reading comprehension contain tests of sentence comprehension and passage comprehension. Before reading tests in the second or foreign language can be

successfully designed, the first language reading skills of the testers must be ensured (Heaton in Nafis, 2009).

#### **2.2.4.2. Test of Writing**

Test writing has a variety of form and factors which be evaluated in writing skills. Some of them are closure test and essay. Writing test is a test in which learners are obliged to put ideas or thoughts into the written form. As with reading tests, it goes by several stages. Students learn to write starting from by knowing alphabets, words, sentences, and paragraphs. Therewith, there are several factors that must be considered in writing tests such as grammar, punctuation, spelling, vocabulary, and so on. Writing test is a test that the questions and the answer given to the learners in the form of writing. Students in responding questions do not always answer to the form of writing answers, but can be other shapes such as marking, coloring, drawing, and so on (Majid in Diputera et al, 2018)

There are two forms of written test items, namely:

1. Select an answer, which is divided into (a) multiple choice; (b) two choices (right-wrong, yes-no); (c) match; (d) cause and effect.
2. Providing answer, differentiated between: (a) completing, (b) short answer, and (c) description or essays.

According to Madsen (1983:101) as quoted by Nafis (2009), states the factors measured in test of writing embrace spelling, punctuation, vocabulary, grammar, diction, appropriate content, rhetorical matters (organization, cohesion, unity;

appropriateness to the audience, topic, and occasion), as well as current concerns such as logics and style.

### **2.2.5. Type of Test**

In this study, the writer divided two kinds of type of test which are (1) proficiency test and; (2) achievement test. Proficiency test consists of two types: placement test and diagnostic test. Furthermore, summative test and formative test are included in the achievement test.

#### **2.2.5.1. Proficiency Test**

Brown (2004:44) stated that proficiency test is constructed to test global competence in a language which consists of standardized multiple-choice items on grammar, vocabulary, reading comprehension, and listening comprehension. The example of a standardized is TOEFL and IELTS. The proficiency test also measures what students have learned, but the purpose of the proficiency test is to assign whether this language ability appropriate with particular language requirements. The proficiency tests usually report test takers language capability on a continuum that considers a predetermined set of categories (Harrys and Vallete: 1969:5-6). In addition, Hughes (1989) said proficiency test is constructed to examine people's ability in a language regardless of any training it may have had in that language.

Based on these explanations, the writer concluded that the proficiency test is an exam designed to test an individual's proficient in mastering all languages skill in terms of listening, speaking, reading, and writing.

#### **(1) Placement Test**

Brown (2004:45) explains the placement test is purposed to place a student into a certain level of a language curriculum or school that includes a sampling of material to be covered in the diversity courses in a curriculum. This test is purposed to provide information that will help to place test-takers at the particular level of the teaching program most suitable to their abilities (Hughes: 2003:17 in Hanendra: 2018). Based the definitions, it can be summed up that placement test is a test of designed by the educational institution to specify test-takers' knowledge and proficient which its result will put them to appropriate class or program.

## **(2) Diagnostic Test**

Diagnostic test is used to recognize students' strengths and weaknesses which purposed primarily to assure what learning still needs to take place (Hughes in Hanendra: 2018). In same line, Brown (2004: 46) says that a diagnostic test is constructed to specified aspects of a language. This test has dissimilar with a general achievement test. Achievement test analyze the extent to which learners have achieve language features that have already been taught. Meanwhile diagnostic test should acquire information on what learners need to work on in the future. For example, a diagnostic test might provide information about a student's acquisition of verb tenses, modal auxiliaries, definite articles, and relative clause. Based on explanations, it can be concluded that a diagnostic test is a test which focused to identify learners' weakness due to they deal with troublesome in grasping the learning material since they do not pass the previous test. Indeed, it will help teachers to achieve the learning objective.

### **2.2.5.2. Achievement Test**

According to Harris and Vallete (1969) said that achievement test measures how much the learner has studied in the course of second-language instruction. However, achievement tests are usually not established around one set of teaching materials but are constructed for use with learners from a variety of different schools and programs. The example of achievement test is the afternoon tests of the College Board battery. Achievement test is correlated directly to classroom subject matters, units, or even a total curriculum (Brown, 2004). In same line, Hughes (1989) stated achievement test is directly related to language classes, their intention being to build how successful individual students, group of learners, or the courses themselves have been in acquiring objectives.

The writer summed up that the achievement test is a test designed to evaluate the individual's ability or knowledge associated with classroom subject matters, unit, or specific purposes.

#### **(1) Summative Test**

Brown (2004:48) says that "Summative test aims to measure or summarize what a student has grasped and typically occurs at the end of a course or unit of instruction. Achievement tests are often summative because they are administered at the end of a unit or term of study". Summative test is usually administered at the end of class term of study. It might be designed and administered by ministers of education, official examining boards, or by members of teaching institution. The content of a final achievement test should be relied directly on the specified course syllabus or on the books and other materials used (Hughes, in Hanendra; 2018).



From these descriptions, the writer concluded that summative test is a test intended to assess how far learners understood the learning material and it covers several chapters at which occurred the end of semester or units.

### **(2) Formative Test**

According to Brown (2004:6) states that formative test evaluates learners in the process of establishment their competencies and abilities with the purpose of helping them to continue that growth process. From these descriptions, the writer concluded that formative test is a test of administered to learners after they have studied one till two chapters and aimed to monitor how well they grasped the learning material even to provide a feedback in acquiring the learning objective.

### **(3) Language Aptitude Test**

According to Harrys and Vallete (1969) states the aptitude test is defined as a prognostic measure that represents whether a learner is likely to study a second language readily. It is generally given before the learners begin language study, and may be used to choose learners for a language course or to place students in sections suitable with their ability.

#### **2.2.6. Types of Test Items**

There are three types of the test items; multiple choice items, and essay items

##### **(1) Multiple choice items**

Multiple choice test items are constructed to obtain specific responses from the learners since there is only one correct answer (Harrys & Vallete, 1969). In same line, Brown (2004) as quoted by Hanendra (2018) explains the multiple choice item consist of a stem and a number of distractors (usually four), from which the student

has to choose the appropriate one. Multiple choices item is one of objective test which most widely applied in educational field. The objective test means the result of its questions has similar scores. This item consists of some primary parts: stem and options. The stem is a sentence or a question with incomplete statements. The options are divided into two, which are answer key and distractors. The answer key means the appropriate answer of the questions and the distractors are another option which can divert learners in determining an appropriate answer.

### **(2) Cloze**

Cloze usually composes of a minimum of two paragraphs in length intended to describe for discourse expectancies. The words are relieved form a passage at regular intervals every seventh word. The first to third lines are provided with no gaps (Brown in Hanenda, 2018).

### **(3) Gap-Filling**

Gap-filling is used to construct sentence completion which students read section of a sentence and then fill in by writing a phrase (Brown in Hanendra, 2018). According to Harrys & Vallete (1969) this item entails a word answer, such as brief responses to items or the filling in of incomplete elements.

### **(4) Essay**

Essay test is one kind of test item composed of 5W (what, where, why, when, who) + 1H (How) questions which requires student to explain, to describe, to elaborate, and to expand the statements using their own language.

### **2.2.7. Revised Bloom Taxonomy**

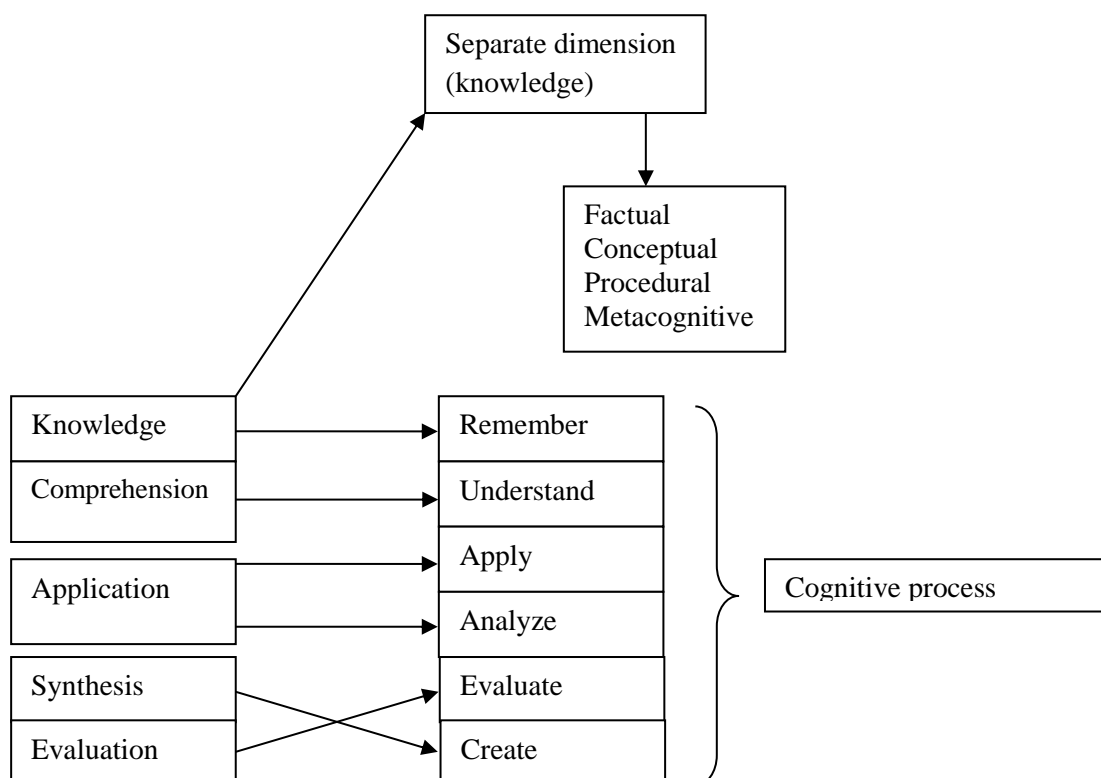
Bloom's taxonomy (1956) is one of the most well-known and acceptable taxonomy in education field. Moreover, it is usually adopted by the researcher for their purposes of study since it starts from a fundamental model of thinking skills to the highest level. Bloom's taxonomy consists of six levels of thinking skills that student's progress in the learning process. These six levels are remembering, understanding, and applying which included in lower order thinking skill (LOTS). Meanwhile, analyzing, evaluating, and creating are classified in higher order thinking skills (HOTS). Remember defined as resuming relevant knowledge from long-term retention. Understanding has meaning as design meaning from instructional messages; containing oral, written, and graphic communication. Applying has defined as bringing out or use a procedure in a provided situation. Analyzing is breaking the material into its constituents sections and ascertain how the parts correlate and to one another and to an overall structure or intention. Evaluating means making decisions relied on criteria and standards and Creating is defined as gathering elements to form a coherent or functional whole; arranging elements into a new pattern or structure.

In 1990, a former student of Bloom named Lorin Anderson has developed his theory and well-known as new version of Bloom Taxonomy or Bloom's Revised Taxonomy and it was published in 2001. It had two transformations: (1) replacement of nouns into verbs, and (2) substitution two upper levels. Those stages referred to evaluating and creating levels. At the Bloom's taxonomy old version,

evaluation was sixth stage of cognitive levels. Meanwhile, the fifth stage was synthesis.

Anderson classified those cognitive domains into two categories: lower order thinking and higher order thinking levels. The stage of remembering, understanding, and applying includes lower order thinking skills. The higher order thinking levels consist of analyzing, evaluating, and creating.

Singh (2019) stated that Bloom's taxonomy helps teachers to contextualize the stages thinking of thinking skills covered in each course and assessment. Moreover, the categorization and construction of exam items should start from lower to higher-order thinking skills. It means the questions of the English National Standardized Based School Exam item should encompass lower to higher order thinking levels which intended to increase learner's critical thinking.



**Figure 2.1**

**Structural changes from Bloom to the Anderson and Krathwohl revision  
(Anderson & Krathwohl, 2001)**

**2.2.8. Higher Order Thinking Skill**

The higher order thinking skill (HOTS) is three upper cognitive process of Bloom's taxonomy by Anderson and Krathwohl (2001). These are analysis, evaluation and creation. These skills are important especially to the learners since they have to practice how to think critically, logically, and creative to generate idea in complexity problems. Higher order thinking skills are not just significance for getting through education but also are critical for getting through life (William, 2003: 8) Likewise, (King, Goodson, and Rohani: 2004) defined high-level thinking skills (HOTS) as a critical thinking skills consequent, reflective, metacognitive and creative which these abilities will enhance when people have problems that are unfamiliar, uncertainties or a new phenomenon that entails solutions that have never been done before.

Brookhart (2010) divided into three categories: (1) those that explain higher-order thinking in terms of transfer, (2) those that explain it in terms of critical thinking, and (3) those that explain it in terms of problem solving.

a) Transfer

Two of the most significance educational purposes are to encourage retention and to encourage transfer (which, when it denotes meaningful learning retention entails that students remember when they have studied, whereas transfer entails learners

not only to remember but also to be reasonable and be able to use what they have learned. (Anderson et.al in Brookhart 2010).

b) Critical Thinking

Critical thinking is plausible, reflective thinking that is focused on determining what to believe or do (Norris & Ennis, 1989: 3). Critical thinking as “artful thinking”, which includes reasoning, questioning, and exploring, observing and explaining, comparing and associating, discovering complexity, and investigating viewpoints (Barahal in Brookhart, 2010)

c) Problem Solving

A student incurs problem when he wants to reach a certain result but does not automatically recognize the precise path or solution to reach it. The problem to solve is how to reach the desired purpose. Because a student cannot automatically identify the appropriate way to reach the desired goal, she must apply one or more higher-order thinking processes. These thinking processes are named problem solving (Nitko and Brookhart, 2007:215) in Brookhart (2010).

Tomei (2005) as quoted by Ahmad (2016) defined HOTS as thinking levels which involve the alteration of information and ideas. This alteration occurs when students analyze, integrate facts and ideas, synthesize, generalize, describe, or draw some inference or interpretation. Manipulating information and ideas through these processes permits learners to resolve problems, achieve understanding and uncover new meaning. It is worth noting that higher levels of thinking takes place when students “search beyond the content they are reading, to find out the answer or

achieve comprehension” (Razmjoo & Madani, 2013) in Ahmad (2016). Moreover, higher order thinking skill is to mean a personal’s ability to relate, regroup, extend and or apply the available information to attain a given intention or find solution to non-routine problems (Mitana, et al: 2018).

From the explanation above, the writer defined the higher order thinking skills as one of important components in learning process which students are required to analyze, to evaluate, to create the diverse questions and able to adopt their knowledge into the new situation.

#### **2.2.9. Standardized Test**

Brown (2004:104) defines a standardized test is an assessment equipment for which there are uniform method for administrations, design, scoring, and reporting which includes the norm-referenced test. The purpose of which is to place students on a continuum across a range of scores and to distinguish test-takers by their relative thinking, Brown (2004:67).

In addition, Ahmad (2016) stated that standardized test is designed to examine the test-takers’ mastery in primary parts of the curriculum in general and the result functions as a portrait of our quality of education.

From explanations above, it can be concluded that standardized test is a test which has in a very uniform manner since its time, scoring, and questions of the test are similar and intended to assess the individual’s relative thinking.

### **2.2.10. National Standardized School Examination**

In accordance to Regulation of National Standard Education Council number: 0048/BSNP/XI/2018 in the academic year 2018/2019, The National Standardized School Exam hereinafter abbreviated to as USBN, is an activity to examine learners competency achievement administered by the Education Unit with reference to the Competency Standards of Graduates to acquire recognition for learning achievement.

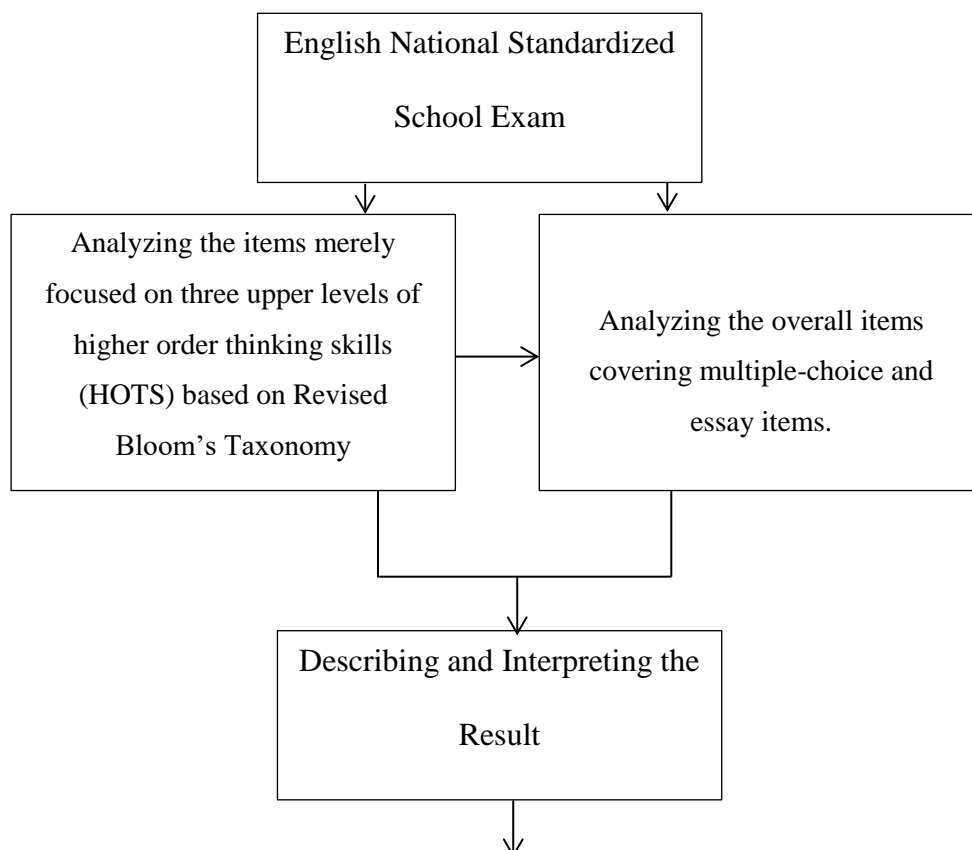
The National Standardized School Exam is designed by the Teacher Working Group, or it is commonly named as MGMP. Similar with the National Examination, it becomes the main indicator of the learner's graduation. Nevertheless, it covers all subject matters. Meanwhile, the National Examination to the middle school only concentrates on four courses: Indonesia, English, Mathematics, and Science. Based on its form, there are three types of National Standardized School Exam, which are (1) Computer Based Tested, (2) Paper-Based Tested and (3) Combination Based Tested.

The English National Standardized School Exam is administered to ninth graders of SMP Negeri 36 Kota Semarang in the academic year 2018/2019 has an amount of 45 questions, which consist of 40 multiple choice and 5 essay item test. It encompasses reading and writing skills. It included in the paper-based test.

The writer summed up that the National Standardized School Examination is a standardized test which assesses students' competency achievement referring to the Competency Standard of Graduate that encompasses all subject matters.



### 2.3.Theoretical Framework



Conclusion and Suggestion

**Figure 2.2**

**Theoretical Framework of the Study**

The framework presented that a good test contains higher order thinking skill in terms of analyzing, evaluating, and creating. After collecting the data, the writer evaluates the English National Standardized School Exam based on the Higher Order Thinking Skill (HOTS) Bloom's Revised Taxonomy. The researcher divided into LOTS and HOTS in the previous, then only examined higher order thinking questions. Afterward, the writer analyzed the whole questions item within multiple-choice and essay items. The writer examined it used instrument was developed by Widana (2017). All of result of the finding was presented in the form of diagram and describe in the shape of explanations. Eventually, the writer drawn the conclusion and provide the suggestion for the further researchers.

As cited by Brown & Rodgers (2002: 289) in Ahmad (2016) evaluation is defined as the process of finding to build the value of something for some intentions. According to Hanendra (2018) evaluation is one of the essential components of teaching-learning process, as a systematic collecting of information. One of ways to evaluate process within teaching or learning is a test. According to Brown (2004: 3) test is a method of examining an individual's ability, science, or performance in a given domain.

Brookhart (2010) divided into three categories that explain higher-order thinking in terms of transfer, critical thinking, and problem solving. Moreover, William

(2003: 8) said that higher order thinking skills are not just significance for getting through education but also are critical for getting through life. In same in line, King. FJ, et. al. (2012) defined high-level thinking skills (HOTS) as critical thinking skills consequent, reflective, metacognitive and creative whose capabilities will enhance when people have problems that are unfamiliar, uncertainties or a new phenomenon that requires solutions that have never been undertaken before.

Brown (2004: 104) defines a standardized test is an assessment equipment for which there are uniform procedures for administrations, design, scoring, and informing which includes in a norm-referenced test. The aim of which is to place students on a continuum across a range of scores and to distinguish learners by their relative thinking (Brown, 2004:67)

According to Education National Standard Council (BSNP) number: 0048/BSNP/XI/2018 in the academic year 2018/2019, the National Standardized School Exam hereinafter referred to as USBN, is an activity to measure learners competency outcomes which administered by the Education Unit with reference to the Competency Standards of Graduates to acquire recognition for learning achievement.



## CHAPTER V

### CONCLUSIONS AND SUGGESTIONS

This final chapter of the research discusses conclusions and suggestions of the study. The conclusions provide the summary of data analyzed in the previous chapter. Besides, the writer represents some suggestions for the readers in conducting a research.

#### 5.1 Conclusion

In this study, the writer aimed to describe to what extent the English National Standardized School Exam assesses higher order thinking skills in terms of analyzing, evaluating and creating. This research also purposed to describe how the higher order thinking skills are achieved in the English National Standardized School Exam of SMP Negeri 36 Semarang in the academic year 2018/2019. The report of data analyzed represented as below.

Regarding to result, the item achieved percentage of 22.2% with ten frequencies. All of them are found in the reading test on the English National Standardized School examination administered to the ninth graders of SMP Negeri 36 Semarang. Moreover, analyzing skill became most prominent among all higher order thinking levels.

Regarding to result, there are two items test which includes evaluating level. They got the percentage of 4.4. Nevertheless, it was barely found in this writing test of the English National Standardized School examination administered to the ninth graders of SMP Negeri 36 Semarang.

The writer cannot find the item assessed higher order thinking skill in terms of creating. It means that there is a null distribution of creating level.

All multiple-choice items have fulfilled those criteria which are: (1) interesting stimulus, and (2) contextual stimuli. Meanwhile, the aspect of implied answers has 25 frequencies with a percentage of 62.5%. All of the questions, the category of higher order thinking achieves ten frequencies with the percentage of 25. They belong to analyzing level. In addition, all of questions in the essay test cover 12 criteria; (1) compatibility with indicators, (2) elements SARAP3K, (3) interesting stimulus, (4) contextual stimuli, (5) implied answers, (6) including clear instructions, (7) containing guidance for scoring or accordance with the criteria, (8) the function of picture, diagram, etc., (9) independently item, (10) using appropriate language, (11) not using the language of the applicable local and (12) applying a communicative sentence. The categories of higher order thinking levels and answering in the form of descriptions have the similarity results. They obtain the percentage of 40 with two frequencies.

Based on the summary of the findings above, the writer concluded the cognitive domains of the item are mostly on lower order thinking levels which has percentage 73.4%. Understanding level got the highest frequency among all levels with 21 questions (46.7%). Remembering level was obtained in 9 questions (20%) and applying skill was only getting in 3 questions (6.7%). Moreover, this item questions was not well-designed for the less of presence higher order thinking skill than the LOTS.

## 5.2 Suggestions

After interpreting the result of data analysis mentioned in the fourth chapter, the writer gives some suggestions for the government, the teacher, the Ministry of Education and Culture of Indonesia and the further researcher as follows:

For teachers, they should enrich some exercises that go beyond lower order levels and to cover a higher order thinking questions in terms of analyzing, evaluating, and creating. They can adopt Bloom's revised taxonomy in their learning objectives not only for exams but also for real life situations, so that it can foster students to have making the decision ability, solving problems, creativity and higher order thinking skills. Teachers should also integrate the technologies with methods of learning in order to enhance their teaching strategies in the language classroom.

For the Ministry of Education and Culture of Indonesia who collaborate with the English supervisors should conduct more workshops and trainings to educate the English teachers in order to build up and expand students' thinking skills. In line with these activities, teachers are expected to extend their knowledge of higher order thinking skills and its implementation in designing the test items.

For the next researchers, who intend to carry out a similar research, they can use this study as their references. They can also investigate another object, but it is still related to either bloom taxonomy or higher order thinking skill.

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