

**AN ANALYSIS OF HIGH ORDER THINKING SKILL (HOTS) IN
ENGLISH QUESTIONS OF JUNIOR HIGH SCHOOL NATIONAL
EXAMINATION 2018/2019**

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**AN ANALYSIS OF HIGH ORDER THINKING SKILL (HOTS) IN
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ABSTRACT

Ade Dama Yanti. 2161121001. An Analysis of High Order Thinking Skill (HOTS) in English Questions of Junior High School National Examination 2018/2019. A Thesis. English Education Program. State University of Medan, 2020.

This study aimed to find out the level of thinking skills and to describe out the thinking skills distributed in English National Examination for Junior High School academic year 2018/2019 based on HOTS of Revised Taxonomy Bloom (2001). There are three level thinking skills in HOTS, the first is analyze skill which has the subskills of differentiating, organizing, and attributing. The second is evaluate skill which has the subskills of checking and critiquing. The third is create skill which has the subskills of generating, planning, and producing. In solving the problems, this study used descriptive qualitative method. The data were obtained through documentation. There were four packages of the English National Examination which consisted of 50 questions in every package. The total of the questions were 200 questions. In analyzing the data, the researcher used the techniques of observation and the documentary analysis. The findings showed that the four packages applied analyze skill and evaluate skill of HOTS which were 18,5% of analyze skill and 4% of evaluate skill out of 200 questions. While for the distribution of the subskills, for the analyze skill had all the subskills except the differetiating skill and for the evaluate skill had all the subskills in the questions of the four packages.

Keywords: English Questions, HOTS, National Examination

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I. INTRODUCTION

A. Background of the Study

Assessment is one of eight National Education Standards set by government (Permendiknas No. 20, 2007). In Guidelene Book of Assessment for Junior High School was written by Tim Direktorat Pembinaan SMP which issued by Kemendikbud (2017) stated that, "assessment is a process of collecting and processing information for measuring the achievement of students' learning outcomes." Assessment is need to be done to measure how good the competence which students have achieved in learning process. In obatinig the maximum result of the assessment about the students' learning process which describes the actual process and the real result, it needs intrument in measuring it. The instrument which is often used in assessment to measure it is test.

Test is question or task which was planned to obtain information about the cognitive abilities of students" (Ferd, 2017). In terms of language testing, it serves as a means of measuring students' proficiency in particular skills of the language. Standardized test is employed to measure the students' mastery on basic parts of the curriculum in general and the result functions as a portrait of the education quality. An example of a large-scaled standardized test administered in Indonesia is the National Exam (abbreviated into NE) held annually throughout the country to measure students' achievement at the end of a learning period in each level. In English National Examination (abbreviated as ENE), one of subjects that was examined in NE, for Junior High School which the skills tested consist of reading comprehension and writing in a multiple-choice format. in reaching the abilities, students must be able to have critical thinking which can be obtained by solved high order thinking skill (HOTS) questions. According to Hamzah and Masri (in Arini, 2014 : 2) HOTS would compose students to be more independent in finding or solving something because it is going to require students to be creative and critical thinking process such as analyzing until solving the complicated problem.

While in some researchhs which the researcher found there didn't indicate the subskills from the main skills of HOTS. Also in analyzing the questions, there were some miss questions which some should count into HOTS or some not. That because the questions put in same level perception cognitive level whereas HOTS questions aren't based on the difficult question or not but based on the skill which is needed in solving the questions and also the level cognitive for junior students is different with senior students. Hence, students need to be trained in terms of thinking skills by giving learners about the

type of HOTS that can be used to improve the skills of students. The matter is made by applying basic competencies that can be used to measure the high order thinking skills of students. Given the role of assessment that can motivate and challenge for the improvement of quality of competitiveness of education. Therefore, the researcher is interested in doing research entitled "An Analysis High Order Thinking Skill (HOTS) in English Questions of Junior High School National Examination in 2018/2019".

II. REVIEW OF LITERATURE

A. Theoretical of framework

In supporting the idea of this study, the researcher presented some books containing information and theories that helped the researcher to design this thesis proposal. Theories are very important because they are used as the basic foundation in conducting the analysis of this research.

1. Assessment

According to Uno and Koni (SS2012) stated that, "assessment means as process to measure the students' characteristic by certain rules." They also declared some purposes and functions of assessment which were to know how good students in their learning process and the efficiency the methods that used in the process.

In assessing process, teachers may assess the students' ability to communicate by using performance tasks, such as making an oral presentation or writing report. In assessing the students' ability to read (for example), teachers may use multiple choices items on a test of reading comprehension or by asking them to read passage aloud and explain what it means. One of instrument which is often used in assessment to measure it is test. Test is a assessment tool in written or oral form in order to write or observe the students' achievement in line with the assessment target while the expected of the answer of the test can be written, oral, or deed. At school level the targets are set on the basis of National Test result.

a. Definition of Test

According to Kedar Prasad (2012) stated that, "Test is a process that is administered to measure student's ability to performance in a particular field in a certain time limit with some specific goal". Thus test means that it is a gatepost in learning teaching process. Based on Suharsimi Arikunto (2012), "the test is a series of questions or exercises as well as other tools that are used to measure skills, knowledge, intelligence,

ability or talent possessed by individual or group". So a test doesn't only measure students's knowledge in a subject that they have learned but also all the adeptness that they have got and improved.

b. Kind of Tests

Test can be categorized into some parts. According to Jatmoko (2017), here are some categories of test based on:

1. Level

a) Standardized test Standard test is test that has been undergo a standardization process, which is a process validation and reliability (reliability) so that the test is really valid and reliable which has certain purpose and for particular group. For example, National Examination, school final Examination, try out examination.

b) Non-standard test Non-standard test is test that is prepared by an educator who does not yet have professional expertise in test preparation, or those who have expertise but don't could arrange a test well, try out, do an analysis so validity and reliability have not been able to guarantee for.

2. Subjective

a) Written test Written test is a type of test which the tester in asking questions or the problem is done in writing and testee gives the answer also in writing. So, the the tester has to give appropriate questions to the testee to what the testee want to frisk. For example english national examination.

b) Oral test Oral test is a test which the tester asks questions or problems conducted by verbally and testee gives the answer verbally too.

An example of standard test which measures the achievement of students skill which also represents the course they are concerned is English National Examination. the English National examination used multiple choice items because in doing the test, it will measure the students' cognitive level which just has one correct answer and time limit.

2. HOTS

Based on Widana (2017), "HOTS questions are instruments a measurement used to measure level thinking skills high, namely the ability to thin/k that is not just remembering (recall), restate, or refer without processing (recite)" . HOTS questions in

the context of assessment measure ability: transfer one concept to another, process and apply information, looking for links from various different information, use information to solve problems, and explore ideas and information critically. Even so, questions are based HOTS doesn't mean more difficult problems than recall. The first cognitive level of HOTS is analysis, which consists of breaking knowledge down into its parts and thinking about how the parts relate to its overall structure. Students analyze by differentiating, organizing, and attributing. The second is evaluation, which is the fifth of the six processes in the revised version. It includes checking and critiquing. The third is creating, a process not included in the earlier taxonomy, is the highest component of the new version. This skill involves putting things together to make something new. To accomplish creating tasks, learners generate, plan, and produce. Here is the table of the distribution of subskills of HOTS in table 2.1.

Table 2.1. The Distribution of Subskills in Hots

Analyze		
Break material into its constituent parts and determine how the parts relate to one another and to an overall structure or purpose.		
Differentiating	Discriminating, distinguishing, focusing, selecting.	Distinguishing relevant from irrelevant parts or important from unimportant parts of presented material.
Organizing	Finding, coherence, integrating, outlining, parsing, structuring	Determining how elements fit or function within a structure.
Attributing	Deconstructing	Determining a point of view, bias, values, or intent underlying presented material.
Evaluate		
Make judgments base on criteria and standards		
Checking	Coordinating, detecting, monitoring, testing.	Detecting inconsistencies or fallacies within a process or product; determining whether a process or product has internal consistency; detecting the effectiveness of a procedure as it is being implemented.
Critiquing	Judging	Detecting inconsistencies between a product and external criteria, determining whether a product has

		external consistency; detecting the appropriateness of a procedure for a given problem.
Create Put elements together to form a coherent or functional whole: reorganize elements into a new pattern or structure		
Generating	Hypothesizing	Coming up with alternative hypotheses based on criteria
Planning	Designing	Devising a procedure for accomplishing some task
Producing	Constructing	Inventing a product

Anderson, L. W., Krathwohl, D. R., Airasian, P. W., Cruikshank, K. A., Mayer, R. E., Pintrich, P. R., ... Wittrock, M. C. (Tommy, 2019 : 155-156).

III. RESEARCH METHODOLOGY

This study conducted by using descriptive qualitative method. The writer analyzed four packages of the English National Examination for Junior High School 2018/2019. There were 200 questions which are multiple choices in four packages. Every package had 50 questions. To collect data in this study, the writer used the technique of observing and documentary analysis. In analyzing the data, the writer used HOTS theory based on Revised Taxonomy Bloom (2001).

In collecting data, there are some steps taken by the writer, they are as follows: 1). Evaluating the questions which are into HOTS questions, 2.) Classifying the HOTS questions based on the main skills of HOTS which are into analyze, evaluate, and create skills, 3.) Counting each of the results into percentage and then make the conclusion of the percentage.

IV. FINDINGS AND DISCUSSION

A. The data

Data of this research were collected from English National Examination for Junior High School Level 2018/2019. There are four packages of the test. As stated in the data and the source of data, the data were collected from all the English questions in the test from each package and analyzed by using the cognitive skills in HOTS. There are 200 questions which are 50 questions for each packages. Having the data been collected, the data were analyzed by using cognitive of domain in HOTS of Revised Bloom's

Taxonomy. The data analysis consists of levels thinking namely : analyze, evaluate , and create (Andreson & Krathwol, 2001).

B. Data Analysis

In analyzing the data of the research, the researcher used Revised Taxonomy Bloom theory of analysis based on the formulation of the problems which were stated in the previous chapter, they were:

1. The levels of high order thinking skills are applied in English National Examination for Junior High School academic year 2018/2019

From what the writer had analyzed, all packages of the English National Examination 2018/2019 have HOTS questions which consist levels of analyze skill questions and evaluate skill questions. In doing the research, the researcher found that the dominant HOTS questions from all of the packages are the skill of the analyze skill. There are various amount of the analyze skill questions and the evaluate skill questions for each packages. Here was the **Table 4.1**.

Package	High Order Thinking Skill	Score (Percentage %)
1.	Analyze	$7/50 \times 100 = 14\%$
	Evaluate	$2/50 \times 100 = 4\%$
2.	Analyze	$7/50 \times 100 = 14\%$
	Evaluate	$2/50 \times 100 = 4\%$
3.	Analyze	$7/50 \times 100 = 14\%$
	Evaluate	$2/50 \times 100 = 4\%$
4.	Analyze	$8/50 \times 100 = 14\%$
	Evaluate	$2/50 \times 100 = 4\%$
Total	Analyze	$29/200 \times 100 = 14,5 \%$

	Evaluate	$8/200 \times 100 = 4\%$
	Total	$37/200 \times 100 = 18,5\%$

2.) The distribution of the HOTS in the English National Examination at Junior High School level in academic year 2018/2019

The HOTS questions in that packages have two skills which are analyze skill and evaluate skill. The analyze skill questions in the four packages consist of the subskills of organizing and attributing. While the evaluate skill in the packages consist of the subskills of checking and critiquing. Here is the figure of the distribution of the HOTS questions.

Here is the **Table 4.2**.

The Packages of the HOTS questions	Analyse skill			Evaluate Skill	
	Differentiating	Organizing	Attributing	Checking	Critiquing
Package 1		1	6	1	1
Total		14%		4%	
Package 2		1	6	1	1
Total		14%		4%	
Package 3		1	6	1	1
Total		14%		4%	
Package 4		1	7	1	1
Total		18%		4%	

C. Research Finding

Findings After analyzing the data and counting the percentage on the English National Examination questions for Junior High School 2018/2019, the findings of this research can be presented as follows :

1.) Based on the analyze of the levels skill of high order thinking skills are applied in English National Examination for Junior High School academic year 2018/2019, comprise 37 questions or 18,5% HOTS questions out of 200 questions in the tests. The result of the data analysis also infers that the analyze skill gets 29 questions out of 200 questions. While the evaluate skill gets 8 questions or 4% out of 200 questions too. Moreover, from the data analysis the researcher couldn't find the create skill in the HOTS questions. It shows that the HOTS questions in the four packages have two cognitive skill levels which are the analyze skill and evaluate skill. It also interprets that the HOTS questions must be concerned because there is less questions belong to HOTS.

2.) The distribution of the HOTS in the questions comprises amount various skills in each packages whose 50 questions for each. In the first package, there were seven analyze skill questions or 14% which divided to one question to the subskill of organizing, and six questions to the subskill of attributing in HOTS. While for the evaluate skill, there were three questions or 4% which were a question to the subskill of checking and a question to the subskill of critiquing in HOTS. In the second package, in the analyze skill there were seven questions or 14% which were a question to the subskill of organizing and six questions to the subskill of attributing. Also for the evaluate skill, there were two questions or 4% which were one question to the subskill of checking and one question to the subskill of critiquing in HOTS. Another package, the third package for the analyze skill there were eight questions or 14% which were one question to the subskill of organizing and six questions to the subskill of attributing and for the evaluate skill, there were two questions or 4% which were one question to the subskill of checking and one

question to the subskill of critiquing in HOTS. The last package, in the fourth package there were eight analyze skill questions or 16% which consist of one question to the subskill of organizing and seven questions to the subskill of attributing in HOTS. In addition as the evaluate questions in that package there was one question or 4% to the subskills of critiquing and checking in HOTS. From the explanation above, it can be seen that not all the subskills in HOTS were applied in each packages. Also the amount of the subskills questions have different for each packages. However, it could be better if the each packages applies all the subskills and has same amount of the HOTS questions for each packages.

D. Discussion

The data were taken from on the English National Examination questions for Junior High School 2018/2019, the researcher only focus on analyzing the English questions which were in the four packages. The researcher analyzed the questions based on the cognitive levels of HOTS of Revised Blomm's Taxonomy. The cognitive levels of the HOTS are analyze skill, evaluate skill, and create skill. From the research, it was proven that the HOTS questions in the four packages had less questions. The HOTS questions in the packages were only 37 questions or 18,5% out of 200 questions. The HOTS questions divided into two cognitive skills questions which were analyze skill gets 29 questions or 14,5% and evaluate skill gets 8 questions or 4%. It showed that the questions in the four packages were dominant with LOTS questions. Even the HOTS questions were not until a half of the amount of the questions. Meanwhile based on the Buletin BSNP Vol.XIII/No.2/ June 2018 page 5, Ministry of Education and Culture informed about the propotion of taxonomy bloom questions for NE. The propotion of the questions which the government has determined are as the follows, remembering-understanding 20%, applyinganalyzing 55%, evaluating 15%, and creating 10%. In fact, whether the analyze skill and evaluate skill questions didn't fulfill the criteria in the every

packages. The other thing is the distribution of HOTS. There were just two cognitive skills in the HOTS questions which were analyze skill and evaluate skill. While based on the Revised Bloom's Taxonomy (2001) there are three cognitive skill levels which are analyze skill, evaluate skill, and create skill. For analyze skill there are three subskills which are differentiating, organizing, and attributing. While for evaluate skill there are two subskills which are checking and critiquing. Last, the create skill has the subskills of generating, planning, and producing.

V. CONCLUSION AND SUGGESTIONS

A. Conclusion

Based on the research results and discussions, there are conclusions that can be drawn:

1. All of the packages have HOTS questions which consist of analyze skill and evaluate skill. The dominant cognitive skill in the HOTS question is analyze skill. The analyze skill questions in each packages are 14%, 14%, 14%, and 16%. On the other hand for the evaluate skill, there are 4% for each packages. Furthermore, the analyze skill questions from all of the packages are almost 20% while the criteria for HOTS questions in the National Examination should be applying-analyzing 55% and the criteria for the evaluate skill questions in the National Examination is 15%. So it can be conclude that a half of 55% is for analyze skill questions which didn't apply in the examination and also for the evaluate skill. In addition, there is not any question of create skill while there should have been 10% of the create skill question in the National Examination.

2. Another thing, the distribution of the subskills in the HOTS questions didn't apply thoroughly. For analyze skill, there isn't the subskill of differentiating in each packages. While for evaluate skill, there isn't the subskill of checking in the fourth package. So, the subskills of the HOTS didn't apply thoroughly in the packages of English National Examination for Junior High School 2018/2019.

B. Suggestion

After doing the research, the researcher would like to offer some suggestions:

1. HOTS questions are needed to more apply in the English National Examination which should have the three cognitive skill levels in the questions which are analyze skill, evaluate skill, and create skill.

2. Furthermore, it would be better if the every HOTS questions in the test consists of all the subskills in HOTS questions with the criteria as what as the government stated. In addition, the HOTS questions are good to apply in a test because it will increase the critical thinking of students and also the teachers.

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