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#### ANALISIS SOAL-SOAL KEMAMPUAN BERPIKIR TINGKAT TINGGI DALAM PEMAHAMAN MEMBACA PADA UJIAN AKHIR SEKOLAH DI BIMA

#### AN ANALYSIS OF HIGHER ORDER THINKING SKILL QUESTIONS IN READING COMPREHENSION IN SCHOOL FINAL EXAMINATION IN BIMA

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#### ARTICLE INFO

#### ABSTRACT

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Penelitian ini bertujuan untuk mengetahui distribusi pertanyaan keterampilan berpikir tingkat tinggi, menggambarkan proses proses kognitif yang ditunjukkan daalam soal HOTS, dan mengetahui porsi porsi soal HOTS dalam dua paket ujian sekolah di Bima. Analisis konten Analisis konten digunakan untuk memeriksa 86 butir soal tes pemahaman membaca dalam ujian akhir sekolah ujian akhir sekolah menggunakan taksonomi Bloom versi revisi. Data kualitatif Analisis data kualitatif diterapkan pada butir-butir soal pemahaman bacaan. Publik dokumentasi, observasi tidak langsung, dan wawancara semi-terstruktur dilakukan untuk mengumpulkan data. dilakukan untuk mengumpulkan data. Sumber data dikumpulkan dari soal tes pemahaman membaca membaca pemahaman dan kartu analisis. Dalam menganalisis data, digunakan analisis kualitatif model Miles, Huberman, & Saldana (2014) dengan tiga tahap. Temuan menunjukkan bahwa distribusi pertanyaan keterampilan berpikir tingkat tinggi lebih rendah daripada pertanyaan keterampilan rendah dibandingkan dengan pertanyaan keterampilan berpikir tingkat rendah. Soal HOTS hanya memperoleh 6 dari 86 soal sedangkan sedangkan sisanya diindikasikan sebagai LOTS. Keterampilan menganalisis memiliki distribusi tertinggi di antara keterampilan HOTS: 4 pertanyaan, keterampilan mengevaluasi memiliki 2 soal, sedangkan keterampilan mencipta tidak ditemukan. Sebaliknya, proses kognitif spesifik yang paling banyak digunakan dalam keseluruhan soal adalah keterampilan menafsirkan dan mengenali dengan frekuensi 18 soal, dan keterampilan membedakan dan membedakan dan keterampilan mengkritik sering muncul muncul dalam tes sebagai proses kognitif spesifik soal HOTS.

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#### **INFO ARTIKEL**

Koresponden

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#### This study is aimed at finding out the distribution of higher order thinking skill questions, describing the specific cognitive processes demonstrated under HOTS novisrirahmi@gmail.com questions, and finding out the portion of HOTS questions in two school examination packages in Bima. Content

Kata kunci: Higher order thinking skill, lower order thinking skill, reading comprehension, school final examination

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analysis was used to examine 86 reading comprehension test items in school final examination using Bloom's taxonomy revised version. Qualitative data analysis was applied to the reading comprehension question items. Public documentation, indirect observation and a semistructured interview were performed to collect the data. Data source were collected from reading comprehension test items and analysis card. In analyzing the data, qualitative analysis of Miles, Huberman, & Saldana (2014) model with three phases was applied. The findings indicated the distribution of higher order thinking skill questions are lower than lower order thinking skill questions. HOTS only obtain 6 out of 86 questions while the rest of questions are indicated as LOTS. Analyze skill has the highest distribution among HOTS skills: 4 questions, evaluate skill has 2 questions, while create skill is not found. On the contrary, the most used specific cognitive processes in the whole questions are interpreting and recognizing skill with the frequency of 18 questions, and differentiating and critiquing skills frequently appear in the test as the specific cognitive processes of HOTS questions.

ABSTRAK

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### **INTRODUCTION**

Indonesian government has decided to use HOTS questions for National Examination in 2018. Higher Order Thinking Skills or abbreviated as HOTS was first introduced by Benjamin S. Bloom and his co-workers in a the book entitled "Taxonomy of Educational Objectives" in 1956. There are three original domains of taxonomy bloom consisting of cognitive, affective, and psychomotor domains. Initially, the handbook focuses on the cognitive part. Bloom (1956) categorized cognitive skills into several classifications. The classification of educational objectives starts from simple to complex level of educational objectives. Bloom did the sorting based on the students' level of thinking. The six levels of Bloom's taxonomy are knowledge, comprehension, application, analysis, synthesis, and evaluation. The first to third skills are included in LOTS or Lower Order Thinking Skills. On the opposite side, HOTS stands at the highest level. This includes analysis, synthesis, and evaluation. In studying a particular subject or material, each skill must be performed by students starting from simple to complex. The higher the skill, the higher the level of thought required.

Anderson and Krathwohl revised the taxonomy bloom in 2001. Both are students and also partners of Benjamin S. Bloom, who is the inventor of cognitive taxonomy. Anderson et al., (2001) explained a more useful and comprehensive addition of how the classification acts upon the different types and levels of knowledge as the main differences between their version and Bloom's version. The latest version is formed into verbs rather than nouns, making them as remember (C1), understand (C2), apply (C3), analyze (C4), evaluate (C5), and create (C6). Renaming some skills is also one of the differences. If Bloom's version has knowledge, comprehension, and synthesis, the newest one has changed them to remember, understand, and create. The last differences are re-positioning of the last two categories. In the latest version, the last two categories are evaluate and create. It is unlike the Bloom' version where the last two categories are synthesis and evaluation. Based on Bloom's taxonomy revised version, HOTS was converted into skills such as analyze, evaluate, and create. These three skills are included in HOTS since students need a higher level of thinking to do so.

The HOTS questions test students' higher level of thinking. Along with HOTS, students are expected to solve the real-life problem. Anasy (2016) stated that HOTS helps students to make opinion and logical decision toward their problems. HOTS is also related to PISA which stands for Programme for International Student Assessment. I Wayan (2017) explained that the ranking of Indonesian students in PISA is deficient. Indonesia was ranked 63 out of 72 countries in 2015. This indicates that the ability and knowledge of Indonesian students in reading, mathematics and science is still low. In PISA 2018, the results obtained were even more disappointing. The score was decreased. Among the three aspects, the reading ability score was the lowest. Indonesia was ranked 75 out of 80 countries.

The problem was around whether students are capable or not to answer those kinds of HOTS questions. HOTS questions are not yet popular among students in Indonesia, especially junior high school students. HOTS is not used for National Examination before 2018. These kinds of question are not used as many as LOTS (Low Order Thinking Skill) questions. The Ministry of Education and Culture of the Republic of Indonesia, Muhadjir Effendy announced that the result of junior high school National Examination declined due to HOTS questions (Yulaika: par 2). It can be concluded that HOTS questions are still deemed difficult to apply to junior high school students.

## METHOD

## **Research Design**

This research belongs to qualitative research. Shank (2006) stated that qualitative research is a planned experience study into meaning. It indicates that the researcher is attempted to analyze something that people experienced and make meaning from it. This present study aims to evaluate HOTS items in reading comprehension of School Final Examination and investigate the specific cognitive processes under HOTS questions.

Since this study analyzes the content of question text, then the content analysis was used. Content analysis is often used for qualitative research techniques. Hsieh &

Shannon (2005) stated that qualitative content analysis is one of the research methods used to analyze the text data.

Content analysis aims to provide knowledge for a particular phenomenon (Dow ne & Wamboldt, 1992). The researcher interpreted the findings of the research to provide the knowledge for a certain topic. The interpretation process might be influenced by the researcher's background, culture, and experience. The investigated text was various such as a books, essays, articles, newspapers, documents, and so on. In this case, it was analyzed the existence of HOTS concept in reading comprehension in school final examination.

#### Data and Source of Data

Creswell (2014) claimed that the data in qualitative are in the form of text and image data. The text can be various such as books, essays, articles, newspapers, documents, and so on. In content analysis, any written text can be a source of data (Bengtsson, 2016). Regardless of type, written text can always be an adequate data source as long it can be analyzed.

The first data source of this study were the items on the reading comprehension test of School final examination from Bima. The researcher used two packages of English school final examination to seek the differences. Zhang & Wildemuth (2009) stated that qualitative content analysis text are usually purposively selected by researchers to answer the research questions. These tests were used to collect the reading comprehension questions to evaluate the distribution of HOTS and the specific cognitive processes reflected in HOTS category.

The second data source from this study were the data collected after interviewing the respondents. The data were used to support the findings of this research.

#### **Research Procedure**

According to Zhang & Wildemuth (2009), the qualitative content analysis procedure consists of eight steps. The first step is preparing the data. The data must be converted into written text. If the data is already in the form of written text, the selection of the content must be adjusted to what you want to know. The second one is defining the unit of analysis. It refers to the basic unit of the text that will be grouped during content analysis. The procedure in this research is described below.

- 1. Preparing the data, the researcher used two packages of school final examination from Bima. Each question of reading comprehension was analyzed.
- 2. The unit of analysis was the individual questions of reading comprehension, which contains HOTS.
- 3. The coding scheme used in this research was the categories that the researcher developed from the revised version of Higher Order Thinking Skill by Anderson & Krathwol (2001)
- 4. Then, all of the reading comprehension questions were coded one by one by using a coding scheme.
- 5. After coding the entire text, the researcher rechecked the consistency of the code.
- 6. The next step was concluding the coded data by presenting the data in frequency distribution tables.
- 7. The last step was reporting the methods and findings by using a balance description and interpretation.

### Data Collection

The data collection technique consisted of various ways that are used to collect data. Documentation analysis and indirect observation were used in this study as data collection techniques. Documentation analysis is a procedure for reviewing and evaluating the documents (Bowen, 2009). Documents are divided into two types, namely public documents and private documents. Public documents can be in the form of minutes of meetings or newspaper while the private documents can be in the form of journals, diaries, or letters. Researcher in this case used public documentation, such as reading comprehension questions on final school examination sheets.

Indirect Observation is the second technique of collecting data. Ciesielska & Jemielniak (2017) stated that indirect observation is observation that rely on other people's observations, documentation, videos, etc. The researcher found and collected related information for this research in the form of documents, note, etc.

Interview is the third technique to collect the data in this research. Griffe (2012) stated that interview is an organized conversation among people that has its arrangement, goals and format in order to find the information. In doing the interview, the researcher asked the questions to the respondent. In this case, there was only one respondent. The respondent in this study is one of the English teacher in Junior High School in Bima. This study used a semi-structured interview. It is usually used in a qualitative research.

Based on the explanation above, the data collection procedure in this study can be presented as follows:

- 1. Selecting and reading the reading comprehension packs of school examination in Bima as the primary data in this study
- 2. Identifying the reading comprehension items
- 3. Matching against the reading comprehension items with the categories in the analysis card
- 4. Categorizing the data based on the analysis card
- 5. Organizing the data and placing it into the datasheets.
- 6. Interviewing the correspondent to complete the data.

### Data Analysis

Data analysis used in this study was the qualitative analysis with the three phases. A similar study was also carried by Miles, Huberman, & Saldana (2014) concerning these phases. They describe data analysis of three phases: data condensation, data display, and drawing a conclusion. The steps in analyzing the data in this research was presented as follows.

- 1. Code the data based on the theory of revised Bloom's taxonomy by Anderson & Krathworl (in revised edition).
- 2. Determine the distribution of LOTS and HOTS, as well as the specific cognitive processes found in the reading comprehension items.
- 3. Find out the portion of HOTS in two packs of school final examination by using the percentage formula. During the process of collecting data, a qualitative study needs to find the numbers by using formula. These numbers describe a phenomenon that is being investigated (Rahmat, 2009). The formula for this research model was:

$$\mathbf{P} = \frac{\sum \mathbf{q}}{\sum r} \mathbf{X} \ \mathbf{100} \%$$

Notes:

P%= the gained percentage that is gained for every investigated category.

 $\sum_{i=1}^{i} q^{i}$  = the score number that is gained for every investigated category.

 $\sum r$  = the amount of maximal score for every investigated category.

To categorize the result, the researcher used the formula as follows:

Table 1. Score Category	of Assessment
-------------------------	---------------

80% - 100%=Good
60% - 79% = Fair
50% - 59% = Sufficient
0 – 49% = Poor

- 4. Transcribing the interview from the correspondent.
- 5. Displaying the distribution of LOTS of HOTS in reading comprehension test items in school final examination. The researcher used the format table as follows:

Table 2 Format Table for the Distribution of LOTS and HOTS

	Deeding communication	Lower Order Thinking			Higher-Order Thinking			
No	No items		Skill (LOTS)			Skill (HOTS)		
	nems	C1	C2	C3	C4	C5	C6	
1.								
2.								

6. Displaying the specific cognitive processes that were found in reading comprehension items. The format table as presented below;

Table 3. Format Table for Specific Cognitive Processes Under LOTS and HOTS Questions

No	Remember (C1)		Frequency
1.	Recognizing	P1	
		P2	
2.	Recalling	P1	
		P2	

7. Presenting the portion of HOTS in both packages of school final examination

 Table 4. Format Table for A Portion Of LOTS And HOTS In Two Packages Of School

 Final Examination

No	Packages	Cognitive Process		Frequency	Percentage	Total
1	Package 01	LOTS				
	-					
		HOTS				
2	Package 02	LOTS				
	-					
		HOTS				

#### 8. Drawing a conclusion based on the result and interpretations

#### **RESULT AND DISCUSSION**

# The Distribution of LOTS and HOTS Questions in Reading Test Items in School Final Examination

There were in total of 45 questions in each package of English school examination in Bima. It consisted of 40 questions in multiple-choices and some questions in essay. Both packages had the same amount of questions, but there were eight different questions in total. This research limited only on reading comprehension items. Thus, the researcher analyzed solely on the reading comprehension items. Out of 45 questions, there were 43 of reading comprehension items, so total of the questions was 86 questions. the items then were analyzed using the theory of revised bloom's taxonomy by Anderson and Krathworl.

Higher-order thinking skills are divided into three skills, namely analyze, evaluate and create. The lower-order thinking skills include the skill of remember, understand and apply. By analyzing all of reading comprehension items, the researcher found out the distribution of LOTS and HOTS in both packages of English school examination in Bima.

Based on the data analysis, the portion of LOTS questions is higher than HOTS questions. Each HOTS and LOTS respectively obtained 6.9% and 93.1%. It was indicated that there were 80 out of 86 LOTS questions while the amount of HOTS questions only 6 out of 86 questions. Besides, it was revealed that the cognitive process most widely used was understand skill (C2). It was in the first position with the frequency of 54 out of 86 questions or 62.8%. in other words, it was half of the whole questions. The second dominant cognitive process used in the school examination was remember skill (C1) with the total number of questions was 18 out of 86 questions or 21%. The third skill is apply skill (C3) with the frequency of 8 out of 86 questions, equal to 9.3%. Next, The fourth and fifth one is analyze (C4) and evaluate skill (C5). Both skills have the frequencies of 4 and 2 out of 86 questions, or equal to 4.6% and 2.3%. The last skill was create skill. Related to reading skill, the researcher did not find anything in reading comprehension items related to the create skill. It means that create skill question did not exist. Therefore the percentage was 0%.

# The Specific Cognitive Process under HOTS Questions in School Final Examination

Based on the revised Bloom's taxonomy, the cognitive process includes six skills, namely remember, understand, apply, analyze, evaluate and create. Within each skill contain specific cognitive process. There are 19 specific cognitive processes in total. The frequency of specific cognitive process that was indicated in the reading comprehensions questions is presented in the table below;

No	Remember (C1)	Package	Frequency	Percentage
	Recognizing	P1	9	10.5%
		P2	9	10.5%
2.	Recalling	P1	0	-
		P2	0	-
	Understand (C2)			
3.	Interpreting	P1	8	9.3%
		P2	10	11.6%
4.	Exemplifying	P1	0	-
		P2	0	-
5.	Classifying	P1	8	9.3%
		P2	8	9.3%
6.	Summarizing	P1	7	8.1%
	C C	P2	5	5.8%
7.	Inferring	P1	3	3.4%
	-	P2	3	3.4%
8.	Comparing	P1	0	-
	1 0	P2	0	-
9.	Explaining	P1	1	1.2%
	1 0	P2	1	1.2%
	Apply (C3)			
10.	Executing	P1	4	4.7%
	0	P2	4	4.7%
11.	Implementing	P1	0	-
	1 0	P2	0	-
	Analyze (C4)			
12.	Differentiating	P1	2	2.3%
	C C	P2	2	2.3%
13.	Organizing	P1	0	-
		P2	0	-
14.	Attributing	P1	0	-
		P2	0	-
	Evaluate (C5)			
15.	Checking	P1	0	-
	0	P2	0	-
16.	Critiquing	P1	1	1.2%
		P2	1	1.2%
	Create (C6)			
17.	Generating	P1	0	-
		P2	0	-
18.	Planning	P1	0	-
	č	P2	0	-
19.	Producing	P1	0	-
	0	P2	0	-
	Total		86	100%

Based on the table above, the dominant specific cognitive process is interpreting (9.3% and 11.6%), recognizing (10.4% and 10.4%) as well as classifying (9.3% and 9.3%). It is followed by the specific cognitive process of summarizing (8.1% and 5.8%) executing (4.6% and 4.6%), inferring (3.4% and 3.4%), differentiating (2.3% and 2.3%), explaining (1.1%) and critiquing (1.1%). The ones that have zero

presences in reading comprehension items are recalling, exemplifying, comparing, implementing, organizing, attributing, checking, generating, planning, and producing.

**The Portion of HOTS Questions in Two Packages of School Final Examination** Frequency and percentage of LOTS and HOTS in all reading comprehension items have been obtained. The distribution of LOTS and HOTS questions in each package is presented in the table below;

No	Packages	Cognitive Process		Frequency	Percentage	Total
1	Package	LOTS	Remember	9	20.9%	40 (93%)
	01		Understand	27	62.7%	
			Apply	4	9.3%	
		HOTS	Analyze	2	4.6%	3 (7%)
			Evaluate	1	2.3%	
			Create	0	-	
2	Package	LOTS	Remember	9	20.9%	40 (93%)
	02		Understand	27	62.7%	
			Apply	4	9.3%	
		HOTS	Analyze	2	4.6%	3 (7%)
			Evaluate	1	2.3%	
			Create	0	-	

Table 6. The Frequencies and Percentages of LOTS And HOTS Of Reading
Comprehension Items In Each Package

Based on the table above, it is seen that the portion or distribution of LOTS and HOTS questions in each package is the same. The percentage of LOTS questions in both packages is 93%, whereas the percentage of HOTS questions is 7%. It indicated that the distribution of LOTS questions was much bigger than HOTS questions.

## Discussion

# The Distribution of LOTS and HOTS Questions in Reading Test Items in School Final Examination

It is the most broadly recognized that Indonesian government has integrated HOTS questions in the National examination since 2018. Based on the 2013 curriculum, higher-order thinking skill is one of the critical features that teacher should considerate in the lesson plan. It revealed that HOTS could help the students to make opinions and logical decisions for their problems. School final examination or Ujian Sekolah Berstandar Nasional (USBN) as one of students; standard test should have included the HOTS questions. Thus, the researcher wants to find the distribution of LOTS and HOTS questions in two examination packages in Bima.

The research findings were obtained after categorizing whole questions into six cognitive processes such as remember, understand, apply, analyze, evaluate and create. Based on the result of the research, it can be seen that the distribution of LOTS was higher than HOTS questions. LOTS questions almost dominated the whole questions. LOTS questions got 93.1% while HOTS questions only obtained 6.9%. From 86 total questions, there were only six questions under HOTS category. And the rest of the questions (80) belonged to LOTS questions. It indicated that the

unfair distribution between LOTS and HOTS questions in all reading comprehension questions.

This was also evidenced by the dominance of cognitive processes that were seen in all reading comprehension questions. The most frequent skill or cognitive process is understand skill included in low-order thinking skill with the frequency of 54 out of 86 questions. It implied that the half portion of whole questions is from understand skills. It was followed by remember and apply skills with the frequency of 18 and 8 questions.

Analyze skill as the first skill in higher-order thinking skill only obtained four questions out of 86 questions or 4.6%. It was considered a small distribution a mong the six cognitive processes, but it was the highest distribution between HOTS skill. It is supported by the statement by the English teacher that analyze skill is the most used skill among HOTS skill that he found in school final examination in Bima. He stated that analyze skill is the easiest among these skills. Keshta & Seif (2013) also revealed that analyze skill is the highest among HOTS skills in reading English for eighth grade Palestine students. Analyze skills are at a lower level than evaluate and create skills in the revised version of Bloom's taxonomy which implies that analyze is easier than other skills.

For evaluate skill, the researcher merely found out one question in each package. It was not well examined by the questions creator of school final examination. Evaluate seems limited not only in this research but also in English reading comprehension in Malaysia. Valdev Singh & Shaari (2019) found only five questions that can be considered as evaluate skill in the whole data. It showed that evaluate skill was neglected by the teacher or question creator. Being at the top level before create skill in the revised version of Bloom's taxonomy makes evaluate skill is one of the hardest questions to accomplish.

Create skill of HOTS was not presented in the test. Create skill was considered as the most difficult since it was the highest skill in the revised version of Bloom taxonomy. Brookhart (2010) stated that students have to put existing things together in a new way or form.

The unbalanced portion between HOT Skills may be due to the complexity of the questions. The more complex a question, the students need more time to solve it. It should be noted that students have to answer 45 questions (43 reading comprehension questions and 2 other questions) in 2 hours, it implies that the students have to answer one question in 2 minutes 6 seconds. Thus, it is assumed a little of time. Following this idea, Airasian & Russels (2008) stated that teachers wait for an amount of time for students to accomplish higher-level questions. The small portion of HOTS was also caused by the lack of confidence of the teacher in believing that the students can answer HOTS questions. Al-Btoush (2012) believed that teachers use the basic levels of questions due to their lack of confidence in their students' ability to answer critical questions.

# The Specific Cognitive Process under HOTS Questions in School Final Examination

After doing the research, the result showed that the most used specific cognitive process in the whole questions was interpreting and recognizing skill with the frequency of 18 questions. Then, classifying skill was 16 questions and summarizing

skill was 12 questions. Further, executing, inferring, differentiating, explaining and critiquing. Recalling, exemplifying, comparing, implementing, organizing, attributing, checking, generating, planning, and producing did not exist in reading comprehension questions both in package 01 and 02.

The specific cognitive processes of analyze skill were divided into three such as differentiating, organizing and attributing. In this research, only differentiating can be found in the reading comprehension items of school final examination. Each package had two questions which indicated as differentiating skill. The question asked the students to guess the meaning of the underlined word. Students must guess the meaning based on the context. These types of questions only appeared twice in every package. It occurred because students had limited vocabularies of English word since English was not their first language.

On the contrary, organizing and attributing did not exist in the whole data of this research. The organizing skill deals with recognizing the parts of a situation and recognizing how they can be fit together into an entire structure. These types of questions had not appeared in this research. It was so different from the research conducted by Putra & Abdullah (2019), which revealed that there are 24 organizing and six attributing questions in National examination started from 2013 until 2018. Due to the questions in the National examination were more complex than the school final examination since the government creates 100% questions.

In evaluate level, there are two specific cognitive processes, namely checking and critiquing. There was only one question of critiquing in each package of school final examination in Bima. The questions were in essay form which students are asked to give their opinion about the things that can be learned from the story. The students have to judge whether the story has any values that can be learned by the students. Meanwhile checking is about detecting an internal error of a certain product (Anderson et al., 2001). The students have to examine whether the presented information contains parts that conflict one another or not.

### The portion of HOTS Questions in Two Packages of School Final Examination

For getting the result, percentage and frequency of LOTS and HOTS in each package should be decided using the formula. After doing the calculation, the findings revealed that the percentage of LOTS and HOTS questions in each package was the same. It gained 93% of LOTS and 7% of HOTS questions. There were only three HOTS questions in every package. It can be concluded that package 01 and 02 had the same level of difficulty. It means that the test is fair in term of difficulty level and the amount of questions.

The mere difference between package 01 and 02 was the frequency of two specific cognitive processes. They were interpreting and summarizing. However, the frequency and percentage of cognitive processes understand were similar at the end. Thus, the difference between package 01 and 02 was not big at all.

It can be concluded that HOTS was neglected or not examined well in this test since the author or the question creator primarily focused on LOTS questions. The small distribution of HOTS questions indicated that from 86 questions analyzed, on ly six questions were indicated as HOTS questions. It was considered lower since students have to practice and optimize their mind to think creatively and critically.

#### CONCLUSION

The findings revealed that the portion of LOTS questions was higher than HOTS questions. The LOTS questions obtained 93.1% while HOTS questions merely obtained 6.9%. It indicated that there were 80 out of 86 LOTS questions while HOTS questions only obtained 6 out of 86 questions. Furthermore, the question that was most emphasized in the test was understand skill (C2) with the total question was 54 from 86 questions or 62.8%. The second dominant cognitive process was remember skill (C1) with the total number of questions was 18 out of 86 questions or 21%. The third skill is apply skill (C3) with the frequency of 8 out of 86 questions, which was equal to 9.3%. The fourth and fifth one is analyze (C4) and evaluate skill (C5). Both skills had the frequencies of 4 and 2 out of 86 questions, which were equal to 4.6% and 2.3%. The last skill was create skill (C6). The researcher found null distribution in reading comprehension items related to the create skill. Therefore the percentage was 0%.

After categorizing into 19 more specific cognitive processes, it was revealed that the most used specific cognitive processes in the whole questions are interpreting and recognizing skill with the frequency 18 questions. It was followed by classifying skill with a total of 16 questions and summarizing skills with 12 questions. Following order was executing, inferring, differentiating, explaining and critiquing. Recalling, exemplifying, comparing, implementing, organizing, attributing, checking, generating, planning, and producing did not exist in reading comprehension questions both in package 01 and 02.

Based on the result, the researcher found that the portion of HOTS questions in two packages were similar. It gained 93% LOTS and 7% HOTS questions. It can be concluded that both package 01 and 02 have the same amount of HOTS questions. There were only three HOTS questions in every package. It indicated that the test was fair in term of difficulty level and the amount of questions. The mere difference between package 01 and 02 was the frequency of two specific cognitive processes. They are interpreting and summarizing. However, the frequency and percentage of cognitive processes understand were similar at the end. Thus, the difference between package 01 and 02 was not big at all.

### DAFTAR PUSTAKA

- Anasy, Z. (2016). Hots (Higher Order Thinking Skill) in reading exercise. TARBIYA: Journal of Education in Muslim Society, 3(1), 51-63. https://doi.org/10.15408/tjems.v3i1.3886
- Anderson, L. W., Krathwohl Peter W Airasian, D. R., Cruikshank, K. A., Mayer, R. E., Pintrich, P. R., Raths, J., & Wittrock, M. C. (2001). Taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives (B. Allyn, Ed.). Retrieved from https://www.uky.edu/~rsand1/china2018/texts/Anderson-Krathwohl A taxonomy for learning teaching and assessing.pdf
- Bloom, B. S. (1956). Taxonomy of education objectives. 207. Retrieved from https://www.uky.edu/~rsand1/china2018/texts/Bloom et al -Taxonomy of Educational Objectives.pdf

- Brookhart, S. M. (2010). How to assess higher-order thinking skills in your classroom. ASCD.
- Ciesielska, M., & Jemielniak, D. (2017). Qualitative methodologies in organization studies. Qualitative Methodologies in Organization Studies, 2(December), 1–264. https://doi.org/10.1007/978-3-319-65442-3
- Creswell, J. W. (2014). Research Design Qualitative Quantitative and Mixed Methods Approaches. https://doi.org/10.1007/s13398-014-0173-7.2
- Denzin, N. K., & Lincoln, Y. S. (2000). Introduction: The discipline and practice of qualitative research. In Handbook of qualitative research (2nd edition).
- Fahim, M., & Masouleh, N. S. (2012). Critical thinking in higher education: A pedagogical look. Theory and Practice in Language Studies, 2(7). https://doi.org/10.4304/tpls.2.7.1370-1375
- Febrina, Usman, B., & Muslem, A. (2019). Analysis of reading comprehension questions by using revised Bloom's taxonomy on higher order thinking skill (HOTS). English Education Journal: Jurnal Pengembangan Pendidikan Dan Pengembangan Pengajaran Bahasa, 10(1), 1–15.
- Griffee, D. T. (2012). An Introduction to Second Language Research Methods: Design and Data. Berkeley: TESL-EJ Publications.
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. Qualitative Health Research, 15(9), 1277–1288. https://doi.org/10.1177/1049732305276687
- Huang, L. (2010). Reading aloud in the foreign language teaching. Journal of Asian Social Science, Vol 6, No., 148–150.
- Keshta, A. S., & Seif, A. (2013). Evaluating the higher order thinking skills in reading of English for Palestine grade eight. Asian Journal of Education and E-Learning, 01(01), 2321–2454. Retrieved from www.ajouronline.com
- Krathwohl, D. R. (2000). Use these notes and the other reference info. New York Longman, Complete e(4), 302. https://doi.org/10.1207/s15430421tip4104\_2
- Miles, M. B., Huberman, M. a, & Saldana, J. (2014). Drawing and verying conclusions. Qualitative Data Analysis: A Methods Sourcebook. https://doi.org/January11,2016
- Moore, B., & Stanley, T. (2013). Critical thinking and formative assessments: Increasing the rigor in your classroom. https://doi.org/10.4324/9781315856261
- Penelitian, P., Pendidikan, K., & Kebudayaan, D. A. N. (2018). Muatan HOTS pada pembelajaran kurikulum 2013 pendidikan dasar.
- Putra, T. K., & Abdullah, D. F. (2019). Higher-order thinking skill (Hots) questions in English national examination in Indonesia. Jurnal Bahasa Lingua Scientia, 11(1), 145–160. https://doi.org/10.21274/ls.2019.11.1.145-160
- Raiyn, J., & Tilchin, O. (2017). A model for assessing the development of HOT skills in students. American Journal of Educational Research, 5(2), 184–188. https://doi.org/10.12691/education-5-2-12

- Retnawati, H., Djidu, H., Kartianom, K., Apino, E., & Anazifa, R. D. (2018). Teachers' knowledge about higher-order thinking skills and. Problem of Education in The 21st Century, 76(2), 215–230.
- Shank, G. D. (2006). Qualitative research: A personal skills approach.
- Thompson, T. (2008). Mathematics teachers' interpretation of higher-order thinking in Bloom's taxonomy. International Electronic Journal of Mathematics Education.
- Valdev Singh, R. K., & Shaari, A. H. (2019). The analysis of Higher-Order Thinking skills in English reading comprehension tests in Malaysia. Malaysian Journal of Society and Space, 15(01). https://doi.org/10.17576/geo-2019-1501-02
- Wilson, L. O. (2016). Anderson and Krathwohl Bloom's Taxonomy Revised URL: The Second Principle, 1–8. Retrieved from https://thesecondprinciple.com/teaching-essentials/beyond-bloomcognitive-taxonomy-revised/%0
- Zhang, Y., & Wildemuth, B. M. (2009). Qualitative analysis of content. Applications of Social Research Methods to Questions in Information and Library Science. https://doi.org/10.1002/hbm.20661 Online sources
- Azmah, Roifah. (2019, December 13). JK tak satu suara dengan Nadiem soal UN diganti. Retrieved from https://papua.tribunnews.com
- Agus, Utantoro (2019, December 13). Soal HOTS di UN SMP sudah disesuaikan. Retrieved from https://mediaindonesia.com
- Ibrahim, Gufran (2019, December 15). PISA dan daya baca bangsa. Retrieved from https://kompas.com
- Yulaika, Ramadhani (2019, December 15). Mendikbud: Hasil UN SMP alami penurunan karena soal HOTS. Retrieved from https://tirto.id/cK3D
- Richards, J.C. (2019 December 17). Difference between task, exercise, activity. Retrieved from https://www.professorjackrichards.com.