

**AN ANALYSIS OF HIGHER ORDER THINKING SKILL (HOTS)
IN ENGLISH SUMMATIVE TEST ITEMS PREPARED BY TEACHERS
OF SMK TELKOM PEKANBARU**

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Abstract: *This research aims to find out how many test items of HOTS in summative tests are prepared by teachers of SMK TELKOM Pekanbaru. The object of this study was the odd and even semester of summative test items of grade X students for the 2022/2023 school year. This research used descriptive quantitative research. The data was gathered through a documentation study, namely the document in the form of a School Examination question sheet. The data were analyzed and categorized based on the C1-C6 thinking level, and then calculated the percentage of questions with the HOTS category based on the formula according to Ali (2013: 201) using Microsoft Excel. The result of the study revealed that there were 43 questions or 45.55%, with details of 22 questions in the odd semester or 48.88% which included C4 (analyze) questions totaling 15 questions, C5 (evaluate) totaling 5 questions, and C6 (create) totaling 2 questions. In the even semester summative test there were 19 questions or 42.22% which included C4 (analyze) questions totaling 13 questions, C5 (evaluate) totaling 4 questions, and C6 (create) totaling 2 question. Each semester was in the "medium" category.*

Keywords: *Analysis, Higher Order Thinking Skill (HOTS), Summative Test*

**ANALISIS KEMAMPUAN BERPIKIR TINGKAT TINGGI (*HOTS*)
PADA BUTIR SOAL TES SUMATIF BAHASA INGGRIS YANG DISUSUN
OLEH GURU DI SMK TELKOM PEKANBARU**

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Abstrak: Kajian ini bertujuan untuk mengetahui seberapa banyak butir soal HOTS pada tes sumatif yang disusun oleh guru SMK TELKOM Pekanbaru. Objek penelitian ini adalah butir soal tes sumatif semester ganjil dan genap siswa kelas X tahun ajaran 2022/2023. Kajian ini menggunakan penelitian deskriptif kuantitatif. Data dikumpulkan melalui studi dokumentasi, yaitu dokumen berupa lembar soal Ujian Sekolah. Data dianalisis dan dikategorikan berdasarkan tingkat berpikir C1-C6, kemudian dihitung persentase soal dengan kategori HOTS berdasarkan rumus menurut Ali (2013:201) dengan menggunakan Microsoft Excel. Hasil penelitian menunjukkan bahwa terdapat 43 soal atau 45,55%, dengan rincian 22 soal pada semester ganjil atau 48,88% yang meliputi soal C4 (menganalisis) sebanyak 15 soal, C5 (mengevaluasi) sebanyak 5 soal, dan C6 (mencipta) sebanyak 2 soal. Pada ulangan akhir semester genap terdapat 19 soal atau 42,22% yang meliputi soal C4 (menganalisis) sebanyak 13 soal, C5 (mengevaluasi) sebanyak 4 soal, dan C6 (mencipta) sebanyak 2 soal. Setiap semester berada pada kategori "sedang".

Kata Kunci: Analisis, Kemampuan Berpikir Tingkat Tinggi, Tes Sumatif

INTRODUCTION

The implementation of the 2013 curriculum aims to prepare students for the 21st century. The 21st-century skills needed by students are creativity, critical thinking/problem solving, communication, and collaboration. The learning needs assignments and problem solving exercises and stimulates HOTS (Afandi & Sajidan, 2017). Including its implementation in summative tests.

Higher Order Thinking Skills (HOTS) is defined by Newmann (NCSS, 1991 in Himmah, 2019: 56), as a challenge and expansion of the use of the mind that occurs when a person must interpret, analyze, or manipulate information because a problem to be solved cannot be solved through routine procedures.

Thinking skills in Anderson & Krathwohl's revised Bloom taxonomy are divided into three, namely Lower Order Thinking Skills (LOTS), Middle Order Thinking Skills (MOTS), and Higher Order Thinking Skills (HOTS) (Saragih, 2019:151). One of the 3 that is now intensified in the world of education is HOTS because considering the times and the digital world with various extraordinary challenges that have the potential to create dependence, pseudo-maturity of students, and the challenges of globalization (Kristiyono, 2018: 45).

According to the 2013 Curriculum, teachers are asked to be more skillful and proficient in creating and developing subject questions to train students' thinking skills, thus using HOTS based assessment standards that have been widely used in formal schools from elementary to high school levels (Widana, 2017: 3).

Evaluation has an important role in achieving educational goals. Therefore, to get a good quality education, it is necessary to have an educational evaluation tool that is under the qualities and educational objectives to be achieved. One type of test used in learning at school is a summative test.

According to the results of the 2018 Program for International Student Assessment (PISA), Indonesian students are ranked 74 of 79 countries in reading ability (Khurniawan & Erda, 2019:4). These results indicate that students are not able to answer HOTS questions because the questions in PISA are categorized as HOTS. In the educational theory aspect, Indonesian students are still at the LOTS level. One of the reasons is that students are not familiar with critical and creative thinking.

Based on the explanation above, it can be concluded that evaluation in the form of tests is very important in the learning process as a measuring tool for students' understanding and abilities during one semester. Therefore, it is necessary to analyze questions that aim to identify deficiencies in tests or in learning in order to determine and improve the quality of questions that have been prepared. From an interview with the English teacher, the quality of the HOTS categorized test has never been analyzed theoretically. In order to find out about this occurrence, the researcher decided to do a research titled as "An Analysis Of HOTS (Higher Order Thinking Skills) In Summative Test Items Prepared By Teachers Of SMK Telkom".

METHOD

Descriptive quantitative was used in this research. According to Sugiyono (2022: 15) quantitative method can be interpreted as research methods based on the philosophy of positivism, used to research on certain populations or samples, data collection using research instruments, data analysis is quantitative/statistical, with the aim of describing and testing predetermined hypotheses. Descriptive research is research that is intended to investigate

circumstances, conditions, or other things that have been mentioned, the results of which are presented in the form of a research report (Arikunto, 2013: 23).

The object of this research was the odd and even semester of summative test items for the 2022/2023 school year prepared by six teachers of SMK TELKOM Pekanbaru who worked in teams.

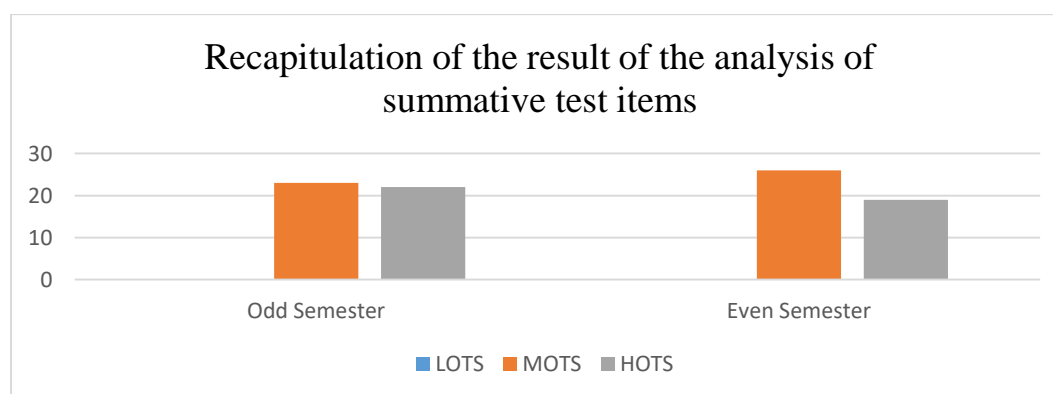
FINDING AND DISCUSSION

Finding

The result of the analysis of HOTS in English summative test for class X of SMK TELKOM Pekanbaru in the 2022/2023 school year found that there were of 40 multiple choice items and 5 essay items in odd semester, and 40 multiple choice items and 5 essay items in the even semester. The total number of questions analyzed was 80 multiple choice questions and 10 essay questions. The cognitive level of the English summative test items for the 2022/2023 school year in the odd and even semester, the following results were obtained:

Table 4. 1 Recapitulation of the results of the analysis of summative test items in the 2022/2023 school year of SMK TELKOM Pekanbaru

Category	Odd Semester		Even Semester	
	Multiple Choice	Essay	Multiple Choice	Essay
LOTS	-	-	-	-
MOTS	18	5	21	5
HOTS	22	-	19	-



Picture 4. 1 Chart of recapitulation of the analysis of summative test items

Based on the analysis of the odd and even semester summative test questions in the 2022/2023 school year, the results of questions with the HOTS category were 43 questions or 45.55%, with details of 22 questions in the odd semester or 48.88% which included C4 (analyze) questions totaling 15 questions, C5 (evaluate) totaling 5 questions, and C6 (create) totaling 2 questions. In the even semester summative test there were 19 questions or 42.22% which included C4 (analyze) questions totaling 13 questions, C5 (evaluate) totaling 4 questions, and C6 (create) totaling 2 question.

Discussion

The level of thinking consists of three levels, namely LOTS measuring the ability to remember, namely at C1, MOTS measuring the ability to understand and apply, which is at C2 and C3, and HOTS which measures knowledge to analyze (C4), evaluate (C5), and create (C6). Characteristics of questions with the HOTS category are that students are asked to use logic and reasoning to be able to make the right decisions, predict, and develop new strategies for solving problems. (Nurjanah, et al., 2022: 312).

Based on the data findings from the analysis of the questions above, the category of HOTS in English summative test items for the 2022/2023 school year based on the text of the summative test questions in the odd and even semesters of class X found some operational verbs (KKO), there are C4 (Analyze), C5 (Evaluate), and C6 (Create). The operational verbs used are the words "Analyze" (C4), "Conclude" (C5), "Create" (C6), and " Create" (C6). There are 22 multiple choice out of 45 odd semester of English summative test items that are included in the HOTS category.

The following is the table of odd semester item analysis classification:

Table 4. 2 Question number 1

No	Question	Cognitive Level	KKO
1	What would be the best title for the story? a. Animals b. The Hare and the Tortoise c. Hare d. Fox	C6	Create

Table 4. 3 Question number 3

No	Question	Cognitive Level	KKO
3	Why did the rabbit lose the race? a. Because the rabbit eats first b. Because rabbits take a nap during the day c. Because the bunny is bathing d. Because rabbits climb tree	C4	Analyzing

Table 4. 4 Question number 4

No	Question	Cognitive Level	KKO
4	Where do rabbits nap during the race? a. Beside the field. b. In the forest. c. Near the goal. d. On the tree	C4	Analyzing

Table 4. 5 Question number 5

No	Question	Cognitive Level	KKO
5	What is the moral of the story, except? a. We must care for each other. b. We must not underestimate other people.	C5	Summarize

	c. We must always be optimistic d. We have to be mean to other people.		
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Table 4. 6 Question number 6

No	Question	Cognitive Level	KKO
6	The moral value of the story is.... a. Hard work is a key of success b. Practice make Perfect c. Cleanliness is part of faith d. Must respect each other	C5	Summarize

Table 4. 7 Question number 7

No	Question	Cognitive Level	KKO
7	Who asked to eat first? a. The Fox b. The Stork c. The rabbit d. The mouse deer	C4	Analyzing

Table 4. 8 Question number 9

No	Question	Cognitive Level	KKO
9	How did the stork teach the Fox a lesson? a. Invite to eat together. b. Invite the foxes to join them in eating together in a very shallow dish. c. Invites the stork to fight d. Inviting the fox to join them in eating together in a tall jar with a very narrow neck.	C4	Analyzing

Table 4. 9 Question number 10

No	Question	Cognitive Level	KKO
10	Why did the fox invite the stork to eat together? a. To amuse himself and play a prank on the stork b. To share with the stork c. To fight with storks d. To make friends with storks	C4	Analyzing

Table 4. 10 Question number 11

No	Question	Cognitive Level	KKO
11	"But the Fox lapped it up easily, and, to increase the disappointment of the Stork, made a great show of enjoyment". The word in bold refers to.... a. Spoon b. Soup c. Jar d. Dish	C4	Analyzing

Table 4. 11 Question number 12

No	Question	Cognitive Level	KKO
12	The similar meaning of the word in bold is... a. Disillusionment b. Relief c. Commitment d. Argument	C4	Analyzing

Table 4. 12 Question number 13

No	Question	Cognitive Level	KKO
13	"For dinner the Fox served soup". What is the noun phrase of the sentence? a. Dinner b. The Fox c. Served d. Soup	C4	Analyzing

Table 4. 13 Question number 15

No	Question	Cognitive Level	KKO
15	"I will come at the lake today," said the Fox. Change this sentence into indirect speech..... a. The Fox said he would come at the lake that day. b. The Fox said that he would come at the lake that day. c. The Fox said that he had would come at the lake that day. d. The Fox said that he had been came at the lake that day.	C6	Create

Table 4. 14 Question number 16

No	Question	Cognitive Level	KKO
16	What is the main idea of the text? a. A small but comfortable bedroom. b. My bed is in the middle of the room. c. I live in a beautiful village and I really enjoy rural life. d. A flower vase is on the dressing table on the left side of the bed.	C5	Summarize

Table 4. 15 Question number 19

No	Question	Cognitive Level	KKO
19	"It is very comfortable to sit for hours there". The word "it" refers to.... a. Bedroom b. Living Room c. Table d. Chair	C4	Analyzing

Table 4. 16 Question number 20

No	Question	Cognitive Level	KKO
20	<p>“My mattress consists of two layers and its colour is light brown with floral accents.”</p> <p>The word in bold can be replaced with.....</p> <ol style="list-style-type: none"> Motifs Lines Layers plain 	C4	Analyzing

Table 4. 17 Question number 21

No	Question	Cognitive Level	KKO
21	<p>What is the purpose of this text?</p> <ol style="list-style-type: none"> To entertain reader about Pink Beach. To explain the reader about activities in Pink Beach. To introduce the local tourism in Pink Beach. To describe Pink Beach. 	C4	Analyzing

Table 4. 18 Question number 23

No	Question	Cognitive Level	KKO
23	<p>Why should we arranged a hotel in Labuan Bajo prior to visiting Pink Beach?</p> <ol style="list-style-type: none"> Because on this beach you will not find accommodation and facilities. Because the island is very crowded. Because the island is far from residential areas. Because this island is the biggest island. 	C5	Summarize

Table 4. 19 Question number 24

No	Question	Cognitive Level	KKO
24	<p>How can the sand be pink on this pink beach?</p> <ol style="list-style-type: none"> Exposed to the sun too long. Polluted by air pollution on the beach. The effect of the many visitors who come. The pink color comes from dead red corals. 	C5	Summarize

Table 4. 20 Question number 25

No	Question	Cognitive Level	KKO
25	<p>“The beach is uninhabited”. The similar meaning the word in bold is.....</p> <p>a. Unpopulated</p> <p>b. Inhabited</p> <p>c. Occupied</p> <p>d. Settled</p>	C4	Analyzing

Table 4. 21 Question number 33

No	Question	Cognitive Level	KKO
33	<p>How many steps are needed to make an Orange Cup?</p> <p>a. 1</p> <p>b. 2</p> <p>c. 3</p> <p>d. 4</p>	C4	Analyzing

Table 4. 22 Question number 34

No	Question	Cognitive Level	KKO
34	<p>“Fill the bowl up with equal quantities of soda water ... iced water, stir well, and then decorate with orange slices”. The similar meaning from the word in bold.....</p> <p>a. The same</p> <p>b. Different</p> <p>c. Distinct</p> <p>d. Dissimilar</p>	C4	Analyzing

Table 4. 23 Question number 35

No	Question	Cognitive Level	KKO
35	<p>Which of the following sentences indicates a command?</p> <p>a. Place the ice in a large jug.</p> <p>b. Thin slices of orange</p> <p>c. 1 pint strained fresh orange juice</p> <p>d. 1 large piece of ice</p>	C4	Analyzing

The following is the table of even semester item analysis classification:

Table 4. 24 Question number 6

No	Question	Cognitive Level	KKO
6	<p>What is the purpose of the text?</p> <p>a. To persuade reader about the Cars Should Be Banned In The City</p> <p>b. To explain the characteristics the Cars Should Be Banned In The City</p> <p>c. To inform readers about Cars Should Be Banned In The City</p> <p>d. To describe Cars Should Be Banned In The City</p>	C4	Analyzing

Table 4. 25 Question number 7

No	Question	Cognitive Level	KKO
7	The following sentences are true, except ... a. The cars contribute the most of pollution in the world. b. The cars are very noisy. c. The cars can also cause many deaths and other road accidents. d. The car cans accelerate the transport.	C4	Analyzing

Table 4. 26 Question number 8

No	Question	Cognitive Level	KKO
8	What the title text above? a. Cars should be banned in the city b. Cars cause pollution c. Car giant killer street d. Car facilitate transportation	C6	Create

Table 4. 27 Question number 18

No	Question	Cognitive Level	KKO
18	“. . . an <u>aviation</u> company.” The underlined word is closest in meaning to a. Flight b. Voyage c. Maritime d. Transportation	C6	Create

Table 4. 28 Question number 19

No	Question	Cognitive Level	KKO
19	From the text, we know that Ki Hajar Dewantara..... a. Could not complete his medical school, STOVIA b. Was a teacher in the Dutch primary school c. Got a good education because he was smart d. Wrote actively to prove his ability in writing	C4	Analyzing

Table 4. 29 Question number 20

No	Question	Cognitive Level	KKO
20	According to Ki Hajar Dewantara, what is very important to make students unite and act for their country? a. Education b. Journalism c. Organization d. Independence	C4	Analyzing

Table 4. 30 Question number 21

No	Question	Cognitive Level	KKO
21	<p>“He was considered an accomplished writer.”(paragraph 3) the word “accomplished” in the text has a similar meaning with</p> <p>a. Acceptable</p> <p>b. Sufficient</p> <p>c. Adequate</p> <p>d. Talented</p>	C4	Analyzing

Table 4. 31 Question number 22

No	Question	Cognitive Level	KKO
22	<p>From the text, we know that the writer</p> <p>a. Is not Indonesian</p> <p>b. Loved eating <i>gudeg</i> in Yogyakarta</p> <p>c. Stayed in <i>Ibis</i> hotel because it was cheap</p> <p>d. Visited Taman sari before the Palace</p>	C4	Analyzing

Table 4. 32 Question number 23

No	Question	Cognitive Level	KKO
23	<p>“Most people said that it was the most recommended place for shopping in Yogyakarta. (Paragraph 4). The word “it” refers to</p> <p>a. Taman Sari</p> <p>b. Mirota Batik</p> <p>c. Local restaurant</p> <p>d. Parangritis beach</p>	C4	Analyzing

Table 4. 33 Question number 24

No	Question	Cognitive Level	KKO
24	<p>From the dialogue, we can infer that</p> <p>a. Sadam and Shefina had a long flight</p> <p>b. Sadam and Shefina met last month</p> <p>c. Shefina has been in Bandung since last month</p> <p>d. Shefina spent more than ten hours at the airport</p>	C5	Summarize

Table 4. 34 Question number 25

No	Question	Cognitive Level	KKO
25	<p>What is the conversation mainly about?</p> <p>a. A trip that someone has taken</p> <p>b. The persons’ last project together</p> <p>c. Two persons meet again after a while</p>	C5	Summarize

	d. A very long flight that makes one tired.		
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Table 4. 35 Question number 26

No	Question	Cognitive Level	KKO
26	What is the communicative purpose of the text? a. To inform the readers about MRT b. To tell the readers how to use MRT c. To persuade the readers to use MRT d. To retell the writer's experience using MRT	C4	Analyzing

Table 4. 36 Question number 27

No	Question	Cognitive Level	KKO
27	From the text above, we can infer that a. MRT can easily be found anywhere b. MRT is able to transport quite a lot of people c. The integrated station enables us to move quickly d. The platform screen doors help the train move faster	C5	Summarize

Table 4. 37 Question number 28

No	Question	Cognitive Level	KKO
28	".....is expected to help reduce the traffic <u>congestion</u>" (last paragraph) The underlined word has the same meaning with... a. Jam b. Drift c. Flock d. Cluster	C4	Analyzing

Table 4. 38 Question number 29

No	Question	Cognitive Level	KKO
29	From the text, it can be concluded that pigeons live mainly in a. Tropical region b. Cold places c. Antarctic d. Sahara	C4	Analyzing

Table 4. 39 Question number 30

No	Question	Cognitive Level	KKO
30	The second paragraph tells about.... a. Pigeons' nests b. Pigeons' behavior c. Pigeons' as messengers d. The way pigeons communicate	C4	Analyzing

Table 4. 40 Question number 38

No	Question	Cognitive Level	KKO
38	What kind of the text above? a. Report text b. Recount text c. News item d. Narrative text	C4	Analyzing

Table 4. 41 Question number 39

No	Question	Cognitive Level	KKO
39	The unique characteristic of giraffe is? a. Two horns on its head b. Their long neck c. Brown spot d. Their food	C5	Summarize

Table 4. 42 Question number 40

No	Question	Cognitive Level	KKO
40	The second paragraph mainly discussed about? a. Giraffe's food b. Giraffe's characteristics c. Giraffe's life d. Giraffe's reproduction	C4	Analyzing

After analyzed the odd and even semester of English summative test items for class X in the 2022/2023 school year at SMK TELKOM Pekanbaru, 22 items were found that fulfilled the criteria of HOTS items in the odd semester and 19 HOTS items in the even semester. The researcher analyzed or assessed the level of suitability of the cognitive domain based on the Operational Verbs (KKO) of Bloom's Taxonomy revised. Thus it can be known which items are included in the domain of remember (C1), Understand (C2), Apply (C3), Analyze (C4), Evaluate (C5), and Create (C6).

CONCLUSION AND RECOMMENDATION

Conclusions

Based on the result of the research, HOTS in the English summative test items prepared by teachers of SMK TELKOM Pekanbaru in the school year 2022/2023 in the odd semester was 48.88%, and in the even semester, it was 42.22%, each semester was in the "medium" category.

During the odd semester, the HOTS category consists of 22 items, which are numbers 1, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 15, 16, 19, 20, 21, 23, 24, 25, 33, 34, 35. Meanwhile, during the even semester, the HOTS category consists of 19 items, which are numbers 6, 7, 8, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 38, 39, 40.

Recommendations

Considering the conclusions above, the researcher would like to offer three recommendations related to this research. Firstly, since HOTS in the English summative test items prepared by teachers in the odd and even semesters of the 2022/2023 academic year was in the medium category, teachers should design more English items in HOTS in the next semester. Secondly, for further researchers, it is necessary to develop HOTS questions for English subjects so that they can be applied in learning activities, to help students improve their ability to analyze or understand a particular problem critically and creatively.

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