MAPPING READING EXERCISES IN ENGLISH TEXTBOOK FOR ELEVENTH GRADE STUDENTS BASED ON HOTS

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Abstract

This study is about the cognitive level of reading exercises in an English textbook for eleventh grade students based on Revised Bloom's Taxonomy. The objective of the study was to investigate the distribution of the higher order thinking skills in the reading exercises of students' textbooks entitled *Bahasa Inggris* which is published by the Ministry of Education and Culture. This study was conducted by using descriptive qualitative method. The data of this study were the reading texts' exercises in the textbook. The result of this study was the reading exercises in *Bahasa Inggris* textbook covered all of the cognitive levels, they are Remembering (43.90%), Understanding (20.73%), Applying (6.1%), Analyzing (1.83%), Evaluating (1.22%), and Creating (26.22%). Thus, the distribution of higher order thinking skills (analyzing, evaluating, and creating) in the textbook was 29.27%, and for the lower order thinking skills obtained 70.73%. Thus, reading exercises developed in *Bahasa Inggris* textbook provided Higher Order Thinking Skills questions to students at the eleventh grade.

Key words: Higher Order Thinking Skills; Reading Exercises; Revised Bloom's Taxonomy

1. Introduction

Reading is a crucial skill for students in English. It is not an easy task, because reading in English is complicated and it is hard to get meaning from text. It needs comprehension to get information conveyed by the writer (Kartawijaya, 2018). As one of four basic language skills, reading is an activity done to obtain information. By reading we get more knowledge, not only from one source but many sources, such as books, newspapers, magazines and

others. This will help us as students to get much information related to what we want to know. The readers are expected to understand the information given and convey what has been read. Reading materials are closely related to text. The types of text to be discussed in the textbook are long functional text, they are narrative text, report text, analytical exposition, news item, hortatory exposition, and spoof text. Reading materials are closely related to text and followed by some questions. To drill students' understanding in reading, they are given exercises in the form of questions. Day and Park in Putri (2019) state the form of questions namely, Yes/no questions, True or false, Wh- questions, and Multiple- choice. Questions can be given through exercises in the textbook.

Exercise is a repetition activity in the learning process that aims to make students better understand the subject matter. Kozakin in Fadillah (2019) states that exercise aims to teach receptive skills required for detailed reading comprehension can be divided into several groups depending on the purpose you want to achieve. The exercises given in the form of questions related to the material that has been studied. By doing the exercise, it will help teachers to know the students' understanding about the material. The questions in the exercise must be based on HOTS as stated by The Ministry of Education and Culture (2017) that teachers need to develop HOTS questions, it is important to improve students' thinking ability. Higher order thinking skills (HOTS) consist of the top three levels of thinking namely, analyzing (C4), evaluating (C5), and creating (C6) (Anderson and Krathwhol, 2010). HOTS means the ability to think in the complex process

As one of the learning sources, a textbook plays important role in the teaching and learning process. Sari (2019) states that text books are media which are essential in teaching and learning processes. The existence of textbook gives impact in supporting teaching learning process. Teacher and learners can use a textbook as a source of learning. It contains a lot of information related to subject and provides the exercises. Through textbook, teachers and

students will know easily what lesson to be learnt so that they can make preparation related to the materials. A textbook is one of the significant factors in the success of learning. It can develop learners ability. Teacher and learner can use textbook as a source of learning. It contains a lot of information related to subject and provides the exercises.

Suryani (2018) states that textbook is an important component in teaching and learning process. It can be used commonly as a resource for teachers to teach and students to learn. Teachers often use a textbook as the main teaching materials in order to teach well. It also helps the students to understand the materials given by teacher. The textbooks are an effective resource for self-directed learning, an effective source for presentational material, a source of ideas and activities, a reference source for students, a syllabus where they reflect pre-determined learning objectives.

The textbook to be discussed in this study was "*Bahasa Inggris*" which is published by The Ministry of Education and Culture. It was developed based on the 2013 curriculum. After observing five questions in the first textbook, that is on page 3 in chapter 1. It was found that the questions number 1 until number 5 are categorized into remembering (C1). This showed that the questions belonged to lower order thinking skills because in answering the questions, students depends on the text. The questions can be easily answered by reviewing content of the text.

Pratiwi (2014) investigates the reading exercises in the English textbook entitled "Pathway" for eleventh grade students. The results of this study are analyzing (7.7%), evaluating (1.9%) and creating (0%). It shows that the distribution of the lower order thinking skill obtains 90.4% while the higher order thinking skill only obtains 9.6%. The textbook does not contain all reading exercises that lead to HOTS.

Based on the explanation above, it can be concluded that higher order thinking skills need to be taught to students through reading exercises contained in textbook, but in the textbook they use to learn, it still provides the questions that lead to lower order thinking skills.

2. Review Of Related Literature

2.1 Revised Bloom's Taxonomy

The first type of bloom's taxonomy is published by Benjamin S. Bloom in 1956. There are six levels of thinking in this type, they are knowledge, comprehension, application, analysis, synthesis, and evaluation. Knowledge, comprehension, and application are included in category of lower levels and analysis, synthesis, and evaluation are included in higher levels. In 2001, Bloom's taxonomy was revised by Anderson and Krathwohl. It consists of six levels of thinking, namely remembering, understanding, applying, analyzing, evaluating, and creating (Schultz, 2005).

In the revised version. three levels are renamed, the first level is knowledge still in the way but is renamed as remembering. The second level is comprehension become understanding. Synthesis changes the place with evaluating then replace with creating. The whole cognitive levels of revised bloom's taxonomy can be seen in the following figures.

Figure 1. The Differences between of Original Bloom's Taxonomy and Revised Bloom's Taxonomy

Anderson, et al (2001) provides an explanation of thinking skill based on Revised Bloom's taxonomy:

a. Remembering (C1)

Recollect what has been learned or what has been read.

b. Understanding (C2)

Students are said to understand the material if they can construct the meaning.

c. Applying (C3)

This category is closely related to procedural knowledge. The problem that is often found is the type of task that the solution is unknown by students, so they must find the right procedure or way to solve the problem.

d. Analyzing (C4)

The category of analysis includes the processes of differentiating and connecting.

e. Evaluating (C5)

Evaluating is defined as the act of

making a judgment based on certain criteria and standards. The evaluation category includes checking and critiquing.

f. Creating (C6)

The teaching objectives included in the category of creating are teaching students to be able to make a product. This requires students' creative mindset.

2.2 Higher Order Thinking Skills in Revised Bloom's Taxonomy

Higher order thinking skills (HOTS) consist of the top three levels of thinking namely, analyzing (C4), evaluating (C5), and creating (C6) (Anderson and Krathwhol, 2010). HOTS means the ability to think in the complex process which useful for transferring the knowledge in real life, thinking critically, and solving the problems.The students who already have the higher order thinking skills should be able to examine assumptions and values, evaluate evidence, and present the conclusions with their own words (Pratiwi, 2014).

In summary, The students are intended to be able to think highly in order to solve their problems in learning where students can deliver opinions when the learning process takes place. They are expected to be able to think to the level of creating where students can create a product of the knowledge they have while studying. According to Anderson and Kartwohl (2001) mention there are several verbs and model questions to make it easy when going to categorize thinking skill.

2.3 Forms of Questions

Day and Park in Lestari (2019) classify questions into are five forms which may take to stimulate students' understanding of texts, namely :

a. Yes/no question

Yes/no questions are simply questions that can be answered with yes or no. For example: Does she teach you English? Here, the answers can be given in the form of yes or no. If the answer is Yes, then it becomes: Yes, she teaches me English. If not, it becomes: No, she does not teach me English.

b. Alternative Question

Alternative questions are two or more yes/no questions connected with or. For example: Is this book used for study or for sale? Similar to yes/no questions, alternative questions are

subject to guessing, so the teacher may want to follow up with other forms.

c. True or false

Questions in this form are accompanied by several statements. Statements can be based on text and general knowledge.

For example: Corona virus is very dangerous. In this statement, the answer is true. Corona virus is a disease that can make people die.

d. Wh-questions

Questions beginning with where, what, when, who, how, and why are commonly called wh-questions. This form of question is often used in reading exercises. For example: What is the main idea of the last paragraph? To answer this question, one must look at the text and look for the answer.

e. Multiple-choice

The multiple-choice format may make questions easier to answer than no choice, because they give some possible answers. Students might be able to check the text to see if any of the choices are specifically discussed, and then make the answer. For example:

When was Maria Kim born?

a. 1940   c. 1954
b. 1945   d. 1990

It is not different from the form of wh-questions. To answer this question, one must also look at the text and look for the answer. If the answer is found, then one must choose the answer choices that have been provided.

2.4 Long Functional Text

Long functional text is a text that has long contents and contains certain functions. The function is seen based on the type of text. Pardiyono in Febryani et al (2020) states that there are 13 types of text, namely descriptive, narrative, recount, report, procedure, explanation, hortatory exposition, analytical exposition, news item, anecdote, spoof, discussion, and review.

The textbook contain 5 types of long functional text, they are:

1. Narrative Text is an imaginative story to entertain people. It may cover legends, fables, and folklore.

2. Report text is a text which presents information about an event or situation.

3. Analytical exposition text is a

text that elaborates the writer's idea about a phenomenon on surrounding.

4. Procedure Text is a text that explain how something works, how to make and how to do something.

5. Explanation text is a text that explains how and why something happens in the world.

3. RESEARCH METHODOLOGY

This research was conducted by using descriptive qualitative research design. Ary (2010) states that descriptive qualitative research is conducted to describe the current status of phenomenon that exists at the time of the study. The data of this research were collected in the form of documents where the data already exist, namely the reading exercises. The sources of data took from students' textbooks: "*Bahasa Inggris*" published by The Ministry of Education and Culture and the second textbook is "Forward an English" published by Erlangga. Both are based on the 2013 curriculum for eleventh grade students.

The data analyzed by using the following steps based on Miles, Huberman, and Saldana (2014), namely: Data Condensation, the data in the form of reading exercises selected based on long functional text. Data Display, this research uses tables to classify reading exercises into six levels of Revised Bloom's Taxonomy namely remembering, understanding, applying, analyzing, evaluating, and creating, and the final step is to draw conclusion, In this step, the result explained and conclusion given.

4. DISCUSSION

The first textbook entitled "Bahasa Inggris" published by The ministry of Education and Culture for eleventh grade students. The reading exercises analyzed focus on long functional text. This textbook contained narrative text, report text, analytical exposition, procedure text, and explanation text. It had eight texts in 5 kinds of texts. The exercises listed and classified based on the higher order thinking skills of revised bloom's taxonomy and counting the percentage of each level of the questions used in the textbooks.From the eight texts, there were 40 exercises containing 164 questions.

Table 4.1 The Percentage of Cognitive Level in first textbook

No	COGNITIVE LEVEL	FREQUENCY	PERCENTAGE
1	Remembering (C1)	72	43.90 %
2	Understanding (C2)	34	20.73 %
3	Applying (C3)	10	6.1 %
4	Analyzing (C4)	3	1.83 %
5	Evaluating (C5)	2	1.22 %
6	Creating (C6)	43	26.22 %
	TOTAL	164	100

As shown in the table above, there were 164 questions found in the first textbook, there are 72 questions belong to Remembering (43.90%), there are 34 questions belong to Understanding (20.73%), there are 10 questions belong to Applying (6.1%), there are 3 questions belong to Analyzing (1.83%), there are 2 questions belong to Evaluating (1.22%), and there are 43 questions belong to Creating (26.22%). The highest percentage here is Remembering (43.90%). It means that the questions in the first textbook are still classified as lower order thinking skills.

So, The distribution of HOTS in Bahasa Inggris published by The ministry of education and culture for eleventh grade students is analyzing (C4) = 1.83%, evaluating (C5) = 1.22%, and creating (C6) = 26.22%. From the explanation above, several analyzes given to see how to categorize them into the six cognitive levels. According to Anderson and Kartwohl (2001) mention there are several verbs to make it easy when going to categorize thinking skills.

1. Remembering

The first level in cognitive domain is remembering. According to Agustina (2018), remembering includes the memory of the material that has been studied. In this level, the questions usually use some key verbs such as: recall, underline, recognize, select, show, list, and match. In the first textbook, there

were 68 questions categorized in remembering level. The data were analyzed below :

Data 1 (*Bahasa Inggris*, Text I, Exercise I, Questions No. 5):
    Do you think the prince will stay a fish forever?

Data 2 (*Bahasa Inggris*, Text I, Exercise I, Question No. 9):
    Do you feel sorry for her?

    The questions above, data 1 and 2, must be answered by stating "yes/no", Questions can be answered easily by rereading the text. Based on the operational verb stated by Anderson and Krathwohl (2001), the two questions above need the students to recall the information in the text provided. To answer the questions, they only need to remember what are told in the text provided.

2. Understanding

    The second level in cognitive domain is understanding. Understanding includes capturing the meaning of what has been learned, other than that in understanding usually understand descriptions, tables, diagrams, and directions, (Agustina, 2018). In this level the questions usually use some key verbs

such as: calculates, classify, relate, explain, and identify. There were 34 questions categorized in understanding level. The data were analyzed below:

Data 3 (*Bahasa Inggris*, Text I, Exercise II, Questions No. 14):
    Write them down and share your thoughts with your teacher and classmates!

Data 4 (*Bahasa Inggris*, Text III, Exercise III, Questions No.20):
    Below are given several opinions. Some of them are polite and some impolite. Classify the opinion with the different colors.

    From the questions above, question in data 3 can be answered by sharing the students' thoughts to measure their understanding on the text. In addition, Question in data 4, must be answered by classifying whether it is polite or not. The students need to explain why they give that color and based on the operational verb stated by Anderson and Krathwohl (2001), The two questions above belong to understanding. Thus, both of them are classified into understanding level.

3. Applying

    The third level of cognitive is

applying. it includes the ability to apply a method and ideas to solve a problem (Agustina, 2018). In applying level, the questions usually use key verbs such as: show, predict, solve, illustrate, and modify. There were 10 questions categorized in applying level. The data were analyzed below:

Data 5 (*Bahasa Inggris*, Text III, Exercise 4, Questions No. 22)
    Complete the following transactional conversation: using the role-play approach!

Data 6 (*Bahasa Inggris*, Text I, Exercise 2, Questions No. 11)
    Imagine you are the fish in the story. Can you narrate the story from his of view?

From the questions above, question in data 5, after the students understand, they can apply it by honing the knowledge they have. In addition, question in data 6, from the role given as a fish, it means that the students have to be able to illustrate it into a story. So based on the operational verb stated by Anderson and Krathwohl (2001), the two questions above belong to applying. Thus, both of them are classified into applying level.

4. Analyzing

The fourth level in cognitive domain is analyzing. Analyzing includes the ability to determine how one element relates to another, (Agustina, 2018). In this level, the questions usually use some key verbs such as: analyze, compare, distinguish, conclude, differentiate, and attribute. There were questions categorized in analyzing level. The data were analyzed below:

Data 7 (*Bahasa Inggris*, Text II, Exercise V, Questions No. 22)
    Visualize the story "The Last Leaf" and plan a graphic novel.

Data 8 (*Bahasa Inggris*, Text III, Exercise VI, Question No. 26)
    After the interview, put opinion you have collected on the poster and you can make a Power Point presentation and share it to your class!

From the questions above, Question in data 7 must be answered by visualizing the story then pour it into a graph so that it will be clearer what you have got. In addition, question in data 8 leads to concluding, from the results you get, you are allowed to report it to others. Based on the operational verb stated by Anderson and Krathwohl (2001), The two questions above belong to

analyzing. Thus, both of them are classified into analyzing level.

5. Evaluating

The fifth level in cognitive domain is evaluating. It includes the ability to provide arguments and judgments about thing, (Agustina, 2018). In this level, the questions usually use key verbs such as: debate, conclude, justify, verify, evaluate, judge, critique, and prove. There were 2 questions categorized in evaluating level. The data were displayed in appendix and some of them were analyzed below:

Data 9 (*Bahasa Inggris*, Text III, Exercise VI, Questions No. 33)
Debate with your classmates on this issue. Work in groups of five or ten!

Data 10 (*Bahasa Inggris*, Text III, Exercise V, Questions No. 24)
Choose one of the topics given below. Write your opinion about it!

From the questions above, Question in data 9 must be answered by debating the arguments to get real results. In addition, question in data 10 leads to convey an opinion about a story topic. Based on the operational verb stated by Anderson and Krathwohl (2001), the two

questions above belong to evaluating. Thus, both of them are classified into evaluating level.

6. Creating

The highest level in cognitive domain is creating. It includes the ability to create something from the knowledge that students know and learn is expected to be able to create something useful (Agustina, 2018). In this level, the questions usually use key verbs such as: create, suppose, elaborate, build and formulate. There were 41 questions categorized in creating level. The data were analyzed below:

Data 11 (*Bahasa Inggris*, Text II, Exercise II, Question No. 18)
Write down your reflections!

Data 12 (*Bahasa Inggris*, Text II, Exercise IV, Question No 20)
Rewrite the story "The Last Leaf" using conditional sentences wherever possible!

From the questions above, question in data 11 and 12 must be answered by writing and creating about the story. Based on the operational verb stated by Anderson and Krathwohl (2001), the two questions above belong to creating where with the knowledge they have, students are asked to create it into

new story and make their own reflection related to the story. Thus, both of them are classified into creating level.

It can be seen that the percentage of the questions in reading exercises in *Bahasa Inggris* textbook which belong to remembering is the highest. This showed that the majority of the reading exercises in this textbook are classified as low-level skills or lower order thinking skills (LOTS). The distribution of higher order thinking skills (HOTS) in *Bahasa Inggris* was only 29.27%, and for the lower order thinking skill (LOTS) was 70.73%. Besides, the textbook contains all the cognitive levels. It means, *Bahasa Inggris* textbook which is published by The Ministry of Education and Culture is recommended to be used as the source of teaching material. This study has same results with the recent studies about HOTS question analysis in the textbook. Those studies are from Sinaga (2017), Lubis (2016), and Putri (2019). The results of these studies indicated that the percentage of LOTS question is higher than HOTS question.

In addition, this study also supports previous study conducted by Pratiwi (2014) who examined English book for eleventh grade students, saying that reading questions in the textbook she analyzed did not cover all cognitive levels that lead to HOTS. She got that creating was not in the scope of asking the question. She regretted that creating was not included in it, because by inviting students to create something, it could hone students' abilities and insights. Students can realize their knowledge into something that produces.

5. CONCLUSION

After analyzing the data and elaborate the findings, conclusions were drawn as followings: the reading exercises in the first textbook covered all of the cognitive levels, they are Remembering (43.90%), Understanding (20.73%), Applying (6.1%), Analyzing (1.83%), Evaluating (1.22%), and Creating (26.22%). So from the result, the distribution of higher order thinking skill in the first textbook which consisted of analyzing, evaluating, and creating obtained 29.27%, and

for the lower order thinking skill obtained 70.73%.

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