Implementing Bloom's Revised Taxonomy in Analyzing the Reading Comprehension Questions

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Abstract

Bloom's revised taxonomy is the most frequently utilized as an instrument for objective-as a basis for assessment and as a representation for producing objects that evaluate processes ranging from memorization to more complex cognitive levels such as knowledge assessment. It is predicted that the mix of cognitive levels in the 2013 curriculum will drive students to think critically, to think creatively, to be problem solvers, and have a decision maker competencies. Using teaching resources such as textbooks as one of the learning media to train students' critical thinking. The goal of this research is to figure out the cognitive levels in the revised Blooms' Taxonomy utilized in The Ministry of Education and Culture's (MOEC) textbook "Bahasa Inggris SMA/MA/SMK,MAK grade X." The qualitative approach and content analysis were used in this study's research design. This study analyzed the proportion of the lower-order thinking (LOT) and the higher-order thinking skills (HOTS) questions based on the cognitive levels Bloom's taxonomy. The researcher compiled a list of the reading comprehension questions and counted degree of cognition in each book chapter. According to the findings, there are 114 reading comprehension questions. Lower order thinking (LOT) is the most prominent level in this book. Lower-order thinking skills (LOTS) account for 69 percent of the total, whereas higher-order thinking skills (HOTS) account for only 8%. It was suggested that the material of the textbook be expanded upon, with a greater emphasis on Higher Order Thinking Questions.

Keywords:*Reading Comprehension, Questions, Bloom's Taxonomy*

INTRODUCTION

In Indonesia, English occupies a special position in the educational system. Secondary schools require students to take English as a subject. The goal of teaching English in Indonesia is not only emphasized on speaking but also on the ability to read. Reading is the prerequisite in learning all subjects. According to Manarin, Carey, Rathburn, & Ryland(2015) reading is seen as the ability to understand vocabulary in order to paraphrase and make a summary of information from the text. All the four skills in English must be integrated into the literacy method to teaching English in Indonesian secondary schools. Among these four skills, reading has the most important role in achieving that goal. Furthermore, for many students, reading is the most important skill to master. By reading, the students can develop the knowledge, and they can know more

about their surrounding and the development of the world. Students will make more progress and develop in all academic areas if their reading skills are improved. Reading is more than acquiring information from printed materials. Manarin et al. (2015) also adds that when someone is reading, he also contributes to the reading act. This means that the readers' knowledge, purpose, perspective, skill level, and processing style that the author assumed the readers would have, will influence the success of the reading. Reading, according to him, is synonymous with thinking.

Because reading requires thinking, a reader must be cognitively awake and mentally alert if he or she wishes to read properly. In other words, reading is a mental process that entails assessing the content read and determining the author's and readers' goals in writing. Similarly Edwin & Gita (2020) stated that reading appears to be a critical ability for improving pupils' English proficiency. As a result, employing a text book will aid in the teaching of reading.

Armstrong (2016) presents the stages of thinking skills in the cognitive domain of Bloom's Taxonomy. The thinking skills cover six stages of cognition which are remember, understand, apply, analyze, evaluate, and create. Borich (2016) groups the six levels of cognition into LOT and HOTS. Those levels concern with the acquisition of actuality, regulation, and action orders. The HOTS comprise analyze, evaluate, and create. These levels deal with the acquisition of concept, patterns, and abstractions.

To train learners to practice the thinking skills, teachers can use questions in reading comprehension textbook. A textbook, according to Assaly & Igbaria (2014, 24-38) is a vital source that offers the structure for activity to enhance students' thought as well as activity; it not only transmits knowledge and information but also develops and supports HOTS processes. Based on what is commonly observed in the English lessons, questions are used to check students' comprehension of reading texts. Borich (2016) also adds that Questions are helpful aids in the process of learning and teaching. The goal of asking questions is to pique learners' interest and attention, as well as to assist them in identification and examining, reminding particularreality or details, administering, motivating prominent thought processes, administering and arranging learning, and approving affect interpretation. Students will improve their thinking skills by answering those questions. According to Panggabean dan Asariski (2021) in Farmer's book (2006), questioning is a skill that may connect the unknown to the known. As a result, it's critical that kids practice asking questions as part of their classroom activities.

In the context of Indonesia, Curriculum 2013 put forward "Bahasa Inggris", published by (MOEC) in 2018. The book is employed throughout levels and most of the units are supported by different reading texts from various genres. The genres of the text are caption text, news items, and procedures. This textbook also comprises with the one type of question only, namely essay questions. The (MOEC) stated that students' textbooks is precious to be utilized in the process of learning and teaching. Subsequently, textbooks are important medium for teachers in the classroom. The government has provided textbooks to all of Indonesia's provinces to meet the demands

of pupils. These books were created in accordance with the Curriculum 2013 and published by the (MOEC) . They were available for all disciplines, including English.

Dealing with the textbook that has been given by the Government, the questions in the textbook are expected to help teachers in the teaching process and simultaneously they are useful to practice the students' thinking skills. Since Curriculum 2013 has been introduced in Indonesian Curriculum and the government Educational in Quality Insurance Institution (LPMP) needs the educators to help learners to focus on their critical thoughts too. The government hopes that learnershave the ability to think more critically and analytically in an effort to tackle difficulties that arise in their daily lives. Furthermore, Febrina, Usman, and Muslem (2019, 1-15) states that the government of Indonesia, through the Minister of Education, chose to increase the analytical level test or HOT questions by 10% annually.

In relation to this, several studies have been conducted by some researchers dealing with Reading comprehension Analysis Questions According to Revised of Bloom's Taxonomy. The last study was coming from Abdelrahman (2014). During the academic year 2012-2013, he identified and assessed the kinds and degrees of questions found in Jordanian tenth-grade English language textbooks. He found that the English textbook was on the LOTS questions more than to be on the HOTS questions. Furthermore, Atiullah, Fitriati, & Rukmini (2019) conducted a similar study "using revised Blooms' Taxonomy To Assess HOTS in Reading Comprehension Questions Of English Textbook". Remembering was detected in 134 of the 158 items, while HOTS were only identified in 24 of them. The reading comprehension problems in the English textbook for Year X of high school were found to be lacking in HOTS. Compared to the writer's study which is An Analysis of Reading Comprehension Questions Based on the Revision of Bloom's Taxonomy" However there are differences in terms of the English textbook used in the study and the grade which is used too while the similarities are the questions used as the data are reading comprehension questions, and the parameter using the revised of Bloom's taxonomy of cognitive domain. There are three stages of the revised Bloom's Taxonomy utilized in the textbook Bahasa Inggris SMA/MA/SMK/MAK grade 11 semester 1, they are analyzing, evaluating, and creating level, were explored in a separate study. The results revealed that the textbook's most dominating level was higher order thinking skills (HOTS). It was 66.8% of 100 percent for (HOTS) and 33.4 percent for (LOTS). Shara is the further researcher on the list (2021).Her research focus on determining the kinds of reading comprehension questions found in the textbook "Forward An English" for class XI, employing the revised Bloom's taxonomy's cognitive domains, as well as the percentage of reading comprehension questions found in each cognitive category in the textbook "Forward An English" for class XI.

The results revealed that the textbook's percentage of cognitive levels is imbalanced between LOTS and HOTS. The writer is interested in analyzing the proportion of HOTS and LOTS questions in the reading comprehension English textbook based on the following description. Further, this study investigates the presentation of HOT in the textbook. For the purpose, the writer has decided to choose an English textbook to be

analyzed. The writer has selected "Bahasa Inggris"SMA/MA/SMK,MAK grade X published by The (MOEC) as the material for her analysis in the study.

METHOD

The researcher utilized the descriptive research to analyze this study in Bahasa Inggris for SMA/MA/SMK/MAK textbook grade X based on Bloom's Revised Taxonomy. Forehand (2010) defines a descriptive strategy for describing an event in numerical terms that is used in several investigations. They employed content analysis approach to find questions in reading comprehension exercises, according to the report. It is a thorough research method that is utilized to examine things and other materials. Furthermore, Koss (2015) describes content analysis approach as a versatile study method that may be implemented to any kind of texts. Then it's utilized to organize and categorize sections of the text using a logical and methodical framework from which conclusions can be formed. It can be used to analyze both qualitative and quantitative data. Drisko and Maschi (2016) describes content analysis approach as a process of examining written, spoken, or visual communication messages in order to perform in-depth analysis on an object. It's also used to figure out how other expressions, texts, and images are interpreted. The researcher selected this book because is designed to prepare the students to continue to the advanced level. "Bahasa Inggris," a book written Utami Widiati, Zuliati Rohma and Furaidah and published by The Ministry of Education and Culture 2018, is one of the examples of English textbook which is revised in 2018. This "Bahasa Inggris" textbook for grade X consists of eleven units. Each unit is supported by different reading texts of different genres. The genres of the text are caption text, news items, and procedures. This textbook also comprises with the one type of question only, namely essay questions. The questions found in this book can be grouped into different levels of cognitive complexity. They are, remember, understand, apply, analyze, evaluate, and create levels of cognitive domain of Bloom's revised taxonomy Forehand (2010).

Diagram 3.1. The content of "Bahasa Inggris" for SMA/MA/SMK/MAK GradeX
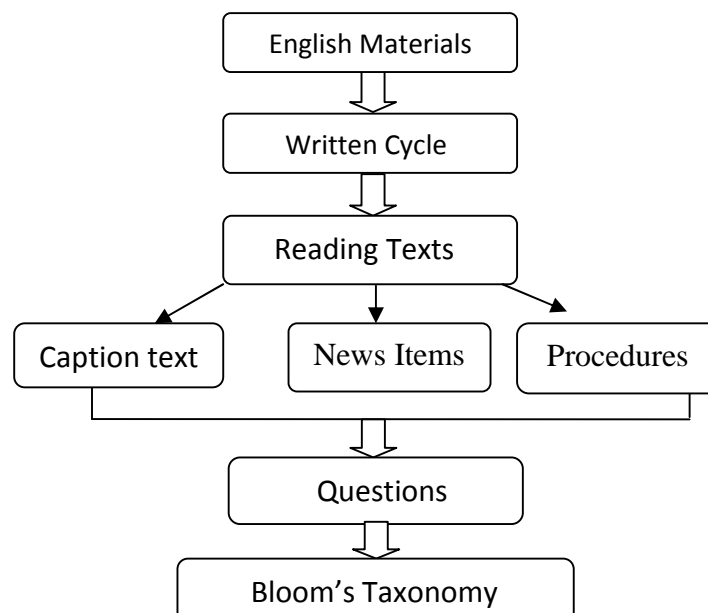
RESULTS AND DISCUSSION

The findings of this research are presented in Graphic 1 which presents the stages of appearances of the Reading Activities in the six level of the cognitive dimension in every of the eleventh chapters of the textbook.

Graphic 1: The Frequency of the Reading Activities in the
Six Levels of Cognitive Dimensions
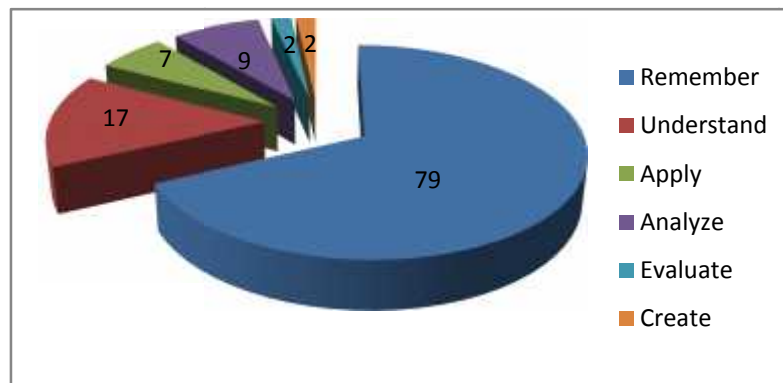
When the researcher used Bloom's Taxonomy to classify the reading comprehension questions in every chapter, the researcher discovered that the remembering level was the most dominating cognitive dimension. The frequency of Remembering was 79 out of 114 questions. The second dominant one was Understanding level with the frequency of 17 out of 114. The third level was analyzing level. The frequency of that level was 9 out of 114. Then, Applying level belonged to the fourth level of cognitive domain. The frequency of that level was 7 out of 114. The last levels were Evaluating and creating. The frequencies of both items were the same. It was 2 out of 114.

Based on the cognitive frequencies listed above, it's clear that this book doesn't give students a good mix of HOTS and LOTS questions. The HOTS and LOTS percentage will be shown in the following table:

Table 1. The Percentage of Cognitive Dimension Distribution in the BAHASA
INGGRIS for SMA/MA/SMK/MAK Grade X Semester I textbook

No	Cognitive Level		Frequencies	Percentage	Number of Questions
1	LOTS	Remembering	79	69 %	103
2		Understanding	17	15 %	89%
3		Applying	7	6 %	
4	HOTS	Analyzing	9	8%	
5		Evaluating	2	1.5%	13
6		Creating	2	1.5%	11%
		Total		100	100

According to the table above, the English textbook contains a high frequency of LOTS. Out of 114 questions, 103 were correct. The maximum level that was utilized was

remembering level which reached 69%, then followed by the understanding and applying which have different percentages. They were 15% and 6% for each level. While the HOTS receives 8% only, Then for both Evaluating and Creating have the same portion of percentage which are 1.5%.

As the researcher previously mentioned in the background, the questions which have HOTS are assumed as questions which assist the progress of the critical thoughts. In contrast, the questions in which the majority of the questions provide the lower-level cognition are assumed as the questions discouraging students to think independently or to go beyond the content in their texts and workbook.

Reading comprehension questions in "Bahasa Inggris" textbook grade X also encourage students to gain more information. Those questions help the students to check whether they comprehend the passage or not. If the students answer the questions well, it means the questions in "Bahasa Inggris" textbook are effective. Having shown the findings above, the writer concluded that the questions in "Bahasa Inggris" textbook cover the revised Bloom's taxonomy. However, from remembering up to creating are not all levels presented in the reading questions in this book. The question found in the book are mostly remembering and understanding questions while other levels like applying, analyzing, evaluating, and creating are not many asked in the book.

The finding of the analysis reveals that the maximum percentage of the questions belong to the LOTS in which the remembering level as the minimum level of learning outcomes in the cognitive domain receives 69 %. At this level of knowledge, students are mostly asked to recall and identify from the printed materials. The questions are knowledge level which include repetition or memorization skills, only asking the definition of a term, W/H question provided in reading texts, etc. 15 % of the questions belong to the comprehension level. The questions included in the comprehension level are questions asking about the main idea of text (e.g: How are the ideas of the text ?), understanding information by explaining and summarizing portions of it (e.g; questions from procedure example: what information do you get from the text?). Only 6 % of the questions fall into the application level. The application level questions require students to apply what they've learnt in a real-life situation. (e.g; what other responsibilities does she have?). Then, 8% falls into the analysis level.

The question belonging to the analysis level requires students to dissect a material into its constituent elements in order to comprehend its organizational structure (e.g; the question which are provided in caption text, eg; how do you compare your quotes and the quotes in the caption?). Furthermore, the last is 1.5% belong to evaluating and creating. The examples are: what outcome would you predict from this text? And knowing about this fact the writer can simply say that this is not good for the students because it doesn't improve the students' level of thinking.

In general, the number of remembering questions is greater than understanding and application. The number of remembering questions, understanding, and analyzing are greater than applying, evaluating and creating levels.

The findings of this investigation contradicted those of a researcher named Febrina (2019). Her findings revealed that the textbook she examined placed a strong emphasis on HOTS issues. It was because their objectives were different and the textbook she studied was different. The findings of this study revealed that, while this textbook "Bahasa Inggris" for SMA/MA/SMK/MAK Grade X follows the Indonesian curriculum, it falls short of the ideal book standard in that the reading comprehension questions emphasize LOTS rather than HOTS, which are more important in stimulating students' critical thinking.

CONCLUSION

The finding of the analysis showed that the maximum percentage of the questions belong to the LOTS in which the remembering level as the minimum level of learning outcomes in the cognitive domain receives 69 %. Then, 15% of the questions belong to the understanding level. Only 6 % of the questions fall into the applying level and 8% fall into the analysing level. Then evaluating and creating level only received 1.5%. At this level of remembering, students were mostly asked to recall and identify from the printed materials rather than interpreting or grasping the meaning of materials. Therefore, there should be high-order thinking skills questions in "Bahasa Inggris" textbook Grade X so that the goal of teaching English can be achieved.

In line with the findings which have been mentioned above, it is recommended for the senior high school teachers to select the textbook carefully because the text books which are used by the senior high school students must provide more higher order questions rather than the lower order questions particularly the textbook for the twelve grade students due to those questions will assist them to be critical thinkers in the future. Furthermore, the MOEC considers the levels of thinking skills questions in the textbook to be utilized for twelve graders because the portion of higher order question and lower order question in reading activities there are not balanced. On the other hand, due to this research only to identify the frequency of reading comprehension questions appear in the textbook and the portion of higher order questions and the lower order questions therefore the researchers want to suggest for the further studies to dig more about the teachers' teaching strategies of HOTS.

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