Analysis Reading Comprehension Questions by Using Revised Bloom's Taxonomy on Higher Order Thinking Skill (HOTS)

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Abstract

This study used revised blooms taxonomy on higher order thinking skills (HOTS) which aimed in identifying reading comprehension questions. It was a qualitative research. The data taken in this study was reading comprehension question by using descriptive text. The objective of this study were the students of 8th grade. The data taken in this study was reading comprehension questions by using descriptive text. The objective of this study were the students of 8th grade junior high school in SMP Swasta Talitakum Medan. The total of the students were 12 students. The Reading comprehension question consisted of fifteen questions in the text that had used HOTS and REVISED BLOOMS TAXONOMY criteria. The result consisted of two cycles . The first cycle showed there were 6 students who scores above KKM and in second cycle there were six students who scores under the KKM. From the result was found there were no increase and decrease of the fulfillment scores from the students and the average scores were balance. HOTS oriented English learning could increased student analyze, evaluate and create the reading comprehension questions by using Revised BLOOMS TAXONOMY ON HIGHER ORDER THINKING SKILL (HOTS)

Keywords: Reading Comprehension, Blooms Taxonomy, Higher Order Thinking skill (HOTS)

Introduction

English was very important for students to learn it as the foreign language in their subject at school and it was be an international language. English consisted of four skills that should be mastered by students, namely: listening, writing, reading and also speaking. Furthermore, nowadays reading was important of language skill that should be learned by students. Thus, it was a learning process of presenting information and getting meaning of what the readers were reading. It was a process of understanding and comprehending passage or text. It also described as an interactive cognitive process in which the readers are influenced by the text and author's perspective (Mikulecky, 2011). Through reading, readers are gaining new knowledge and important information from the text. In learning English, there are four skills be mastered for students (reading, writing, speaking, and listening) to train the student's understanding to comprehend what they read. Reading process affirmed the reader's brain, emotions, and confidence which carried out into the reading (Weaver,2009:10). Furthermore, the readers comprehended and applied the information in written form.

Reading processes were the ways for the next level in guessing, carrying and finding important points in reading, students should be taught in using their understanding of unknown elements like ideas or simple word. (Grellet,2004:7). Reading gave many advantages for students, because they could practice their knowledge by giving the response, of what they need. Through reading, students Will be able to build, to create, and to construct the meaning of a text. Reading could not separate from comprehension. Thus, Comprehension was one of the reading purpose, and a decoding process in gaining text information. They need comprehension in reading the text to gain more in constructing meaning, getting idea and information. They are reasonable and accurate by connecting what has been read to what readers already know and think. By knowing and understanding the meaning of printed word, readers need reading comprehensively. According to Sanchez (2010:5) stated that Reading comprehension was affirmed both of the author and the readers' skill to use their background skill of knowledge and thinking in comprehending the text.

Reading comprehension was a process of reading and gaining the information of text. According to Klingner (2007), there are 3 ultimate goals for reading, they are namely: gaining meaning, learning new information, and experiencing pleasure. Reading comprehension interpreted as a process of summarizing in the reading text by the reader. Reading comprehension needed many abilities, they are making predictions, asking questions, making conclusions, drawing conclusion, synthesizing information, identifying the main idea of the passage, summarizing and also analyzing.

Reading covered the understanding elements among symbols ,letters, words, sentences and meaning, It was the goal to increase comprehension of making sense

words, sentences, connected text, involved the readers in making inferences and reading questions. Thus, reading was a necessary medium for students in understanding the reading questions. Furthermore, reading texts usually completed by questions and become the important parts of reading purposes in guiding students to think critically. Reading comprehension questions had used HOTS in analyzing Category. It was one of the ways to increase learners to attest and stimulate students to think critically by using reading comprehension questions. Students should have the critical and logically thinking skills which appropriated to their capability that they had. By using critical thinking, students had a skill to analyze the passage or text without checking dictionary to gain some difficult words. The Critically thinking was the rationally of intellectual skill in analyzing and assessing information. (Anderson and Krathwol, 2001), critical thinking indicated a skill to divide the materials became each section and also to comprehend the composition of text. Coherency it means to indicate a skill to rearrange the component parts into coherent and connected each other. Thus, evaluation indicated the assessing skill of specific purpose which usually directed in higher order thinking skill (HOTS). Moreover, Yousefi & Mohammadi (2016), mentioned an important interrelation both of reading comprehension and critical thinking skill. It was one of the important ways to motivate and support students' critical thinking by applying questions of reading comprehension.

Based on curriculum revised in 2013, it showed that students have to increase the main important features in designing learning teaching, involved the constructing of character and literation. They consisted of 4C namely (critically thinking, communicatively, collaboratively and also creatively. Furthermore, Higher order thinking skill (HOTS) is now becoming vital in learning education in the world. Higher order thinking skill(HOTS) aimed in affirming students to gain skill in analyzing, evaluating, and creating the ideas which connected to the Hots oriented problems. Higher order thinking skill applied the comprehensively thinking process to obtain extensive challenges. Furthermore, it claimed students to adjust new knowledge and information, in order to provide information in achieving the probability of the answer in new cases. They were able to gain the right answers in learning process (Heong et al ,2011)

Thus, curriculum 2013 focused on student-centered learning rather than teacher-centered learning. Furthermore, it is the way to improve students' problem solving and HOTS ability as designed in curriculum 2013 which focused for students, even more do not for teachers and appropriated as one of the implementation of curriculum 2013 by using HOST. The cognitive level of junior high school was domain analyses. Thus, cognitive domains had 6 levels namely: Analysing, Understanding, Remembering, Evaluating and Creating levels in order to improve HOTS in analysing the reading questions by revised blooms' taxonomy in applying them in teaching learning processes. Classroom activity provided the important

opportunities for teachers and students especially for students to increase students' hots, and the teacher as a facilitator for students by providing several questions which oriented in higher order thinking skill (HOTS) directly.

Furthermore, they could determine their reading activities that the teacher has given to them and they could know how to answer, criticize and relate them each other. Moreover, the higher order thinking skill (HOTS) had been a main subject in teaching learning education and considered to the information of global era now, especially in English language. In learning activities students are encouraged to think critically. They have to think and to solve their own problems and the teachers facilitate students by providing higher order thinking skill with reading comprehension questions. HOTS is the influential aspects of learning and teaching especially in high education. It designed to helpful a successful learning process such as gain the knowledges and able to use the knowledge in circumstances real life of students.

There are some previous studied that have been made by some researchers who got same topics toward analysis of reading comprehension based on High Order Thinking Skill. The first study was "Thinking Order Skill of Reading Comprehension Questions in English Textbook for Eleventh Grade of Senior High School based on Bloom's Taxonomy" by Nurasiah Lubis (2016). The second study conducted by Muslem, et al (2018) "Analysis of Reading Questions by Using Revised Bloom's Taxonomy on Higher Order Thinking Skill (HOTS) ". SMA/MA/MK/MAK grade Eleventh semester 1. with title "An Analysis of Reading Exercises in Pathway to English Textbook for the Eleventh Grade of Senior High School Students ". (Pratiwi,2014). Thus, this study aimed in analysing the cognitive domain levels on higher order thinking skill HOTS) revised (2001), they are Analysing (C1), Understand (C2), Remembering (C3), Applying(C4), Evaluating (C5), and Creating (C6) .

The questions of this research are:
1. What were the cognitive domains of the questions in the reading comprehension on higher order thinking skill (HOTS) by using revised blooms' taxonomy?
2. How do blooms' taxonomy can be related with the higher order thinking skill questions in the reading comprehension?
3. How were in analyzing the higher order thinking skill questions in the reading comprehension by using blooms' taxonomy ?

This study aimed to increase students' comprehending on higher order thinking skill (HOTS) in reading comprehension by using revised blooms' taxonomy. Thus, the study was conducted on 8th grade junior high school students of SMP Swasta Talitakum Medan. The main objective of this research which analysed the case of reading comprehension questions on higher order thinking skill by using blooms' taxonomy revised of eighth grade junior high school.

Literature Review

Bloom's Taxonomy

Bloom's revised Taxonomy is set of by the teacher as a learning objective for students in practicing. Teachers are be able to deal directly with questions whether the evaluation questions are closely related to the requirements of the scientific categorization of the bloom taxonomy at different intellectual level. The specific level of Bloom's models are commonly forms in the Chang and Chung (2009) which classify and identify the cognitive level of Bloom's revised taxonomy to English questions building indicate to Lister and Leaney (2003) in the cognitive domain. Taxonomy, means for classification. Furthermore, the Taxonomy of Bloom which was expanded by Bloom and was one of the conceptual arrangement's division in the capability of critically thinking. (Marzano and Kendall, 2007), Bloom's taxonomy was expanded in 1970 and used the objective assessment method in order to apply it as the indication in constructing the assessment of capability in under level against the capability in upper level. (Marzano and Kendall, 2007). Bloom taxonomy classified thinking into six cognitive levels of complexity, they are namely: knowledge, comprehension, application, analysis, synthesis, and evaluation. The taxonomy of bloom divided the capability of thinking which consisted of six conceptual complexities they are namely: intelligence, comprehending, practicing, analysing, integrating and evaluating. They indicated the categorization which arranged each other both of handy and complicated and also from invent to abstract form. Every extents should be focused before removing into upper level (Bloom). It would be over defying in each extent which removed into categorization of upper level, furthermore they started from base level and called them by the capability of handy remembering and also developed them when passing the processing of upper level conceptual and became the evaluating level. Students were capable when they could remember and comprehend the data in order to apply each other. The basic or lowest level in the taxonomy focused on acquisition of knowledge and at this level, students were simple to memorize, recall, list, repeat information. In the second level, students are able to classify, describe, discuss, and explain information,

Furthermore, in the last level, students were capable in demonstrating, interpreting, and applying they have mastered, then they were capable in utilizing the source of information by solving problems. Beside of that, students were capable in examining, comparing and distinguishing in getting the source of information. In the highest of second level, students constructed the elements parts or formula on various aspects, they were capable to unity each other. The last, students at the upper level made the judgements both of the mark and scheme or subjects. The taxonomy of bloom could assist in improving the assignment aspects, and to create the questions concept and also to solve the problems.
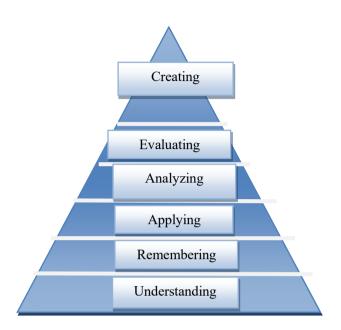
Types of Questions

Bloom (1956) has developed taxonomy to arrange and analyze questions in diverse of thinking skill level. In conceptual thinking skill, the scopes of taxonomy consisted of under level against upper level. According to Anderson and Krathwol (2001) developed a revised of bloom taxonomy. The revised bloom taxonomy developed two main frameworks, they are cognitive process and knowledge process. There were only consisted of a few indicated changes. (Stanley & Moore ,2013). The first changes was the using of action verb. Another changes were the conceptual levels position, evaluation (C5), formed before creation (C6).

(1) Remembering level, involves storing, identifying and recalling specific long term memory knowledge.

(2) Understanding Level, building context from oral, written, and graphic messages through interpretation, exemplification, classification, summation, inferring, contrast, and clarification.

(3) Applying Level, performing a method or using it by execution or implementation.

(4) Analyzing Level, the capability to divide subject became several components of constituent and determined the whole connection of the goal or parts by separating, associating, arranging, and connecting them.

(5) Evaluation Level, capability to make decision based on criteria and expectation through regulation and criticism.

(6) Creating Level, reorganizing elements in a new pattern or arrangement to form a coherent or functional whole, by creating, preparing, or processing them.

This, in the Lower Order Thinking Skill, Remembering is the first level of thinking process, which refers to students' activities in describing something, making a list, telling and mentioning set of topics. While in understanding level, students learn how to understand what they read. In understanding level, it refers in retelling, inferring, interpreting, explaining, predicting, and also outlining knowledge. The last level is Applying, it is a level of to make use of knowledge in new situation.

The stage of thinking process in Bloom's are completed by Anderson & Krathwohl (2001), they make a significant framework in identifying and preparing instructional objectives, activities and assessment system. The revised blooms' taxonomy has cognitive categorization of process, enhancing of complexity, and also four categorizations of knowledges. Cognitive levels of thinking can be described by following table below:

Types of Knowledge Level

According to Anderson and Krathwol (2001), there are four types of knowledge level they are namely:

The Dimension of knowledge	The dimension of Conceptual Process		
	C4 Analyze	C5 Evaluate	C6 Create
Factual Knowledge	Making Structure, Classifying	Comparing Correlating	Joining
Conceptual Knowledge	Explain, Analyze	Examine, Interpret	Planning
Procedural Knowledge	Distinguish	Conclude, Resume	Arrange, Formulate
Metacognitive Knowledge	Create, Find	Make, Asses	Realization

1. **Factual Knowledge**

It is a basic level of study and specific disciplines. This level refers to important facts, terms, aspects or components for students to know and understand how to solve a problem. They are includes in symbols, signs and name of person or history.

2. **Conceptual Knowledge**

It is a classification of knowledge, Hence, according to Anderson and Krathwol (2001) HOTS questions is recommended using in several forms for the class assessment.

HOTS questions inspired teacher to arrange them for education level. The characteristics of HOTS questions are described below :

3. Measurement of Capability in High Order Thinking Skill

The Australian Council for Educational Research (ACER) declares that higher order thinking skill is the process of analyzing, reflecting, reasoning, implementing the concept, organizing and also creating. Furthermore, HOTS questions contains the capability of problem solving, critical thinking, creative thinking, reasoning, and making decision. The creativity to solve HOTS issues contain of:

a. The skill to response unfamiliar questions.
b. The skill to evaluate the strategy, which is apply to solve problems of different point of view.
c. The skill to gain new solving system, which is different from previous system.

4. Using of Several Types of Questions

a. Multiple Choice

HOTS questions is obtained from the stimulation of an actual situation. Multiple choice questions contain of any options. These options consist of the key answers that contain of correct answer and the distraction as incorrect answer and become the trap for students if they do not master well. Therefore, students required to obtain correct answer connected in using the stimulation of knowledge concept logical and reasoning. Furthermore, the true answer will gain 1 score and false answer will gain 0 score

b. Complex - Multiple Choice (Yes/No or True/False)

This question type aimed to find out students' understanding of the comprehensive problem between one statement to others. The complex- multiple choice is prepared for students which is completed with some statement that connected to the reading stimulation. The process is choosing true/false or yes/no answers. The structural of true and false statements are provided randomly and non systematically in following spesified rules. Good systematically rules will guide students to select true answer. Hence, when students give true answer for the statements, they will gain 1 point and if they make a mistake in the statement, they will gain 0 point.

c. Short Answer

Type of Questions that needs short answers namely words and phrase which is apart off from the statement itself. The Characteristics of type short answer questions, they are namely:

a. Using direct statement or command
b. Using clear question and command
c. The length of whole answers in questions are expected relatively same

Method

Researchers used qualitative methods in this study. According to Shank (2002) defines qualitative research as "a systematic empirical change into meaning research". Reading comprehension is usually followed by practice questions and questions. Bloom's Taxonomy is suitable for reading comprehension questions to help students think critically. This study collected information about the ability of students of SMP Swasta Talikum Medan grade eighth to HOTS in Blooms Taxonomy.

The researcher asked the teacher to compile a lesson plan reading oriented HOTS and Develop research instruments such as observation sheets, notes and documentation. After the learning plan is in place, the researcher will observe the actions taken by the student, either a positive or negative response. In this case the teacher also participated help observe and take notes activities and student responses during learning. Researchers will use 2 cycles for their research. Evaluate the process of action from the learning outcomes reading based on HOTS in cycle 1 is called reflection. The results of the reflection will become a reference in order to improve the results of the next cycle. Instruments that are the object of reflection is the data from the sheet observation of student actions during the process learning, material suitability teaching and methods used in learning process, and notes results from peer teachers who observes the research process implemented. Furthermore, the results of reflection cycle one is analyzed and searched solutions to be implemented on cycle 2. In other words, on cycle 2 was made improvements to problems that occur in cycle 1 by changing plans and managing anticipate problems during research.

The observation sheets in this study was used to observe each processes of HOTS-based learning so that students can improve their abilities. The observed aspects include implementation of learning by the teacher starting from activities and student activities in learning. Field notes are used for document in writing student responses to the process the learning that's going on. The test in the form of a pre test in this study in use to measure ability read in analyzing and Evaluate each student. Test form and the assessment criteria used in both cycles are the same, namely aim to test skills reading students. Researchers will test their abilities HOTS of students by giving a pre-test using cognitive skills from Bloom's revised taxonomy, namely intelligence, comprehending, practicing, analyzing, incorporating, and evaluating. In order to be analyzed, the data is taken by using the instrument appropriate data to ensure that the data is valid.

Results

Cycle 1

The implementation of first cycle consisted of two meetings which is implemented on April 8th 2021 with the material of introducing Descriptive text. This learning is implemented on eight junior high school with the total were 14 students. In introduction activity, teacher started their learning before giving motivation and also explained the learning material that will be done. Furthermore, teacher defined the learning objective in order the students can identify social function, generic structure and language features of descriptive text, resume the oral and written text by their own words and the final of introduction activity, teacher started to give appreciation by giving question to the students about definition and generic structure of descriptive text. This test is done twice in the cycle. They were first and second cycle. Test form and the assessment criteria are used in both cycle, namely intended to test the skills of student reading. The question consisted of fifteen questions, five questions among them will test student HOTS ability namely: analysis, evaluation an create.

In the main activity, teacher gave the reading test paper to the students and gave time for them to answer the question individually. In the closing activity, teacher ordered students to answer the multiple choices of the reading test. Furthermore, students were given hots oriented learning. Teacher got the result of the process to carry out positive benefits for students. In the first cycle, students obtained the enhancement before the implementation. Students excited to answer the teachers question. And then, teacher leads students to make a conclusion and

important point of descriptive text by giving reading test that has been given previously to the individually. Students can think creatively, to answer, retell the text by their own words and also they know how to find unfamiliar words from the text.

In this activity, students were more active and they knew how to differentiate descriptive text well by giving descriptive text criteria to improve students evaluation skill (Moove and Stanley 2010).

Cycle 1

Table 1. The fulfillment table of students learning achievement (cycle 1)

No	Scores	Frequency
1	86-100	3
2	76-85	2
3	66-75	1
4	56-65	0
5	46-55	2
6	35-46	4
Total		12

The first cycle of the table above, it indicated the students average scores were under the KKM, while fulfillment score it was 75. However, there were 6 students those who score above the KKM fulfilment score. From the students average of fulfillment score in the first cycle, it can be concluded that the score is obtained under the KKM and will be the base next for second cycle.

Cycle 2

Table 2. The fulfillment table of students learning achievement (cycle 2)

No	Scores	Frequency
1	86-100	3
2	76-85	2
3	66-75	1
4	56-65	1
5	46-55	3

6	35-46	2
Total		12

The second cycle above, it indicated the students average scores are on low in KKM fulfillment score, while fulfillment score it was 75. However there were 6 students those who scores under the KKM fulfillment, from the level score of students , who obtained low of KKM score were 6 students.

Discussion

The fulfillment table of student learning achievement among first and second cycle obtained the balanced average score level. The low mastery of English makes students difficult understand English text (Rios & Valcarcer 2005). By applying Hots-Based learning, The researchers, tried to create the reading learning process that has variety and attractive. The first and second cycle showed the equivalence of the average score obtained by students . Furthermore, it could be concluded that the researchers tried to provide a relevant way, thus students are able to think critically in analyzing a reading text. Therefore, there were several students who scored above KKM.

Conclusion

This research indicated the objective case of reading comprehension questions by using revised blooms' taxonomy on higher order thinking skill (HOTS) in Descriptive text at grade 8thin SMP SWASTA TALITAKUM MEDAN. The purposes of this research were to identify the reading comprehension question based on HOTS categories . They were analysis, evaluations, and create. The data taken from reading comprehension text by using observation sheets.

Based on reading comprehension text, it had fifteen questions 5 of the questions   were HOTS questions. The higher order thinking skill roles in reading comprehension questions, were important to increase and to improve students critical thinking.   On the other hand, the questions were not only assessing the ability in answering reading comprehension questions, but it was the ability to analysis, evaluate and also create new ideas of the questions. Thus, it could build the students critical thinking through the questions. The number of the question needed high cognitive domains in the text and could enhancement of students' reading skill. It could be seen of the students' ability to catch on the information of text. Furthermore, several of students were able to criticize text by using their opinions. Several of students were able to criticize a text by using their logical opinion and could answer   several questions to demand the analytical, evaluating and creating skills. Therefore, models English of based HOTS learning could be applied of teachers by monitoring the students' condition and characters as similar as this research. Hence, the HOTS learning model were proven in enhancing students' reading skill especially in English subject.

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