Higher Order Thinking Skill Questions in Reading Comprehension Test Constructed by English Teacher of Senior High School in Padang Pariaman Regency

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ABSTRACT

The purpose of this study was whether the reading comprehension questions on test made by English teacher reflect criteria of Bloom's Taxonomy or not, in what level dominant found it. The English teachers of senior high school in Padang Pariaman Regency were asked to construct nine questions in the form of essay related to three text; descriptive, recount, narrative which are provided by the researcher. Then, the researcher analyzed the questions in order to get the percentage of HOTS questions created by English teachers. The result of this study indicated that English teachers tend to write LOTS questions rather than HOTS questions. For HOTS questions, in the level of evaluating question, it was mostly created by English teachers in Padang Pariaman. Related to problems faced by English teachers in creating HOTS questions, most of teachers have difficulty in constructing HOTS questions for students who have lower level of critical thinking. Then, they also have difficulty in creating HOTS questions which are effective and can deliver the intended questions. Since designing a good test item is not easy, well training and knowledge about constructing test items are necessary for English teachers.

Keywords: *Reading Comprehension Questions, Constructing HOTS Questions, Blooms' Taxonomies*

1. INTRODUCTION

Questioning is a tool to build communication of both teacher and students. In classroom situation, asking students with some questions will enhance their participation while studying. Dunkin [1] states that teachers' questions constitute one-sixth to one-tenth of all classroom interaction time. It can be the major reason why teachers need to provide their students with some questions.

On the other hand, Arslan [2] argues that questioning is the most effective way in encouraging the students to think. Teachers use questions to engage the students and sustain an active style of learning. This opinion clearly states that questioning is the most important tool for the teacher to manage the class, engage students with content, encourage participation and increase students' understanding. To achieve the all goals of learning, the teacher should be able to create a good question for the students. By giving such questions, the teachers can check students understanding towards the material. Questions can be given in written or oral form. For instance, teachers may test their students by giving them a passage which is followed by several questions. In order to know how their comprehension and their critical thinking about the passage are, so that the questions of the passage should be able to dig students' critical thinking [3].

As one of the four language skills; (Listening, Speaking, Reading, and Writing), reading has received more attention than any other aspect of education, the ability to read well is the basis for success of education [4]. Regarding the objective of English at Senior High School, the National Curriculum Board of Education [5]. targets the students at the informational level. At this level, regarding reading skill, there are many kinds of various types of English written texts, i.e. procedure, descriptive, recount, narrative, reports, news item, analytic exposition, hortatory exposition, spoof, explanation, discussion, and review to access knowledge.

Therefore, to achieve this level, the teacher must provide the students to build upon previous experiences and make connections, integrate new ideas, and generalize from what is read [6]. The teacher must help students to see questions not as attempts to expose their ignorance, but as aids to successful exploration of the text [7]. Teacher should be aware of question level and how they can be used for different purposes. To make the interaction between the teacher and student go well, it may depend on how teacher questions are contributed.

Thus, the teacher should understand what level of question which are possible to support students in learning a target language. The students have to use their own perception, reaction, and feeling, value and life experiences as the key to answer the questions given. The way of

knowing level of question are based on the reason that certain sorts of questions will likely trigger the students to respond in more complex answers. As an example, when a teacher uses more comprehension questions in classroom interaction, and the answer from student will be more in number of words used, more complex sentences uttered. In other words, by using comprehension questions, teacher shares more chances for students to proves a personal understanding of the material by being able to rephrase it, give a reason in his or her own words, and use it in making comparison, and the students will be able to give response.

One of solutions to get students' knowledge deeply is by using higher order thinking skills questions in the passage. Higher order thinking skills question will stimulate students' higher level of thinking in constructing responses [8]. It is in line with interview test. As interviewer, you may give the interviewee kinds of higher order thinking skills questions to promote comprehension and build their critical thinking skills.

Theory about lower and higher order thinking skills question is debuted by Bloom's taxonomy [9] which is revised by Anderson and Krathwohl [10]. The theory can be used by teachers as guideline in creating questions for assessment. Anderson and Krathwohl [10] identify the structures of cognitive taxonomies into six points; remember, understand, apply, analyze, evaluate, and create. Questions that bring out ideas in remembering, understanding, and applying domain are mostly considered as lower levels of questions, meanwhile questions in analyzing, evaluating, and creating are considered as higher order thinking skills question [8].

Since higher order thinking skills questions bring out students' critical thinking, teachers are encouraged to ask questions in these domains. The problems concern on teacher's ability in designing reading comprehension question. The questions made by teacher are usually dominated literal level. It is in line with Vacca who stated that typically questions presented will be literal indeed the higher level questioning techniques also needed. So then, students independently answer some questions relating to reading passage, they are more likely to copy answer from the text if it uses explicitly. However, if it is stated implicitly, they often get wrong answer dealing with English reading test. Whereas, to trigger and check students of senior high school must be trained by giving reading comprehension questions does not only provide literal but higher level to measure student's critical thinking.

Based on the explanation above, it can be seen that this research need to be conducted since knowing higher order thinking skill questions in reading comprehension test constructed by English Teacher in Padang Pariaman Regency.

1.1 Bloom's Taxonomy

Learning taxonomies or classifications are commonly applied as a way of describing different types of learning behaviors and characteristics that we wish our students to develop [11]. They are often used to classify different stages of learning development and provide a useful tool in distinguishing the appropriateness of particular learning outcomes for particular module levels within our programs. The most familiar and earliest of these is Bloom's Taxonomy [9] adapted more recently by Anderson et al [11].

Bloom states that there are three domains in mastering knowledge; cognitive domain, affective domain, and psychomotor domain. Cognitive domain is to measure students' knowledge [11]. Affective domain is to degree student's behavior. Psychomotor domain is to know about students' skill or performance. These learning domains can be as a guide for teacher to assess learning process.

Based on revised Bloom's cognitive domain [9] the researcher needs to describe about six processes of cognitive with a view of how teachers use these cognitive process in classify level of questions and creating questions as their pedagogical competence. The levels of questions are divided into two parts; lower level, higher level. Lower levels of question consist of remembering, understanding, and applying. Meanwhile, higher order thinking skills question are questions in the level of analyzing, evaluating, and creating. Thus, teacher should have ability in creating questions to know students cognitive level.

Remembering which is the act of recognizing and recalling information is considered the lowest order of cognitive processing and yet recall-type questions are the most frequently posed by educators [8]. Remembering question is divided into two types; recognizing and recalling information. Recognizing information is locating knowledge in students' long term memory that is consistent [11]. For instance, teachers may create questions or activity that makes student recognize dates of important event in Indonesia history. Then, remembering has recalling information. It is retrieving relevant knowledge from long term memory such as English teachers may create questions that make students recall important dates of Indonesia history.

Comprehension level shows that the students understand what they have read [3]. It occurs when they retell, infer, interpret, explain, predict, and outline knowledge. Questions aimed at eliciting a student's understanding of the material are those that ask the learner to interpreting, exemplifying, classifying, summarizing, inferring, comparing, explaining [10]. In this level, teachers may ask students the conclusion of video-tape that they have watched, or teachers ask students to compare historical event to contemporary situation.

Application questions require the learner to execute a procedure or process, mental or physical, to an unfamiliar situation or circumstance [8]. Application is the stage of

making use of knowledge in a new situation. It occurs when the students demonstrate, implement, carry out, or describe a similar situation. For example, teachers may create question which ask students to use appropriate respond in specific situation.

Analysis is the process of breaking information into small parts identifying motives or causes [9] It happens when the students organize information and determine relationship between their previous knowledge and newly gained knowledge. Analysis questions may ask the learner to organize elements within a structure, distinguish relevant from irrelevant information, or deconstruct underlying values and biases [3]. In analyzing questions, it is also differentiating relevant from irrelevant parts or important from unimportant parts of presented materials [10]. For instance, teachers ask students to determine the point of view of the author of an essay in terms of their political perspective.

Evaluation question requires the learner to critique a work or product, determine the appropriateness of a process or product for a given problem, or examine the inconsistencies in a theory. Evaluation is to develop reason to support decision [3]. It occurs when the students judge, choose, recommend, justify, critique about the text such as teacher asks students to judge what is the best way to solve specific problem.

Creation is the highest level. Creating is considered as the most difficult task in terms of cognitive processing. Questions that address this cognitive domain may require learners to generate alternative hypotheses based on observed phenomena, devise a new procedure to accomplish a task, or conceptualize a new product. It occurs when the students design, construct, plan, and produce the new ideas [3]. In level of creating, teacher may ask students to plan research paper on a given linguistic topic or teacher may ask students to generate hypotheses to account for an observed phenomenon.

2. METHOD

This research described the current condition of how higher order thinking skills questions constructed by English teachers. Descriptive research is considered as the appropriate design to be applied. It is supported by Anderson [12] and Zaim [13] who states that any research that attempts to describe data might be referred to a descriptive research. Gay and Airasian [15] state descriptive research is conducted to obtain information about the preferences, attitudes, and practices of some group of people in order to answer a range of questions about the current status of the subject of the study.

This is an emergent research design whereby data collection and data analysis have been done simultaneously. This type of research helped the researcher to discover current phenomena that allow for important understandings. The population of this research was English teachers of senior high school in Padang Pariaman Regency. Due to the quite large of population, the researcher used sample to conduct this study. The sample is small part of the population. A good sample is representative of the population from which it is selected. Moreover, Gay [15] states the minimum sample size is 10 %.

The researcher is the key instrument because she interprets data that had been obtained from the teachers test and interviews. Test of constructing question is a test that provide three texts; descriptive, narrative, recount, and ask test-takers (English teachers) to construct the questions related to the texts. Teachers were asked to write question with three levels of higher order thinking questions. The researcher counted the percentage of each level by using the indicator of cognitive process dimension. Then, interview was used by the researcher to know problems faced by English teachers in creating higher order thinking skills question. Gay, Mills and Airasan [10] state that an interview is a purposeful interaction in which one person obtains information from another. Moreover, the researcher makes decision based on the data collected. Besides the researcher, there are two other instruments such as teacher competence test and interview guideline that were used to collect data.

3. RESULT AND DISCUSSION

The results were collected through test of constructing test items and interview. Results and discussion in this research explained about higher level of questions were constructed by English teachers and interview result on Senior High School English teachers in Padang Pariaman Regency.

3.1 Levels of Higher Order Thinking Skills Questions Created by English Teachers

There were 171 questions that are constructed by English teachers in Padang Pariaman. From those questions, it shows that higher order thinking skills question are only 26.90 % and 73.1% for lower order thinking skills questions. To make it clear, it is drawn in the graphic below:
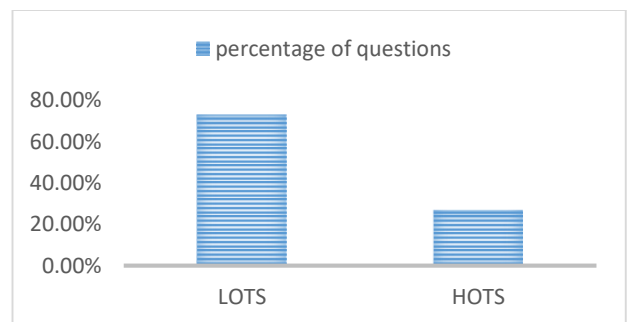

Figure 1. The profile of Levels of Questions Created by English Teachers

Based on the table above, it can be seen that Evaluating questions take a big portion in test items that are made by English teachers in Padang Pariaman. The explanation of three levels of questions will be stated below.

a. Analyzing Questions

Since there are three levels of HOTS question, it was described separately. The first is analyzing questions. Analyzing question may ask the learner to organize elements within a structure, distinguish relevant from irrelevant information, or deconstruct underlying values and biases [3]. It happens when the students organize information and determine relationship between their previous knowledge and newly gained knowledge. Some of analyzing questions were found in the test items that were constructed by English teachers in Padang Pariaman Regency. One of analyzing question is explained as the following.

Teacher 2, Descriptive Text:
What possible factors may cause the decrease of singapore's weath? Because once Indonesia was also known as 'tiger' in Asia and now it is not.

Based on the example above, it can be said as analyzing questions since the question stimulate students' cognitive process in analyzing possible factors of Singapore's decrease. Related to the keyword of analyzing question, the researcher and evaluator indicate the keyword of the question is contrast. The questions above give adding information about the position of Indonesia that was as 'tiger Asia' and that adding information was conducted to the main question which asked the possible factor of the decrease of Singapore since Singapore is currently known as 'tiger Asia'.

b. Evaluating Questions

The second is evaluating questions. In theory of Bloom's Taxonomy theory, evaluating level was a replacement of synthesis level. Evaluation question requires the learner to critique a work or product, determine the appropriateness of a process or product for a given problem, or examine the inconsistencies in a theory. Evaluation is to develop reason to support decision [3]. It occurs when the students judge, choose, recommend, justify, critique about the text such as teacher asks students to judge what is the best way to solve specific problem. Some of evaluating questions were found in the test items that were constructed by English teachers in Padang Pariaman Regency. One of evaluating questions is explained as follow.

Teacher 3. Narrative Text.
What is your opinion of Mouse Deers' character?

The question above can be divided as evaluating question since the question asks students' opinion about someone. It means that students are asked to judge someone personality based on the evidence that appear in the narrative text. Related to the keyword of evaluating question, the researcher and evaluator indicate the keyword of the question is judging. Thus, this question is in the level of evaluating questions.

c. Creating Questions

The third is creating question. Creating question is considered as the most difficult task in terms of cognitive processing. Questions that address this cognitive domain may require learners to generate alternative hypotheses based on observed phenomena, devise a new procedure to accomplish a task, or conceptualize a new product. It occurs when the students design, construct, plan, and produce the new ideas [3]. In level of creating, teacher may ask students to plan research paper on a given linguistic topic or teacher may ask students to generate hypotheses to account for an observed phenomenon. . Some of creating questions were found in the test items that were constructed by English teachers in Padang Pariaman Regency. One of creating question is explained as follow.

Teacher 4. Narrative Text.
What will the crocodiles do next after the mouse laugh as he ran to the forest?

The question above is divided as creating questions since the question stimulate students to think and create the ending of the story. Related to the keyword of creating question, the researcher and evaluator put 'plan' as indicator of that question. Thus, the question above classified as creating question.
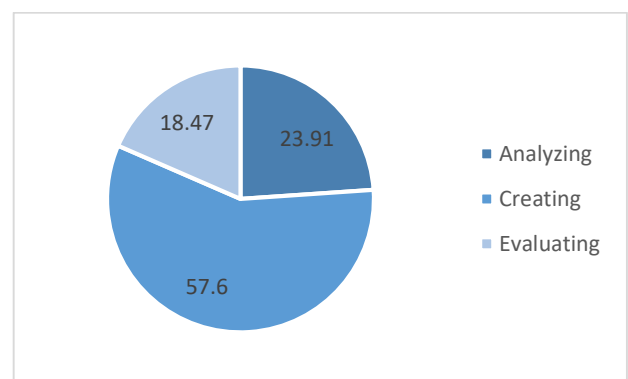
For details, it can be seen in the table below:

Figure 2. The Result of HOTS Questions Constructed by English Teacher

3.2 *Problems Faced by English Teachers in Constructing Higher Order Thinking Skills Questions*

To identify problems faced by English teachers in creating higher order thinking skills questions, the researcher used interview data. In interview session, the researcher asked several question based on indicator of the interview guideline. The result of interview is explained below.

The first problem faced by English teachers in constructing HOTS questions is English teachers in Padang Pariaman have lack competency in creating questions which based on students' level proficiency. In one side, HOTS question is a question that asks students to think critically. To get the critical thinking, students should pass the cognitive process of remembering and understanding the text. But, students' situation is some of them should try hard to understand the concept of the material which it is in the lower level of critical thinking. In this case, students should give extra efforts to understand story or information in the text. With this current situation, students' proficiency is in the level of lower order thinking skill; teachers are difficult to give HOTS question to students.

The second problem faced by English teachers in constructing HOTS questions is there are some of English teacher who do not know HOTS questions itself. This difficulty are caused by they got less training about implementing concept of HOTS in creating questions. The researcher believes that this difficulty can be overcome after they got more training about implementing concept of HOTS in teaching learning process.

The next problem faced by English teachers is they like to use negative statement for the questions. They thought that a question with negative language could make students read carefully about the text. But their belief do not supported with theory of editorial guideline in constructing test items. According to Haladyna [16], negative terms in test items have negative effect on student answer. However, if teacher must use 'not' or some other negation, teacher need to make sure that it appears in capital letters, and even boldface. That way, a student is unlikely to be confused.

The fourth problem faced by English teachers is teacher do not like to devise the questions which could be effected to the ambiguity of questions. Based on the result of English teacher test in constructed questions, it was found that English teachers in Padang Pariaman Regency have good capability in creating test items with less ambiguity. However, in the result of the research, it was still founded an ambiguous question.

The fifth problem is teachers sometimes do not realize that the questions are too complex and unwell structured. It is related to indicator of relevancy of test items. Relevancy of test items here means the linguistic complexity of items should be appropriate for the students being tested. Based on the result of English teacher competency test in constructing questions, it was found that English teachers in Padang Pariaman Regency have not reached good capability in creating test items with relevant information of test items.

The last problem faced by English teachers is they have anxiety in creating independent questions. Independent question means one item does not provide the answer for another item. Although in this research the researcher did not find dependent questions, in interview section, teacher stated that they have seen dependent question in some exercise or examination.

4. CONCLUSION

From higher orders thinking skills questions created by English teachers, the researcher and evaluator classified HOTS question into three levels; analyzing, evaluating, and creating. Based on the findings, it reveals that most of the English teachers created evaluating questions rather than analyzing and creating questions. It probably means that the English teachers are more familiar with evaluating questions rather than two other levels of questions. For addition, in evaluating questions, moral value of the story is as most frequently question asked by teachers. The percentage of higher order thinking skills questions is in line with the research done by Febrina,Usman, and Muslem (2019). The research shows that from three levels of higher order thinking skills questions, evaluating levels got the first place as most appearance questions. Analyzing level and creating level ranked in the second position.

Then, the problem faced by the English teachers in creating HOTS questions. Based on finding in interview, most of teacher know that some indicator of criterion-referenced test item. Unexpectedly, in interview session, one of English teachers said that he did not really know the concept of HOTS question. He did not know how HOTS question should be. It happened since they had got one workshop since the concept of HOTS question is introduced by government. Whereas, the English teacher could do self-training by reading some article or following some seminar about HOTS question. By doing self-training, it means that the English teachers have an effort to enlarge their knowledge.

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