

Descriptive Analyses on English Test Items based on the Application of Revised Bloom's Taxonomy

Immanuel Kamlasi¹Anselmus Sahan²

1, 2 Universitas Timor,

Jl. Km. 9, Kelurahan Sasi, Kefamenanu, Timor, NTT, Indonesia

¹ikamlasi@yahoo.com, ²anselsahan@gamil.com

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Abstract

This investigation analyzed the English test items based on the application of revised Bloom's taxonomy. This study was categorized as descriptive qualitative research. The instrument of this study was English test sheet which was used in final semester test in senior high school. In analyzing the data; the researchers applied four steps: codifying; classifying; analyzing and discussing. Anderson, et.al. (2001) revised the Bloom's Taxonomy that thinking is an active process so verbs were used rather than nouns. The findings showed that remembering taxonomy made 22 items or 44%. Understanding taxonomy presented 2 items or 4%. Applying taxonomy made 21 items or 42%. Analyzing taxonomy made 5 items or 10%. While there was no item found in both evaluating and creating taxonomy. Therefore; creating taxonomy was not used to ask the students in the English test. Regarding to the findings of this investigation; teachers need to distribute the revised Bloom's taxonomy in constructing test items. Furthermore; teachers need to use WH questions in the test items.

Keywords: analyses; items, Bloom's taxonomy

Introduction

A test is used as the way to know whether the students have achieved the learning objectives or not. Regarding to the test, that it has powerful effect in the language teaching and learning process. Test is important for teachers in order to measure whether the objectives of language teaching and learning have been achieved or not. Furthermore; (Hughes, 2003:5) defines testing as the way in which information about people's language ability can be gathered. The information about people's ability is very useful and necessary; therefore it needs a test to measure it.

The quality of the test items will affect the students' achievement in the results of the test. Good test items demand good strategy which teacher must decide the goal for the test and write good test items to achieve that learning objectives. The teachers must consider the criteria of constructing test items; so the learning objectives are gained. In other hand; test is powerful to determine the learning achievement. Developing good test items is hard work for every teacher in order



to produce the quality of test items. Regarding to the importance of test items; it is important to construct good test items.

Generally; test is a device to measure the students' ability in classroom. Brown (2004:3) defines test as a method of measuring a person's ability, knowledge or performance in a given domain. Meanwhile, Furthermore; Airasian (2008:9) defines test is a formal, systematic procedure for gathering information. A test is used by teacher to measure the students' learning ability. Through the test; teachers can locate the students' problems. Every student in the class has different problem in learning a lesson. For example; a student who has good grammar but has bad speaking performance. The result of the test is really helpful for teachers to identify the students' strengths and weakness. Throughout the test; the teacher could find other methods of teaching and learning process. The results of the test show help the teacher to change the methods. Developing good quality of test items is necessary for very tester or teacher to know. Good quality of test items must requires amount of requirements of language testing. As it is stated in Airasian and Russell, (2008:156) that item should cover important objectives, bested clearly, and simply, contain misleading statements, confusing formatting, or excess verbiage.

Tangsakul (2017) analyzed the reading comprehension questions by using revised Bloom's Taxonomy in Team Up in English 1-3 and Grade 9 English O-NET Tests. The study tried to find out the levels of reading comprehension questions in Grade 9 English O-NET Tests and Team Up in English 1-3 textbooks. The findings showed that the levels of reading comprehension questions were in Remembering and Understanding levels. Even though, the highest level which was creating in Team Up in English 3 but in the low percentage. Thus; this present study analyzes the English test items based on the application of revised Bloom's taxonomy.

Questions are important to stimulate the students in classroom. Tofade, et.al. (2013) explained that questions are often used to stimulate the recall of prior knowledge, promote comprehension, and build critical-thinking skills. They stated that teachers ask questions to help students uncover the materials have been learnt, to comprehensively explore the subject matter, and to generate discussion and peer to peer interaction. For this case; the major categories of questions in Bloom's taxonomy (Bloom, 1956) classified into knowledge, comprehension, application, analysis, synthesis and evaluation which discussed in the following section.

During the 1990s, a former student of Bloom, Lorin Anderson, revised the Bloom's taxonomy which met for the purpose of updating the taxonomy. In addition; Anderson, et.al. (2001) rephrased the Bloom's Taxonomy that reflects different forms of thinking. They noted that thinking is an active process therefore verbs were used rather than nouns. The revisions are noted as knowledge was changed to remembering, comprehension was changed to remembering, application was changed to applying, analyses was changed to analyzing, evaluation was changed to evaluating and synthesis was changed to creating. Soozandehfar & Adeli (2016) explained that the taxonomy is from simplest to most complexes; remember, understand, apply, analyze, evaluate, and create. Soozandehfar & Adeli (2016) summarized the revised Bloom's Taxonomy. They



noted that remembering consists of recalling relevant information from long-term memory. Remembering is used to produce definitions, facts, or lists, or to recite previous information. Understanding means the ability to make meaning from learning material such as reading. Understanding refers to constructing meaning from different types of functions be they written or graphic messages or activities like interpreting, exemplifying, classifying, summarizing, inferring, comparing, or explaining. The next process is applying taxonomy; it refers to using a learnt procedure in a familiar or new situation. Applying relates with situations where the material is used through products such as models, presentations or demonstration. The next process is analyzing which consists of breaking down the knowledge into its parts and thinking about how the parts relate to each other. Evaluating is at the top in original taxonomy. Evaluating refers making judgments or decision based on criteria by checking and critiquing. Creating is a process which was not included in the earlier taxonomy. In revised Bloom's taxonomy; it is the highest component which involves putting things together to make something new.

This research describes the types of English test items for senior high school which are based on revised Bloom's Taxonomy. Lorin Anderson (2001) former student of Bloom revised the cognitive level in the taxonomy. The taxonomy review different forms of thinking. Anderson (2001) noted that thinking is an active process so verbs were used rather than nouns. The basic reason is to make the students are active process. The revision is from nouns to verbs; therefore it can make the students are active in thinking. Considering the importance of constructing good test items; thus teachers need to make quality of tests which are based on the revised Bloom's taxonomy; remembering; understanding; analyzing; applying; evaluating and creating. The application of revised Bloom's taxonomy in English test items becomes important for every English teacher. This research was conducted to classify test items which are based on revised Bloom's taxonomy.

Method

The issues which were investigated in this research were analyzing and describing the English test items for senior high school; therefore this research was categorized as descriptive qualitative research. The research is done by collecting, classifying, analyzing the data and making conclusion and report. The source of data in this research was documentary data. Prior (2003) in Cohen 2007: 201) stated that documents are useful in rendering more visible the phenomena under study. The instrument is important to be is used in the research. The instrument of this research was English Test Sheet. The English test which was used by the English teacher for final semester test in senior high schools. In analyzing the data; the researchers applied the following steps:

a) Codifying

In this part the researchers coded each test items which were used in the English test sheet. The researchers gave code on each question which is based on the revised Blooms' Taxonomy of education.

b) Classifying



In this section, the researchers classified the data into categories of test item. The focus on the level of difficulty based on the revised Bloom's taxonomy namely lower and higher level.

c) Analyzing

The researchers analyzed the data based on categories of revised Bloom's taxonomy; remembering, understanding, applying, analyzing, evaluating and creating.

d) Discussing

In this part, the researchers discussed the results as the findings of the research. The discussions refer to problems of the research contains two part namely describing and mapping the item test based on revised Bloom's taxonomy.

Findings and discussion

There was an English test sheet of class XI Science program of senior high school which was used as the instrument. The test was used for final semester test in the school year 2017/2018. There were 50 test items of multiple choice types. During the analyses process; the researchers spent few months to analyze the data then they came to the data presentations and discussion.

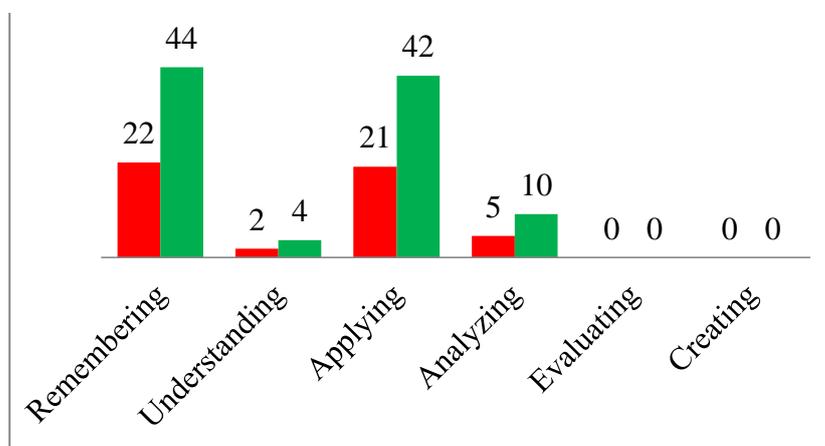


Chart 1: The Percentages of Revised Blooms' Taxonomy

The chart presents the figures on each revised Bloom's Taxonomy in the English test sheet for senior high school. The data showed that each of taxonomy contains different scores. The highest percentage was remembering level with the score was 44%. The next was applying level with the score was 42%. The next was analyzing level with the score was 10%; then followed by understanding level with the score was 4%. Both evaluating and creating levels are the lowest score which was is 0%. Thus; this test indicates that remembering and applying levels were dominated in the English test for senior high school.

Regarding to the data presented in the chart above; the following section describes the items on each revised Bloom's taxonomy which covers remembering; understanding; applying; analyzing; evaluating and creating levels.



1) Remembering

Remembering taxonomy tells how the students recall the knowledge in long term memory. Anderson, et.al. (2001: 66) noted that remembering involves retrieving relevant knowledge from long term memory. Furthermore; Anderson, et.al. (2001) explained that remembering knowledge is essential for meaningful learning and problem solving which is used in more complex task. The questions are constructed to ask the students to remember knowledge for meaningful learning. This taxonomy is simply remembering or recalling previous information. This kind of test is found in the English test sheet for senior high school with the total numbers is 22 items. The data showed that most of the items are in statement, imperative and completion forms. In this writing; the researchers just show some examples of the test. Item no. 1. *The above instruction about.....* This kind of test demands the students to recall the topic given. Item no. 2. *The verbs used in the recipe given above are....* This item wants the students to select the words given in the option. Item no. 3. *What shouldn't you do when making a cheese toast?* This item used question form of WHAT to ask the students to remember the steps in making cheese toast.

2) Understanding

Understanding taxonomy is used to demonstrate understanding of information by explaining concepts or ideas of facts by organizing, comparing, translating, interpreting, describing and stating main ideas. Anderson, et.al. (2001: 70) explained that understanding is to construct meaning form. This kind of questions are found in the English sheet test with the total numbers are 2 items. The researchers show these two items of understanding taxonomy. Item no. 22. *Sue calls "the last leaf" as Berhaman's masterpiece because.* This question mainly asks the students for describing the author's character; therefore students need to understand carefully of the text. Item no. 23. *The following statements are not Mr. Behrman's personality based on the story, except....* The stem of the question demand the students to find out statement. Regarding to this item, the students must have capability to make statement after reading the story.

3) Applying

After the students remember and understand the content, they must learn to apply the knowledge. Applying is the next which requires the students to be able to take the ideas and concepts and apply them in a new way. Anderson, et.al. (2001: 77) explained that applying refers using procedures to perform exercises or solve the problem. This taxonomy is enabling the students to choose, demonstrate, dramatize, employ, illustrate, etc. These kinds of questions are found in the English sheet test with the total numbers are 21 items. The data showed that most of the items are in statement, imperative and completion forms while few are in question words. The researchers show some examples of the items in applying question. Item no. 5-10 *Complete the following sentences using suitable words!* These items demand the students to select appropriate words that best complete the missing words. Item no. 5. *Many young children have ...friends.* Item no. 6. *The world has seen ... change since the industrial.* Item no. 10. *It seems the economy has started ...from the black hole depression.*



4) Analyzing

Analyzing taxonomy means to separate the material or concepts into component parts so that its organizational structure may be understood. Anderson, et.al. (2001: 79) noted that the analyzing taxonomy involves breaking material into its constituents parts and determining how the parts are related to one another and to overall structure. This taxonomy want the students to be able to analyze, categorize, classify, compare, contrast, discover, dissect, divide, examine, inspect, simplify, survey, test for, distinguish, list, distinction. The data showed that there are 5 items found in the English test sheet. The researcher found them in item 40 to 44. Complete the following sentences using the suitable words!.Item 40.*Project based learning ... on active learning.* Item 41.*Marythe stage throughout the play. She has strong personality.* The students need to analyze the verbs in the option to complete the missing words. The options contain the verbs that need analysis.

5) Evaluating

Evaluation means to judge. Anderson, et.al. (2001: 83) explained that evaluating taxonomy refers to making judgments based on criteria and standards through checking and critiquing. The aim is to make decision based on the results. This kind of test is not found in the English test sheet. Therefore; evaluating taxonomy is not asked in English test.

6) Creating

Creating taxonomy demands the students to produce something. Anderson, et.al. (2001: 84) explained that creating taxonomy requires the students to make a new product by mentally reorganizing elements into a new pattern or structure through generating, planning, or producing. This includes generating new ideas, products, or ways of viewing things. This kind of test is not found in the English test sheet. Therefore; creating taxonomy is not used in the English test.

Conclusion

This section draws the conclusion of the research. The findings showed that remembering taxonomy tells how the students recall the knowledge in long term memory. The questions are constructed to ask the students to remember knowledge for meaningful learning. This kind of test was found in the English test sheet for senior high school with the total numbers was 22 items (44%). Understanding taxonomy is used to demonstrate understanding of information by explaining concepts or ideas of facts by organizing, comparing, translating, interpreting, describing and stating main ideas. This kind of questions were found in the English sheet test with the total numbers are 2 items (4%). Applying requires the students to be able to take the ideas and apply them in a new model. These kinds of questions were found in the English sheet test with the total number was 21 items (42%). Analyzing taxonomy means to separate the concepts into some parts so that its structure is understandable. This taxonomy demands the students to be able to analyze, categorize, classify, compare, contrast, discover, dissect, divide, examine, inspect, simplify, survey, test for, distinguish, list. The data showed that there were 5 items (10%) found in the English test sheet.



Evaluation means to judge. The aim of evaluation is to make decision based on the results. This kind of test was not found in the English test sheet or it presented 0%. Therefore; evaluating taxonomy is not asked in English test. Creating taxonomy demands the students to produce something. This includes generating new ideas, products, or ways of viewing things. This kind of test is not found in the English test sheet or it presented 0%. Therefore; creating taxonomy is used to ask the students in the English test.

Regarding to findings of this investigation; teachers need to distribute the revised Bloom's taxonomy in constructing test items. Furthermore; teachers need to use WH questions in the test items. This strategy will help the students to think actively.

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