

Indonesian EFL Teachers Competence in Constructing Lots and Hots-based Test: A Case Study in an Indonesian Secondary School

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Abstract: As a part of pedagogical competence, the teachers' ability in constructing formative test needs to be investigated. This research is to analyze and classify EFL teachers' formative test from two Madrasah Tsanawiyah Negeri (MTsN) in Bandung, Indonesia based on Lower Order Thinking Skills (LOTS) and Higher Order Thinking Skills (HOTS). This research employed qualitative study through the descriptive analysis of the formative test provided by the teachers. Two MTsN teachers were selected purposively based on their experiences in teaching. Moreover, document analysis, questionnaire and interview were used as the instruments to gain the data. After all of formative tests were analyzed, most items fall into category of revealing the students' LOTS: Remembering (C1), Understanding (C2), and Applying (C3). Meanwhile, the teachers also developed formative test that belong to HOTS level: Analyzing (C4), evaluating (C5) and creating (C6); however, the number is very limited. Data from questionnaire and interview show that the teachers had actually basic knowledge about LOTS and HOTS, but they lacked practices of using them in constructing formative tests. This study is significant in informing the policy makers regarding the importance of developing teachers' skill in constructing formative test which is based on LOTS and HOTS.

1 INTRODUCTION

One of teacher duties is gradually evaluating their students' skill of what they have taught, for instance, giving students some tests. That is one of many ways to examine their ability. Teachers' ability in constructing questions for an examination is needed. Thus, it is important to know the real teachers' ability of in constructing questions for evaluating students' skill.

Teachers' understanding of how to construct good test items is important because this related with one of teacher's competence, that is pedagogical competence. According to the National Standard of Education in chapter 28 verse 3: "Teacher pedagogical competence is an ability in the management of learning activity at least the following: a) understanding of the educational foundation; b) understanding of learners; c) developing curriculum or syllabus; d) designing

learning; e) implementation of educational learning and dialogue; f) the use of technologies in learning; g) evaluation of learning outcomes, and h) development of a variety of learners to actualize its potential."

Based on the explanation above, one of the teacher's abilities in pedagogical competence is an evaluation of learning outcome. To evaluate student's competence, a teacher can give them some tests.

Therefore, every teacher needs to understand Bloom's Taxonomy for the activities in the classroom and the guidance to evaluate the students' ability in the form of test. In addition, testing is one of the powerful tools to measure students' abilities as well as to enhance their attitudes towards learning. Brown and wickrama support that statement (as cited in Tran, 2012) said that "tests as a way of measuring a person's skill, understanding, or performance in a specific domain." In short, testing is one of ways or instruments to know how far the

students have understood the teaching materials that have been given.

According to Davis (2002), there are nine kinds of test: Multiple choice tests, True-false tests, Matching tests, Essay tests, Short answer tests, Problem sets, Oral exams, Performance tests, "Create-a-game" exams. However, this research is more focus on the multiple choice and essay test; those are packed into daily-test.

Moreover, to construct good questions of the test, the teachers have to consider the level of thinking that exist in Revised Bloom's Taxonomy. It can help the teachers decide the best level of the questions of a test. Moreover, Revised Bloom's Taxonomy is believed to give theories for teachers to do their activity in the classroom including administrating a test (Bloom, Krathwohl, Engelhart, Furst, & Hill, 1956).

Furthermore, there are six thinking levels in revised Bloom's Taxonomy (Bloom et al., 1956); Remembering C1, Understanding C2, Applying C3, Analyzing C4, Creating C5 and Evaluating C6. Moreover, they are divided into two categories, LOTS and HOTS. The first three include to LOTS while the rest ones include to HOTS, Anderson (2001). Therefore, this study is aimed to investigate the Indonesian teachers' competence in constructing HOTS questions on tests.

Several researchers have conducted research on HOTS and LOTS. First, the research was conducted by Mansory (2013) which explains about the analysis of test items in grade seven of math about Bloom's Taxonomy. Second, the research was conducted by Gezer, Sunkur, & Sahin (2014) which explains about the evaluation of exam questions of social studies at the elementary schools.

Different from the previous researchers, this research takes a different case. Knowing the problem, this research concerns in explaining about analyzing of English test items (daily test) in grade seven of MTsN in Bandung. Then, this is interesting to know which categories of cognition level that appropriate with each question in test items. Based on the explanation, the research is taken titled "Indonesian EFL Teachers Competence in Constructing Lots and Hots-Based Test".

2 PEDAGOGIC COMPETENCE, REVISED BLOOM'S TAXONOMY AND LOTS AND HOTS

2.1 Pedagogical Competence

Pedagogical competency is one of the competencies that should be had by a teacher since it deals with the learning activity. The teachers should know it theoretically and practically. According to Rahman (2014), Teachers' pedagogical competency is the ability to manage the learning activity.

Furthermore, according to the National Standard of Education in Chapter 28 verse 3, pedagogical competence is the capability to be developed by the teachers including students' development, theories and principles of learning, curriculum development, educational learning activities, and development of potential learners, communication with students, and assessment and evaluation.

Factually, there are some components of pedagogical competence should teachers mastered. According to Asmani (in Hakim, 2015) those are:

1. Adjusting the students' characteristics, from the physical aspect, the spiritual moral, social-cultural, emotional and intellectual.
2. Guiding the learning theories and principles of learning that educates.
3. Developing curriculum that related to the subject matter.
4. Conducting the educational learning system.
5. Developing information and communication technology for the sake of learning.
6. Facilitating the development of potential learners to actualize their potential.
7. Communicating effectively, empathetic, and manner with the students.
8. Guiding the assessment and evaluation processes and learning outcomes.
9. Developing the assessment and evaluation for the sake of learning.
10. Taking action to improve the quality of reflective learning.

Thus, teachers should grasp all of them in order to make the teaching and learning process succeed by considering the all components.

Based on the explanation above, this research is focused on teachers' evaluation and assessment because it explains the quality of testing that teachers provide to evaluate their students.

2.2 Revised Bloom's Taxonomy (RBT)

In 1956, a group of educational psychologists, headed by Benjamin Bloom, developed a classification of different learning objectives that educators set for students. There are six levels in the original taxonomy, namely, knowledge, comprehension, application, analysis, synthesis and evaluation, moving from the bottom to the top, which is known as the old version of Bloom's Taxonomy.

In 1990s, another group of cognitive psychologists, led by a former student of Bloom, Anderson and friends updated the taxonomy, reflecting relevance to the 21st century. The six levels in the revised taxonomy include, from the lowest to the highest. Those levels changed become remembering, understanding, applying, analyzing, evaluating and creating. Note that the top two levels are essentially exchanged and the nouns are changed to verbs as well. From six levels divided into two part, the three levels down are LOTS (Lower Order Thinking Skills) Categorize and the three levels up are HOTS (High Order Thinking Skills) categorize, (bloom, in Wang,2012).

2.3 Cognitive Domain Of Revised Bloom's Taxonomy

Cognitive domain is mental skill (knowledge). According to Bloom et al.,(1956), cognitive domain of Bloom's Taxonomy is one of the three domains that were introduced by Benjamin Bloom in 1950. The cognitive domain of Bloom's original taxonomy has six levels organized.

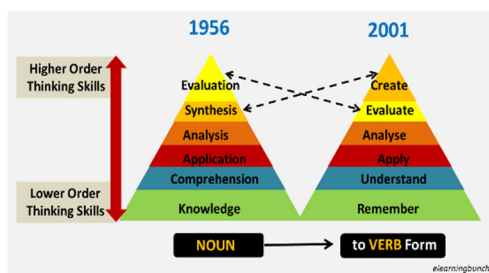


Figure 2.1.1. Changes in Bloom's Taxonomy of Educational Objectives

Nevertheless, the terms of thinking levels in original taxonomy created by Bloom were revised. Anderson and Krathwohl (2001) revised Bloom's Taxonomy, including exchanging the names of the levels from nouns to verbs. The lowest-order level

(Knowledge) became remembering, in which the student is asked to recall or remember the material. Comprehension became Understanding, in which the student would describe the concepts. Application became Applying, using the information in some new ways, such as choosing, writing, or interpreting. The highest-order level (Analysis) was revised became Analyzing, requiring the student to distinguish between different components or relationships, demonstrating the skill to compare and contrast. Synthesis became creating to reflect better nature of thinking described by each category, Synthesis (creating) and evaluation (evaluating) interchanged creative thinking more complex form of thinking than critical thinking (evaluating).

In cognitive domain, there are two classifications of thinking levels: Higher order thinking skills (HOTS) and Lower order thinking skills (LOTS). Based on Anderson (2001), levels at the top of the list are often considered as higher order thinking skills (HOTS) such as analyzing, evaluating and creating, while those near the end of the list are considered Lower order thinking skills (LOTS) such as remembering, understanding, applying.

These are six levels of cognitive domain which developed by Bloom (1956) and revised by Anderson (2001):

2.3.1 Remembering (C1)

This level is known as recalling of data. It refers to 'rote learning' or 'memorization.' This level assists as the lower level or the beginning level of the Revised Bloom Taxonomy. It is a level where students remember or memorize facts or recall the knowledge they learn before (bloom,1956).

The sample verbs of this level are memorize, define, recite, cite, count, draw, recall, list, name, record, repeat.

2.3.2 Understanding (C2)

Bloom (1956) describes this level as grasping the meaning of information. The ability to interpret, translating, extrapolating, classifying, explaining are the concepts of these levels. The sample verbs of this level are elate, interpret, classify, summarize, discuss, describe, explain, conclude, compare/contrast.

2.3.3 Applying (C3)

Application is defined by applying the concept to a certain scenario (Starr et al., 2008). The sample verbs of this level are employ, execute, implement, practice, calculate, show, demonstrate, translate, illustrate, and model.

2.3.4 Analyzing (C4)

This level requires students to breakdown information into simpler parts and analyze each of it. This may imply drawing a relationship, assumptions, distinguish or classifying the parts. The sample verbs of this level are distinguish, contrast, scrutinize, dissect, separate, discriminate, analyze, examine, and survey.

2.3.5 Evaluating (C5)

In the student should be able to integrate and combine ideas or concepts by rearranging components into a new whole (a product, plan, pattern or proposal) (Bloom, 1956). The sample verbs of this level are argue, decide, validate, appraise, evaluate, judge, measure, rank, criticize, rate, select, consider.

2.3.6 Creating (C6)

This is a final level where judging, criticism, supporting or depending own stand involves. Thompson et al. (2008) discuss this level in Bloom's Taxonomy for CS Assessment. The sample verbs of this level are generate, plan, produce, develop, construct, organize, propose, invent, formulate.

2.4 Definition of LOTS

According to Bloom et al., (1956) Lower order thinking is the foundation of skills required to move into higher order thinking. These are skills taught very well in school systems and include activities like reading and writing. In lower order thinking information does not need to be applied to any real life examples, it only needs to be recalled and slightly understood. Therefore, the thinking levels are categorized as Lower Order Thinking Skills.

2.5 Definition of HOTS

Higher order thinking skills (HOTS) is the next thinking level after the previous one. According to Yee et al., (2015) Higher order thinking skills (HOTS) is an imperative aspect in teaching and

learning especially at higher education institutions. Students with higher order thinking skills are able to find new ways to solve their daily problems and make appropriate decisions.

Moreover, According to Anderson (2001) Higher-order thinking is commonly typified as the three top levels (Analyzing, Evaluating, Creating) of Bloom's Revised Taxonomy. At the higher levels of thinking it is said that students are involved in designing, constructing, planning, producing, inventing, checking, hypothesizing, critiquing, experimenting, judging, comparing, organizing, deconstructing, interrogating and finding.

According to Bloom et al., (1956), HOTS represent critical, logical, reflective, metacognitive, and creative thinking that is activated by encountering unfamiliar problems and questions. Furthermore high order thinking is using the thinking widely to find new experiment. Higher order thinking demands someone to apply new information or knowledge that he has got and manipulates the information to reach possibility of answer in new situation. Brookhart (2010) stated that higher-order thinking conceived of as the top end of the Bloom's cognitive taxonomy. The teaching goal behind any of the cognitive taxonomies is equipping students to be able to do transfer.

To conclude, this level is more complex than LOTS. This level provides high thinking levels so that students are able to increase their thinking skills.

3 METHODOLOGY

This research was the qualitative research which takes specific case study. The purpose of this research is to find out the category of LOTS and HOTS of formative test items analyzed. Additionally, the scope of this research is daily tests.

The participants of this research are the English teachers of Mts Negeri 1 and MTs Negeri 2 Bandung at grade seven. It is considered from taking the representative of the existing English teachers in Indonesia, especially in Bandung. Therefore, one teacher of each school is selected to become the representative of English teachers for supporting the research.

This research uses a purposive sampling method to determine the required participants of the research. According to Creswell (2012), the subject selection in qualitative research is purposeful: participants are selected who can best-inform the research questions and enhance understanding of the

phenomenon under study. It means that the quality considers the selection of the schools and the participants. The data were taken from interview, questionnaire, and document.

4 RESULTS

In this point, the results of test analyzed is revealed. By considering the level of cognitive domain of Bloom's Taxonomy, the researcher analyzes the category of each number of questions between HOTS and LOTS. Moreover there are supportive data, questionnaire and interview strengthen the results. The following is the data that has been already analyzed.

Table 4.1: The Conclusion of Daily Test 1 of Teacher 1

Six Levels of Cognitive	Item Number	Total	Additional Information
C1 (Remembering)	Multiple Choice : 1,3,5,6,8,9, 10,11,13, 14,15,16,17, 18,19,20 Essay : 1,2,3,4	Mc: 16 Essay : 4	The choice of question number 4 is not complete
C2 (Understanding)	Multiple Choice : 2,12 Essay : 5	Mc : 2 Essay : 1	
C3 (Applying)	-	-	
C4 (Analyzing)	Multiple Choice : 7 Essay : 6	Mc : 1 Essay : 1	
C5 (Evaluating)	-	-	
C6 (Creating)	-	-	
Total		25	

*Note: Mc stands for Multiple Choice

The table shows that in the Daily test 1 made by teacher 1, there are 19 questions typed multiple choice and 6 questions typed essay. Furthermore, the level of thinking of each questions are found through analysis. In fact, there are 16 questions of multiple choice and 4 questions of essay categorized as Remembering (C1) for example the question number

8 of multiple choice (*What is the color of her skin?*) The question asks the students to recall the information provided in the text. According to Bloom (1956), remembering (C1) is the level where students remember or memorize facts or recall the knowledge they learn before.

Additionally, there are 2 questions of multiple choice and 1 question of essay categorized as Understanding (C2) for example, the question number 2 of multiple choice (*What is the text about?*) The question asks the students to conclude about the text.. Thus, all of them are labelled as LOTS.

On the other hand, there are 1 question of multiple choice and 1 question of essay categorized as Analyzing (C4) for example question no 7 of multiple choice (*Which statement is NOT true about Mrs. Dina?*) The question asks the students to analyze the wrong statement of four provided sentences. These 2 questions are labelled as HOTS. All in all, the questions with LOTS category dominate the test item of daily test 1 of teacher 1 than HOTS questions.

Table 4.2: The Conclusion of Daily Test 2 of Teacher 1

Six Levels of Cognitive	Item Number	Total
C1 (Remembering)	Multiple Choice : 3,4,5,6,7, 8,9,10,11, 12,13,14,15 Essay II : 1,2,3,4,5	Mc: 13 Essay : 5
C2 (Understanding)	-	-
C3 (Applying)	Essay III, IV	Essay: 2
C4 (Analyzing)	-	MC: 2
C5 (Evaluating)	-	-
C6 (Creating)	-	-
Total		22

The table shows that in the Daily test 2 made by teacher 2, there are 15 questions typed multiple choice and 7 questions typed essay. Furthermore, the level of thinking of each questions are found through analysis. In fact, there are 13 questions of multiple choice and 5 questions of essay categorized as Remembering (C1), for example the question number 11 (*If today is Friday, so....is Thursday*).

The question asks students memorization of what they have learned.

Additionally, there are 2 questions of essay categorized as Applying (C3) for example, the questions of essay part IV (*Write your identity?*) The question asks students to write the many sentences based on the command, it means that the students practice of what they have learned. Thus, all of them are labelled as LOTS. Besides, there are 2 questions of multiple choice categorized as Analyzing (C4) for example the questions of multiple choice number 1 (*Which statement is FALSE according to the text above*). The question asks the students to analyze the wrong statement of four provided sentences. These 2 questions are labelled as HOTS. All in all, questions with LOTS dominate the test item of daily test 1 of teacher 1 than HOTS questions.

Table 4.3: The Conclusion of Daily Test 1 of Teacher 2

Six Levels of Cognitive	Item Number	Total
C1 (Remembering)	Multiple Choice : 1,2,3,4,5,6,7,8,9,10, 12,14,16,18,19,20	16
C2 (Understanding)	15	1
C3 (Applying)	Essay III, IV	0
C4 (Analyzing)	Multiple choice: 11,13,17	3
C5 (Evaluating)	-	-
C6 (Creating)	-	-
Total		2

The table shows that in the Daily test 1 made by teacher 2, there are 20 questions typed multiple choice. In fact, there are 16 questions of multiple choice categorized as Remembering (C1) for example the question number 1 (*They have a new netbook. This is __netbook*). The question asks students memorization of what they have learned to complete the sentence.

Moreover, there is only 1 question of multiple choice categorized as Understanding (C2) the example of question number 15 (*The above text is called__*). The question asks the students to conclude the information provided in the text. Thus, according to Anderson's explanation, all of them are labelled as LOTS.

However, there are 3 questions of multiple choice categorized as Analyzing (C4) for example, the question number 17 (*Which sentence is wrong?*).

The question asks the students to analyze the wrong sentence of four provided sentences. These 2 questions are labelled as HOTS. Again, it can be concluded that LOTS questions dictate the level of thinking in the test item 1 made by teacher 2 than HOTS.

Table 4.4: The Conclusion of Daily Test 2 of Teacher 2

Six Levels of Cognitive	Item Number	Total
C1 (Remembering)	Multiple Choice : 1,2,3,4,5,8,11,12,13, 14,15,17,18,19,20, 21,22,23,24,25,26, 27,28,29,30	25
C2 (Understanding)	6,9,10	3
C3 (Applying)	-	0
C4 (Analyzing)	Multiple choice: 7, 16	MC: 2
C5 (Evaluating)	-	-
C6 (Creating)	-	-
Total		30

The table shows that in the Daily test 2 made by teacher 2, there are 30 number of questions typed multiple choice. Furthermore, after analyzing the category of each question, it can be seen that there are 25 number of questions categorized as Remembering (C1), for example, the question number 1 (*How many sharpeners does Budi have*) The question asks the students to recall the information provided in the table. Furthermore 3 number of questions categorized as Understanding (C2) for example, the question number 6 (*The song suggests that anyone is encourage to ?*). The question asks the students to conclude about the song suggest Therefore, these questions are labelled as LOTS.

Additionally, there are 2 questions of multiple choice. However, there are 2 questions of multiple choice categorized as Analyzing (C4) for example the question number 7 (*In the text above Vita is..... girl. She is ready to help her father anytime*). The question asks students to analyze implicit information from the dialogue. These 2 questions are labelled as HOTS. Therefore, the test item is dominated by LOTS rather than HOTS questions.

Furthermore to support the results, here is provided the supportive data, questionnaire and interview.

4.1 Questionnaire Result

4.1.1 Revised Bloom's Taxonomy

To prove the teachers' understanding on Revised Bloom's Taxonomy including HOTS and LOTS category, they are provided a questionnaire. The questionnaire consists of ten statements and divided into four categories. Those are: Revised Bloom's Taxonomy, Evaluation, LOTS and HOTS, and Teachers' motivation. The following explanations are the results of the questionnaire.

In point of revised bloom's taxonomy, there are two statements. Moreover, both of teachers answer yes. The teachers say yes in the first statement means that they understand and know well about Revised Bloom's taxonomy especially in cognitive domain. Furthermore, in the second statement of the questionnaire, the researcher gave the question related to whether or not the teachers know the function of Revised Bloom's taxonomy in making questions for test. The answers of both teachers are "Yes". Moreover, she knows about the function of Revised Bloom's Taxonomy itself.

4.1.2 Evaluation

Evaluation is a teacher activity to know the students' understanding about the material. Moreover, teachers must evaluate their students. One way to evaluate the students is giving them some tests, like daily test, mid test and final test. In point evaluation, there are three statements that are being asked to the teachers. Based on the answer of both of teachers, in statement one, they say "yes". It means they evaluate their students periodically; therefore, the teachers want to know the students' achievements. Moreover, in statement two, they answer "No". In making test item to evaluate the students both of the teachers mixing the use of questions existed in source book and internet by considering the suitability with the material and the basic competence required. Then, in statement three, they said "yes". It means that the questions that the teachers made to evaluate the students mostly are made by themselves.

4.1.3 LOTS and HOTS

Based on the answer of the questionnaire related to the understanding of HOTS and LOTS questions, both of teachers said "yes" to the three statements. They can differentiate between HOTS and LOTS questions. Moreover, when they construct the question for the items test, they also considered the

use of HOTS and LOTS category. Fundamentally, they can make the question in level HOTS. They said that, HOTS questions in first grade is still process, they still adjusted with the students' ability. They also still practice to know clearly how to make HOTS questions. However, over all they know and understand about HOTS and LOTS categories in making test item.

4.1.4 The Teachers' Motivation in Constructing The Good Item Test

The last category of this questionnaire is about Teacher's motivation in constructing good item test. The one way to increase the good quality of teachers in making test, the teachers should follow the training about how to make good questions. In the first statement, teacher one said "yes", while teacher two said "no". The teacher one has followed to the training. She wants to join the training about how to make good questions specifically. Furthermore, the teacher two has not joined the training yet. She wants to join the training about how to make good questions. It supposed to be better in making test item. Moreover, in the statement two, both of teachers said "yes" that means they know the benefits and need trainings in order to develop their skills. Thus, they are trying to be better in making good test items; moreover, in constructing HOTS questions.

All in all, based on the answers of questionnaire, it shows that both of the teachers know about revised bloom's taxonomy in general and its thinking level categories. Then, they know and could make the questions regarding LOTS and HOTS category, by adjusting the students' ability.

4.2 Interview Result

To prove the teachers' understanding on Revised Bloom's Taxonomy and LOTS and HOTS category, they are provided an interview. This technique was done by having the interview with both the teachers from two different schools. The interview section is divided into four categories: Evaluation, Revised Bloom's Taxonomy, LOTS and HOTS, and Teachers' motivation. The explanations below are the results of the interview.

4.2.1 Evaluation

Based on the result of interview above, the questions are related with the evaluation categories. The teacher 1 from school 1 said that she is evaluating the students periodically. She evaluates the students

by giving them some tests in the last of learning activity. She want to know how far the understanding of the material and the students' progress, it means she gives the formative assessment. According to Hanna and Dettmer (2004) Formative assessment provides feedback and information during the instructional process, while learning is taking place, and while learning is occurring. Formative assessment measures student progress but it can also assess the teacher progress as an instructor.

After wards, she always analyzed the result of tests by using "Anates", it is supposed to make the teacher know about the level of difficulties in every question, if the questions are too high for students, so the teacher revised it, and changed it to easier questions than before. Giving the evaluating to students is included to the component of teachers' pedagogical competence. According to the National Standard of Education in Chapter 28 verse 3, pedagogical competency is the ability to be developed by the teachers include student development, theories and principles of learning, curriculum development, educational learning activities, and development of potential learners, communication with students, and assessment and evaluation. There are nine components that include to pedagogical competency, only two components that used in this research: assessment and evaluation.

Furthermore, the teachers 2 from school two said that she evaluating the students periodically, she evaluates the students by giving them some tests in the end of the chapter, sometimes she gives some tests the students spontaneous, in the last of learning activity, sometimes she gives the test in the beginning of learning activity (pre-test), it is supposed to know the ability and readiness the students. It means the teacher give the formative assessment, According to Hanna and Dettmer (2004) Formative assessment provides feedback and information during the instructional process, while learning is taking place, and while learning is occurring. Formative assessment measures student progress but it can also assess the teacher progress as an instructor. in addition the teacher sometimes give the diagnostic assessment, the one example of diagnostic tests is pre-test, according to diagnostic assessment can help to identify the students' current knowledge of a subject, their skill sets, and capabilities, and to clarify misconceptions before teaching takes. Thus this is for knowing students' strengths and weaknesses.

4.2.2 Revised Bloom's Taxonomy

Based on the result of interview above, for concept of Revised Bloom's Taxonomy, teacher 1 said that she knew about bloom taxonomy, she said that the teacher must know about it. Because the function of Revised Bloom's Taxonomy is as the reference in making the item tests. That answer supported by Anderson (2001) the use of revised bloom's taxonomy is to inform or guide the development of assessments (test and other evaluations of students learning), curriculum (units, lesson, project, and other learning activities), etc. It means that revised bloom's taxonomy is important for teacher, because it can be used as references for teachers when they make test item for evaluate the students. Moreover, the teacher one only know the general of bloom's taxonomy, actually she did not know well about the level of revised bloom's taxonomy.

It is different from teacher 1, the teacher 2 has lack of understanding the revised bloom's taxonomy, when the researcher asked her about revised bloom taxonomy. She did not know well revised bloom's taxonomy.

4.2.3 LOTS and HOTS

Based on the answer of interview, both of the teachers can make the LOTS and HOTS questions. The item test of both of the teachers by modifying mixed sources, they made the question is from many references like internet, and other books. But, fifty percent they made the questions by themselves. When they made the questions, they considered the LOTS and HOTS categorize of their test item. They said that in the both of school, HOTS questions in seventh grade are still in process, because they still adjusted with the students' ability. But overall they knew and understand about HOTS and LOTS categorize.

Furthermore, teachers need to consider the use of HOTS level of questions for their students in order to gain good critical thinking. On the other hand, they are afraid if all questions are in HOTS level, the students' score will be low. It is better if the questions are mixed between HOTS and LOTS. However, the question is considered with the students' ability and the topic.

4.2.4 Teacher's Motivation

The one way to increase the good quality of teachers in making test, it should be held the training about how to make good questions. The teacher 1 has

followed to the training. However, the teacher 2 has not followed to the training yet. They are expecting the held for the focus training of making good questions considering HOTS questions. So, they can learn to make it.

5 CONCLUSION

After analyzing all test items provided by the two teachers, there are various level existed in it. By considering Anderson's statement about the classification of thinking level and LOTS and HOTS, it can be concluded that LOTS level on the questions mostly dominated than HOTS. This case should be a reminding to all teachers especially the two teachers for reconsidering the level of thinking in each question of the test items they made.

The following table represents all data analysis in committing the level of cognitive domain. According to Anderson (2001), the level of remembering (C1), understanding (C2) and applying (C3) are categorized as LOTS, while analyzing (C4), evaluating (C5) and creating (C6) are categorized as HOTS.

Table 5.1 The Conclusion of all tests of Teacher 1 and Teacher 2

RESP ONDE NT	Daily Test 1						TOT AL	Daily Test 2						TOT AL
	C1	C2	C3	C4	C5	C6		C1	C2	C3	C4	C5	C6	
T 1	20	3		2			25	18		2	2			22
T 2	6	1		3			20	25	3		2			30

Based on the table 5.1, most of questions of daily tests that made by two teachers are only commit with the C1, there are 79 numbers of 100 questions. There are 5 numbers of 100 questions commit with C2. There are 2 numbers of 100 questions commit with C3. However, from all tests item analyzed, there are only 9 numbers of 100 questions commit with C4 means HOTS level. Furthermore, this research is suggested for all teachers in order to develop their competence in constructing good

questions in test items by considering the thinking levels of cognitive domain.

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