

## HOTS (Higher Order Thinking Skills) in English Reading Exercises Textbook

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### ABSTRACT

This research related to the content analysis on English text book for the tenth grade students of senior high school. The objective of the study was to analyze the content relevancy of Erlangga English textbook to the curriculum 2013 revised 2017 specifically the types and aims of reading exercises and also the distribution of higher thinking skills in it. This is a descriptive qualitative research which applied document analysis method by Ary (2010). The data were collected from Erlangga English textbook 'Pathway' by M. Sudarwati and Eudia Grace for Senior High School and Madrasah Aliyah Grade X, which has published in 2014. The data were analyzed by using critical thinking analysis card for cognitive domain by Bloom. The results shown that the distribution of cognitive level in essay questions was dominantly by lower order thinking skills (LOTS) than higher order thinking skills (HOTS). This is proven from 147 essay reading questions, only 6.8% categorized to HOTS and 93.1% categorized to LOTS. It means the content of Erlangga English textbook was in lower level of critical thinking.

**Keywords:** content analysis, English Textbook, HOTS(Higher Order Thinking Skill, LOTS (Lower Order Thinking Skills)

### INTRODUCTION

Textbook play as a key part in teaching learning activity. It has important role as a source of reference and guidance for the students and the teacher himself in doing thus activity. A textbook give a clear framework to the learners in order to prepare themselves in learning process such what competence they are going to learn, what the teacher expect them to achieved, how they will be evaluate, so they can measure the progress of the teaching learning process and how far the goal is reached (Ur, 2009). Therefore, a textbook should has a clear goal and fulfilled the students' and teachers' need in providing the suitable material to developing the knowledge and skills. A good textbook is a book which has relevant material and appropriate to the students needs based on curriculum. But in fact, many books used are not relevant to curriculum especially English Text Book. According to Cunningsworth (2001) there is no textbook designed ideally for the market which fulfilled all the students' need. A teacher must confirmed and evaluate whether the contents of textbook are matching to the teaching objectives based on students' level and students needs before it is used as a handbook for the learning process and applied in the class. The textbook should be in line with the purpose of teaching and the curriculum.

In Indonesia, English textbooks are seen as transportation for obtaining foreign language whose validity and significance are rarely challenged. They are highly respected by ambitious people who try to convey their message about the course and the compatibility with curriculum to see whether the material is correspond to the students as the object, e.g. for teaching language, a textbook should elaborate vocabulary learning to the language skills; reading, writing, listening, and speaking. Therefore, any aspect of textbook needs an evaluation, such as the variation and the validation of exercises or the tasks.

Reading is a complex and difficult skill to master especially for a second language learners (Latif, 2015). Teacher and students as a component of learning process need to develop the critical and creative thinking skill in order to mastering reading skills. Many levels of reading ability that

presented in many types of reading activities should be done by the students in all levels of thinking domain merely than decoding spesific words (Linse, 2006). Furthermore, reading exercises should give a broader insight to the students' critical thinking to sharpen their higher order thinking skills ability properly. On contrary, in some situations, students can not understand the reading questions because the sentences are ambiguity and they also do not understand to what have been read. Meanwhile, the student were supposed to derive the significance of reading such as analyzing and synthesizing as an essential part of reading process. Based on this condition, it is needed to analyzed the higher order thinking skills used in reading essay exercises on the English textbook which is mainly used in most of thus level in order to give any information of the relevancy to the students need and curriculum.

There are three main domains in the cognitive skills whichs is categorized into higher order thingking skills based on Bloom's taxonomy; analyzing, evaluating, and creating (Bloom, 1956). HOTS in the learning process is used to increase student's critical and creative thingking skill ability which is used to evaluate the information given. By having this, they will prepare themselves facing the real world. For that, Indonesia's new education curriculum which was aimed to increase the quality of education; teacher, students, education tools and goals. This new curriculum was launched in 2013 and revised in 2017 that applied in all leducation level. There are five stages of scientific approach which is also categorized into HOTS; obeservation, questioning, exploration, association, and communication. Therefore, it is important to analyze the application of HOTS in essay reading exercises in English textbook to investigate how far is the using of HOTS itself in developing the students' ability to think critic and creative specifically in English reading skills.

(Syafar, 2014). Thus, this study was investigate the relevancy of the reading exercise in Erlangga English textbook 'Pathway' which used by the 10<sup>th</sup> grade students of Senior High School with the new curriculum.

## METHOD

This is a descriptive qualittave research which used content analysis method that discusses the content of information in the textbook. According to Ary (2010), content or document analysis is a research method applied to written or visual materials to identify specified characteristics of the material in the form of print media like a textbook, newspaper, media massa, media social, etc. Two data sources were used to gain the information needed; the reading textbook as a source of primary data and analysis card for cognitive domain. Here, the essay questions of reading exercises from Erlangga English textbook 'Pathway' by M. Sudarwati and Eudia Grace published on 2014 was analyzed by using analysis card of cognitive domain to describe the critical thinking used in it. The data was collected by following these stages: (1) observing the material of textbook to find the reading tasks in Erlangga English textbook for X senior high school, (2) collecting, categorizing and listing the data into the six cognitive skill according to taxonomy Bloom categorizing table, (3) analyzing the data gain to get the compariosn of HOTS and LOTS distributions. Each cognitive domain will be counted and listed to each category. Then, the essay reading question that belongs to the higher order thinking level: analyze, evaluate, and create is analyzed to describe qualitatively interpreted.

**Table 1.** The Cognitive Bloom's Taxonomy Chart

Level	Keywords	Question
Remember: Recall data or information from long-term memory. This level	Define, describe, identify, label, list, match, name, outline, recall, recognize, reproduce, select, state	1. Where did ...? 2. What did ...?

Level	Keywords	Question
emphasizes on recognizing and recalling.		<ol style="list-style-type: none"> <li>3. Who/whom/whose was/were ...?</li> <li>4. When did...?</li> <li>5. How many...?</li> <li>6. Who was/were the main ...?</li> <li>7. How did ... happen?</li> <li>8. Which one ...?</li> </ol>
Understand: Determine the meaning, translation, and interpretation of instructions and problems. This level emphasizes on grasping the meaning, interpreting, classifying, comparing, explaining, and summarizing	Comprehending, converting, defending, distinguishing, estimating, explain, extend, generalize, give examples, interpret, paraphrase, predict, rewrite, summarize, translate	<ol style="list-style-type: none"> <li>1. What does it mean ...?</li> <li>2. Which statement support...?</li> <li>3. What is the main idea of...?</li> <li>4. How would you summarize...?</li> <li>5. How would you paraphrase the meaning...?</li> </ol>
Apply: Use a concept in a new situation or unprompted use of an abstraction. This level emphasizes on the ability to recognize, execute, and implement a form or a pattern as a means of understanding.	Apply, change, compute, construct, demonstrate, discover, manipulate, modify, operate, predict, prepare, produce, relate, show, solve, use	<ol style="list-style-type: none"> <li>1. What is the real example of that phenomenon?</li> <li>2. What would happen to you if..?</li> <li>3. What do you think..?</li> <li>4. Why do you think...?</li> <li>5. ... do you think ...?</li> <li>6. How would you organize ... to show ...?</li> <li>7. How would you solve the problem?</li> <li>8. What others way would you plan to ...?</li> </ol>
Analyze: Separate material or concepts into component parts so that its organizational structure may be understood. This level emphasizes on detion of the relationships of the parts and of the way they are organized. It involves differentiating, organizing, and attributing	Analyze, break down, compare, contrast, diagram, deconstruct, differentiate, discriminate, distinguish, identify, illustrate, outline, relate, select, separate	<ol style="list-style-type: none"> <li>1. What things would you have used ...?</li> <li>2. What things are similar / different?</li> <li>3. What things couldn't have happened in reallife?</li> <li>4. What caused/happen ... to act the way he/she did? actthe way he/she did?</li> <li>5. Which of these statement is facts and which one is opinions?</li> </ol>
Evaluate: Make judgments about the value of ideas or materials based on the criteria and standards. It emphasizes on checking and giving critiques about an idea or value.	Appraise, compare, conclude, contrast, criticize, critique, defend, describe, discriminate, evaluate, explain, interpret, justify, relate, summarize	<ol style="list-style-type: none"> <li>1. Select the best ... Why is it the best?</li> <li>2. What do you think will happen to...?</li> <li>3. What judgment would you make about...?</li> <li>4. Which character would you like to meet? Why?</li> <li>5. Was ... good or bad? Why?</li> <li>6. Do you interest to the strory? Why? What was the most important</li> </ol>

Level	Keywords	Question
		momnet in the story?? Why? 7. Give your opinion to the ...?
Create: Build a structure or pattern from diverse elements. Put parts together to form a whole, with emphasis on creating a new meaning or structure. This category involves generating, planning, and producing	Categorize, combine, compile, compose, create, devise, design, explain, generate, modify, organize, plan, rearrange, reconstruct, relate, reorganize, revise, rewrite, summarize, tell, write	1. How would you improve...? 2. How would you change the plot..? 3. What do all these pictures have in common? 4. Explain how you use your imagination to draw a picture of ...? 5. Rearrange a different ending of ...?

## RESULT AND DISCUSSION

A textbook plays a great role for achieving the objective of teaching learning process. Therefore, an analysis of its is needed to check the relevancy and accuracy to the curriculum need. In order to improve the students' critical thinking, the application of higher order thinking skill in evaluating the students ability is a must. This study is focused on the reading skill that investigate the essay test provided in the reading exercises which applied the 2013 revised curriculum. The result of investigation infers that ratio of three cognitive domain in higher order thinking skills is quite far. The essay items has no direct attention on it. Most of the them were still in lower order thinking skills.

There are 332 items of reading exercises in form of short answer question, true or false question, completion, matching, and essay question. After collecting and sorting the data, 147 items of essay questions were categorized into six cognitive domain; knowledge, comprehension, application, analysis, evaluate, create, which was divided again into two parts; Low Order Thinking Skills (LOTS) and Higher Order Thinking Skill (HOTS). The LOTS category are knowledge, comprehension, application and the others were categorized into HOTS. The results of the analysis were presented in the following table.

**Table 2.** Data LOTS and HOTS

Level of Thinking	Bloom Taxonomy	Data question	Percentage	Total (%)
LOTS	C1 (knowledge)	57	38.8%	93.2%
	C2 (comprehension)	62	42.2 %	
	C3 ( application)	18	12.2 %	
HOTS	C4 (analysis)	8	5.5 %	6.8%
	C5 (evaluate)	2	1.3 %	
	C6 (create)	-	-	
<b>Total</b>		<b>147</b>	<b>100%</b>	<b>100%</b>

After analyzing the 147-essay reading exercises item, it was found that 5 from 6 cognitive domain of Bloom Taxonomy was applied in the text. There are 10 questions were categorized into the higher thinking level; analyzing, evaluating, and creating domain. Eight (8) items were categorized into analyze domain (C4), 2two (2) items into C5 (evaluate domain), and none in C6

or create domain. The following table is presented the data analysis HOTS in Pathway Erlangga English textbook.

**Table 3. HOTS Analysis**

Ch	No	Essay Reading Question	Higher Order Thinking		
			C4	C5	C6
2	29	What kind of person do you think the writer is?	✓		
	30	What kind of a person do you think the receiver is?	✓		
4	56	Why do you think andi manuhutuse send a letter to Mr Wirakusuma reserve a room for him?	✓		
6	79	What kind of person do you think the writer is?	✓		
	80	What kind of a person do you think the receiver is?	✓		
8	92	After reading the text, what do you think of the “Purnama Bhakti pertiwi” Museum?	✓		
10	122	What do you think of David Backham	✓		
	126	What can we learn from Mike’s attitude?		✓	
11	132	Was the story a tragic one?why?		✓	
	137	What do you think of the end of the story?	✓		

Note : - Ch = Chapter

The table above shown the essay questions which actegorized into HOTS. The analysis was describe as follow:

1. The question from number 29,30, 56,79,80,92,122, 137 is C4, analyze domain, because the question emphasized on the detention of the relationships of the each parts and how they are arranged. Such as to different implicate, organizing, and attributing. The used of ‘why do you think’, and ‘ ... do you think’ indicate the intruactional question which categorized into analysis level. This involved indentifying and analyzing the relationship between parts in order to give rationale or reason. This level of thinking is referred to as HOTS.
2. Number 126,132 is categorized into evaluate domain, C5, because they are included in emphasizes, checking categorizes and giving criticism about an ideas or values. The used of those intruactional question were cateorized into evaluate level. This involved judgments, value based on the criteria and evaluate which is also refered top HOTS.

The comparison of evaluating and analyzing skills is 1:4, presented celearly in table 4.

**Table 4. Percentage of HOTS**

No	Higher Order Thinking Skill	Essay Reading Items	Percentage
1	Analyze	8	80%
2	Evaluate	2	20%
	<b>Total</b>	<b>10</b>	<b>100%</b>

After analyzing from 147 essay reading questions in the textbook, there were only 10 or 6.8% questions contain higher thinking skills. These HOTS questions were categorized into 8 questions obtain analysis skills (5,5%), 2 question was categorize obtain evaluate skill (1.3%), and LOTS has 93.2%. These LOTS question were categorize obtain knowledge skill (38.8%), comprehension (42.2%), application (12.2%). They infer that the author more focuses on analysis skill. The textbook are not directed on creative skill because the distribution is zero. In addition, the distribution to the three (3) cognitive domain looks so distant and uneven. Therefore, it is clear that the distribution of the higher-order thinking skill are not balancing in the essay reading question. The research finding of content analysis on this English textbook based on six domains

of Bloom's Taxonomy on revised edition (Krathwohl, 2002) shown that the delivery of the higher-order thinking skill in the reading essay of this textbook is lower because from total reading essay exercises there are 147 questions this textbook which only 10 question categorized into HOTS. This finding was in line with Prawati (2014) and Anazy (2016) that the distribution of higher order thinking level in reading exercises of Pathway English textbook for the Eleventh grade students of senior high school is lower than lower order thinking level.

## CONCLUSION

Based on the data obtain and data analysis, it can be drawn that the distribution of lower order thinking in essay reading questions is greater than higher order thinking skills. From 147 questions, only 6,8% or 10 questions were categorized into HOTS. On ccontrary, the distribution of lower thinking skill is 93, 1% or 137 questions. That means ratio of analysis from this study, they are critical thinking to the lower-thinking skill is much different, 1: 14. Finally, it concluded that higher level thinking skills in this book is low. The author still do not pay attention on analyzing, evaluating, and creating domain.

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