



**THE COMPATIBILITY OF READING EXERCISES WITH BLOOM'S REVISED TAXONOMY AND 2013 CURRICULUM (A Case of English Textbook Entitled *Bahasa Inggris* for Grade XI Published by Department of National Education 2014)**

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**Abstract**

This study is aimed at identifying the cognitive processes and knowledge dimension of the Revised Bloom Taxonomy involved in the reading exercises; determining how the Lower Order Thinking Skills and Higher Order Thinking Skills are realized through the reading exercises; and determining how the reading exercises in the textbook are compatible with 2013 curriculum. The English textbook being analysed is "BAHASA INGGRIS" for grade XI published by the Department of National Education 2014. The results concluded that (1) there are only three cognitive processes found: *Remember*, *Understand* and *Evaluate*, indicate that the reading exercises are not in hierarchical order. (2) There are two knowledge dimensions found: *factual knowledge* and *metacognitive knowledge* imply that the knowledge dimension offered is not varied. (3) The reading materials promote more Lower Order Thinking Skills than Higher Order Thinking Skills. (4) The reading exercises in the textbook is less compatible with 2013 curriculum. Each chapter presents only one reading text and it lacks of information on the generic structure and the linguistics features of the related text. A textbook should not only be compatible with the current curriculum, but also have a characteristic of cognitive development and critical thinking.

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## INTRODUCTION

Reading is categorized as an important skill that sustains other language skills (listening, speaking, writing) since the written words are the sources of knowledge for readers. Richards and Renandya (2002:273) affirm that reading receives a special focus since the written texts serve various pedagogical purposes in which comprehending the written texts can enhance the process of language acquisition. Meanwhile, to get general objective of reading there are several things to develop essential reading process and abilities; they are word recognition, vocabulary development, text structures awareness and strategic reading (Celce-Murcia, 2001:188). Such competencies can be developed through the reading materials presented in the textbook which is usually used in a second language classroom. The problem is whether the textbook has already provided enough materials which enables students to develop their reading skill.

One of the taxonomies that can be used to evaluate the learning materials of a textbook is Bloom's Taxonomy. It is a multi-tiered model of classifying thinking, according to six cognitive levels of complexity (Forehand, 2005:2). The higher the level, the more complex of activities that are involved.

Moreover, materials and exercises provided in the textbook should be match with the current curriculum and learners' needs. The uses of skills in communication become the main priority for 2013 Curriculum in term of communicative purposes. Students are encouraged to use English as often as possible with various theme, context, and topic so that they can use it in their daily activities.

There are four statements of the problems raised in this study. They are: (1)

what the cognitive processes are involved in the reading exercise given in the textbook. (2) What the knowledge dimensions are involved in the reading exercise given in the textbook. (3) How the Higher Order Thinking Skills (HOTS) and Lower Order Thinking Skills (LOTS) are realized in the reading exercises. (4) How the reading materials in the textbook are compatible with 2013 curriculum. The objectives of the study are describing the cognitive processes involved in the reading exercise given in the textbook, describing the knowledge dimensions involved in the reading exercise given in the textbook, explaining how the Higher Order Thinking (HOT) skills and Lower Order Thinking (LOT) skills are realized in the reading exercises of the textbook, and determining the compatibility between the reading materials in the textbook and 2013 curriculum.

Classroom teaching consists of three main elements: the teacher, the student and the textbook that presents the curriculum. The textbook is a synonym for curriculum and it is the student's guide which supplies him with information and enriches his mind with knowledge as Saif suggested in Abdelrahman (2014:139). He also found that 90% of students depended on the textbook and spent the same percentage of time on studying it. Richards in Nahrkhalaji (2012:185) adds that without a textbook, a language program may lose its central core and students may lack a systematically developed syllabus.

Textbook provides a plan for learning, a visible outline of what is to be learned in the classroom, as a bank of resource materials and ideas. The aim of the textbook should also correspond as closely as possible to the aim of the teacher, as well as the educational goal as stated in the curriculum. Therefore, textbook analyses and evaluation may help the teachers to improve them and

help them to attain useful insights into the basis of material. A textbook should also have to be relevant to the existing curriculum, in this case is 2013 curriculum.

In Indonesia, the implementation of textbook and classroom teaching of English language are controlled with several considerations. Government established BSNP (*Badan Standar Nasional Pendidikan*) along with *Puskurbuk (Pusat Kurikulum dan Perbukuan)* to deal with the development of textbook used in Indonesia. *Badan Standar Nasional Pendidikan (BSNP)* itself has released an evaluation process in *Puskurbukin* form of a rubric assessment to evaluate the properness and also the suitability of a textbook. The rubric assessment from BSNP is designed to qualitatively describe and assess any content related items and materials in a textbook then quantitatively coding it. The rubric assessment used in this study is limited to the feasibility of content. (<http://www.puskurbuk.net/downloads/browse/BTP/Instrumen+Penilaian+Tahun+2013/03+Instrumen+Peminatan+Ilmu+Budaya+dan+Sastra/08+Instrumen+Bahasa+Inggris/>)

### **Feasibility of Content.**

This feasibility of content is a group of assessment about the content of the textbook. The feasibility content includes three measurements which are compatibility of materials with (KI) and (KD), the accuracy of materials, and the last supporting materials.

#### **1) The Compatibility of materials with (KI) and (KD).**

In this criteria of feasibility of content which is compatible with KI and KD the criteria was divided into two sub criteria which is Completeness and In-Depth.

#### **a) Completeness (Kelengkapan Materi)**

In completeness criteria, textbook is expected to expose students to understand and produce both interpersonal and interactional conversation whether in spoken or written to help them interact in contextual and themed situations along with many other characteristic, religious and aesthetic values included.

#### **b) In-Depth (Kedalaman Materi)**

In this criteria, textbook are expected to fulfill several point of In-Depth or (kedalamanmateri). The first is exposure or (pajanan) which means that the textbook are expected to expose student with as many kinds of text that relevant with students' daily life in order to help them get used to any kinds of texts as possible. Then, text retention (retensipembentukanteks) means that textbook should guide students in understanding the social function, structure of text, and linguistic features. The last is Production (produksi) textbook which should be able to guide students in every step in producing both verbal and written text.

### **2) The accuracy of the materials.**

In this criteria of feasibility of content which is the accuracy of the materials, the criteria was divided into three sub criteria which is Social function, Generic structure and Linguistic feature.

#### **a) Social Function (Fungsi sosial)**

In this criterion, the text provided in the textbook or the exercises given from the textbook that have been done by the students are expected to have values in social function in its relation with students daily life either in interpersonal or interactional.

*b) Generic Structure (Unsur dan Struktur Makna)*

In this criteria, the text provided in the textbook or the exercises given from the textbook that have been done by the students are expected to give the students an insight and ideas to think systematically in doing exercise or producing it in daily life.

*c) Linguistic Feature (Fitur Linguistik)*

In this criteria, the text provided in the textbook or the exercises given from the textbook that have been done by the students are expected to be understandable and fulfill the norm and characteristic values of a good communications in students daily life.

**3) Supporting materials.**

In this criteria of feasibility of content which is supporting materials, the criteria was divided into three sub criteria which are Up-to-Datedness, Development of life skills and Development of Diversity Insight.

*a) Up-to-Datedness*

In this criteria, every item in supporting the materials and exercise provided within the textbook (Tables, Pictures, Texts, References) should be taken from a relevance and newest sources available.

*b) Development of Life Skills*

In this criterion, every text and communicative exercise and task available within textbook should motivate students toward a good personalities that concern about social, academic and vocational life.

*c) Diversity Insight*

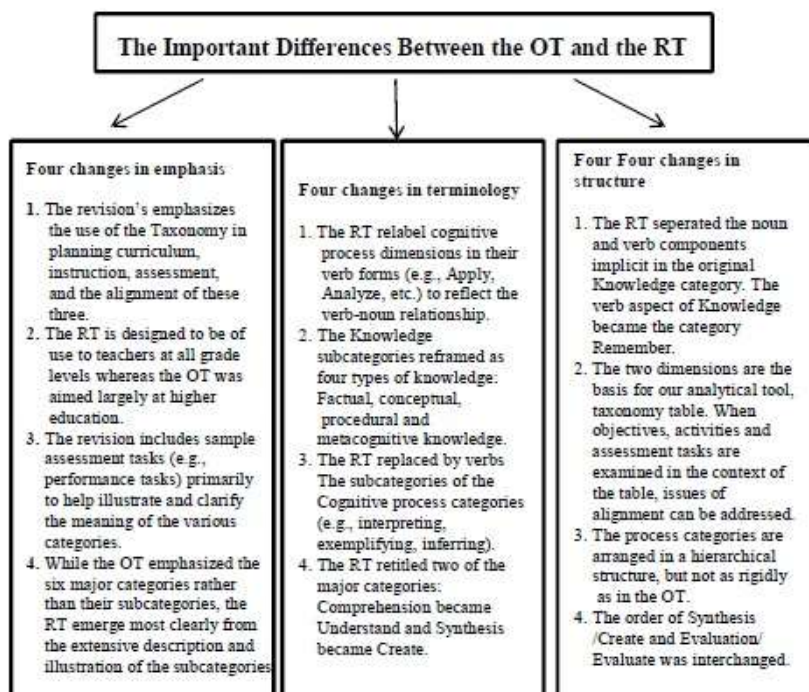
In this criterion, every text and communicative exercise and task available within textbook should motivate students toward a good citizen that concern, understand and appreciate the multicultural diversity.

**The Revised Bloom's Taxonomy**

Initially, Bloom's taxonomy was developed by Benjamin Bloom and his associates in 1956. It was intended to provide for classification of educational system goals, especially to help teachers, administrators, professional specialist, and research workers to discuss curricular and evaluation problems with greater precision (Bloom as cited in Amer, 2006:215). It was assumed that mastery of each simpler category was prerequisite to mastery of the next more complex one (Krathwohl, 2002:213).

In its development, the original of Bloom's Taxonomy had been revised by Anderson and Krathwohl (2001). The differences between the Original Taxonomy (OT) and the revised version (RT) lie on the emphasis, terminology, and structure. That difference is summarized in the table figure:

Figure 1: The important differences between the OT and the RT. (Adapted from Anderson and Krathwohl 2001: 263–268)



Furthermore, the most notable change in the revised taxonomy is the move from one dimension to two dimensions. The revised taxonomy separates the *noun* and *verb* components of the original *knowledge*

category into two separate dimensions, namely: (1) the *Knowledge Dimension* that constitutes *noun* aspect, and (2) the *Cognitive Process Domain*, that constitutes the *verb* aspect (Anderson and Krathwohl, 2001:308). The move from one dimension to two dimensions in the revised taxonomy has led to another notable change in the structure of the taxonomy, i.e. the formation of the two-dimensional taxonomy table as shown in the following table:

**Table 1: The Revised Bloom's Taxonomy Table**

The Knowledge Dimension	The Cognitive Process Dimension					
	1 Remember	2 Understand	3 Apply	4 Analyze	5 Evaluate	6 Create
A. Factual Knowledge						
B. Conceptual Knowledge						
C. Procedural Knowledge						
D. Metacognitive Knowledge						

(Anderson and Krathwohl, 2001:28)

The table presented above is the analytical tool for the revised taxonomy. This table reflects a dual perspective on learning and cognition. Having two dimensions to guide the process of stating objectives and planning and guiding instruction, leads to sharper, more clearly defined tasks and assessments. Moreover, it also leads to a stronger connection between objectives and instructions given in each task or assessment.

**METHODOLOGY**

This study belongs to qualitative research. With the help of document analysis in collecting the data from the textbook, the writer used descriptive qualitative method in analyzing, interpreting and reporting the data that is described in the English textbook. This kind of analysis is done with the help of words to describe any detailed conclusion or interpretation in a less biased and subjective manner. This method was found out to be suitable with the purpose of the research in examining the materials in a written and visual data provided in English textbook.

The data was taken from the English Textbook “BAHASA INGGRIS” published by the Department of National Education in 2014 used for the first semester of year XI Senior High School. The data was collected by identifying the reading exercises found in

textbook. The reading exercises are distributed in three sections: pre reading activity, while reading, and post reading activity. The data is then analyzed using Bloom’s Revised Taxonomy and the Rubric assessment for feasibility of content issued by BSNP (Badan Standar Nasional Pendidikan). Some grounded theories on textbook analysis are also used as a guideline in analyzing and interpreting data. To help presenting the data in forms of numbers, the following formula is used (Sudjiono, 2005: 42) :

$$P = \frac{F}{N} \times 100 \%$$

- Notes
- P : Percentage
- F : Frequency
- N : The Sum of the Frequency

**RESULTS AND DISCUSSION**

The result of the analysis reveals that not all the cognitive process dimension have been covered in the reading exercises. There are only 3 out of 6 cognitive processes are found, namely: *Remember*, *Understand* and *Evaluate* Meanwhile the three others – *Apply*, *Analyse* and *Create* – are not covered. The overall finding can be seen in the following table:

**Table 3: Distribution of Cognitive Process Dimension**

	Remember	Understand	Apply	Analyse	Evaluate	Create	Total
Chapter 1	4	1	-	-	2	-	7
Chapter 2	4	1	-	-	2	-	7
Chapter 3	4	2	-	-	2	-	8
Chapter 4	4	3	-	-	2	-	9
Chapter 5	5	4	-	-	2	-	11
Total	21	11	-	-	10	-	42
Percentage	50%	26%					100%

It can be seen that half of the reading exercises belongs to the cognitive level of *Remember*, which is the initiate level of the taxonomy. Activity in this level typically involves memorization and recall of information with no evidence of understanding. Learners absorb, remember, recognize and recall information.

The following cognitive level is *Understand*. They are realized in 11 instructions. The reading activities related to this level requires students to interpret, explain and discuss material. Some of them also require students to understand and predict consequences or effects from the problems presented in the material.

Meanwhile, the least number of instructions belongs to the cognitive level of *Evaluate*, which are realized in 10 instructions. Activities in this level usually involve the students to present and defend their opinions and personal reactions toward the problems presented in the reading material. The output of this activity can be in the form of critique, judgment, opinion, recommendation, report and self-evaluation.

The analysis on Feasibility of Content using the rubric assessment proposed by BSNP is summarized on the following table:

This is also shown that most of the reading exercises in the textbook belong to Lower Order Thinking (LOT). Is is represented by the cognitive level of *Remember*(50%) and *Understand* (26%). Meanwhile the Higher Order Thinking (HOT) Skills is represented by the cognitive level of *Evaluate*(24%). Whereas, students at year 11 and 12 should be given more activities relate to Higher Order Thinking (HOTS). This is in line with Collins (2014) who argues that students should begin to practice higher-order thinking skills from primary school, but by the time they reach year 11 and 12 the bulk of class and assessment questions and discussion should be in the higher levels of the taxonomy.

In terms of the knowledge dimensions of Bloom Revised Taxonomy, it is recorded from the analysis that the factual *knowledge* is the most knowledge dimension found in the reading exercises. They are reflected in 24 instructions. The next knowledge of dimension that is recorded is *metacognitive knowledge* which is reflected in 18 instructions.

**Table 3: Feasibility Of Content**

Sub component	Items	Chapter					total
		1	2	3	4	5	
The compatibility of reading material with Core Competence and Basic Competence	Completeness	4	4	4	4	4	20
	In depth	2	2	2	2	2	10
The accuracy of the materials	Social functions	3	3	3	3	4	16
	Generic structure	1	1	1	1	4	8
	Linguistic feature	1	1	1	1	4	8
Supporting materials	Relevance	4	4	4	4	4	20
	Development of life skills	4	4	4	4	4	20
	Development of diversity insight	3	3	3	3	3	15
							117



To get into conclusion in how far the reading material in the English textbook of “BAHASA INGGRIS” for grade XII published by the Department of National Education 2014, the score for the very first item to the last item in the rubric is added.

$$P = \frac{F}{N} \times 100 \%$$

$$P = \frac{117}{160} \times 100 \%$$

$$P = 73,1\%$$

From all the descriptions and calculation above, it can be seen that the rubric assessment on feasibility of from BSNP are not entirely fulfilled, it is occupied only at 73,1%. The lowest score items are in generic structure and linguistic features item. Most of the reading activities in the textbook content do not provide any explanation on these two items. It is recorded that only in chapter 5, the related information is given.

## CONCLUSION AND SUGGESTION

Based on the analysis, it can be concluded that not all the cognitive process dimension on the Revised Bloom Taxonomy have been covered in the textbook’s reading activity. The cognitive levels that are found are *Remember*, *Understand* and *Evaluate*, while the three others – *Apply*, *Analyse*, and *Create* – are not found. It means that only 3 out of 6 cognitive processes are already applied in the reading exercises. It indicates that the reading exercises in the textbook are not arranged in a hierarchical order, since three levels in between are missing. It also means that the textbook promotes more Lower Order Thinking (LOT) skill than Higher Order Thinking (HOT) skill.

Moreover, it is also recorded that there are two knowledge dimensions which are reflected in the reading exercises. They are *factual knowledge* and *Metacognitive Knowledge*. Meanwhile the other two knowledge of dimensions - *Conceptual* and *Procedural*

The analysis showed that the total score is 117, whereas the total score they are all got perfect score is 160. Thus, we can calculate this result using the following formula:

Knowledge -are not found at all in the reading exercises. It implies that the knowledge dimensions offered in the reading material are not varied.

The result of the analysis using the rubric assessment of feasibility of content from BSNP showed that the reading materials in the textbook are not well-developed. The reading exercises presented in the textbook is not good enough to develop student’s reading skill. The reading section doesn’t give any information that the students need to identify or produce certain text. Moreover, each chapter of the book provides only one text. It is regarded less sufficient, since students need to be exposed to many texts in order to enrich their knowledge on text types. Every text type has its own communicative or social function. Students need to know exactly which type that represents his/her intention, so that they can use the appropriate text, both spoken or written, in their daily communication.

Based on the findings, it is worth presenting some suggestions that can be considered as the contribution of the study to the teaching of English.

In deciding which tetxbook that can be used in the classroom teaching, a teacher should consider whether the textbook is compatible with the current curriculum, and whether it provides various exercises and cover all the six cognitive levels of Revised Bloom Taxonomy. The higher the class level, more exercises should be in the Higher Order Thinking Skill, so that they can always improve their cognitive skills from the previous ones.

A teacher should not merely keep depending on textbook. Teacher should



always be creative in developing the materials on the textbook. It would be better if teacher also make use of the other sources and other authentic material, such as newspaper, magazine, etc. He/she can also use the Revised Bloom Taxonomy to construct classroom instructions which can stimulate students' cognitive skill.

As for publisher, in creating and developing English textbook, years of study are needed in order to create what their students need and their dynamic ways of learning. Therefore, they have to keep regenerating their ideas and move with the curriculums to evaluate the textbooks frameworks which are very crucial. Also, they have to arrange exercises which are more varied and enable students to promote their cognitive thinking skill to a higher level.

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