

COGNITIVE DOMAIN OF ENGLISH TEXTBOOK FOR GRADE 5 ELEMENTARY SCHOOL IN MALAYSIA

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ABSTRACT

One of the aspects that is implemented in the textbook is cognitive skill which deals with intellectual or thinking ability and guide the students to have knowledges and be active in the classroom. This paper focuses on identifying the type and most dominant cognitive domain reflected in textbook with the aims to know the type and find out most dominant cognitive domain. The type of this paper is qualitative research and the research design is descriptive qualitative. The subject is English textbook for five graders of elementary school entitled "English Year 5" which is published by Malaysia ministry of education with *KSSR (Kurikulum Standard Sekolah Rendah)* year 5 as the curriculum. The researcher analyzed the instructional activities based on the revised Bloom's taxonomy by Anderson (2001). The result reveals that the total number of the instructional activities is 235. The type of cognitives domain are creating with 71, understanding is 55, remembering shows 41, applying shows 34, analyzing shows 20 and the last domain is evaluating that has 14 activities. Creating, the most cognitive domain shows that the authors want the students be able to put elements together to form a coherent or functional whole, that is reorganizing elements into a new pattern to communicate relate their ideas accurately means the authors facilitate students to create ideas in order to communicate to other people. The authors use communicative approach to write the textbook that its guides the teachers and students to become more active, communicative and collaborative in the class.

Keywords: *Cognitive domain taxonomy, Words, Instructional activities, Types of Cognitives.*

Introduction

Textbook guides teachers and students in teaching learning process to be active and communicative activities. It is not easy for the teachers to choose the textbook; there must be many qualifications or criteria to make a qualified textbook. Teacher has responsibility to choose a textbook in order to achieve their students' knowledge.

Teaching materials can be developed from sources, one of them is textbook. Besides, it also needs special consideration toward curriculum that is applied. The adjustment of textbook to the curriculum should be conducted because English teachers tend to show a strong reliance on textbook usage. Remembering this, a minister makes some of curriculum as a basic of the textbook to be taught in the school. The textbook that the researcher analyze is a textbook for grade 5 that used in all of elementary school in Malaysia. The curriculum in Malaysia based on the school-based assessment and 21st century skills are incorporated appropriate and relevant to the lesson. It focuses on the students to be more active and cooperative in the teaching learning process. Student book is a book for students to be learn English, but no one can guarantee that the material of the student book is relevant to the *KSSR (Kurikulum standard sekolah rendah)* which is Malaysian minister of education given to the school. Moreover, Malaysian uses 21st century curriculum that implemented creativity, critical-thinking, collaboration and communication to the students.



One of the aspects that, implemented in the student book is cognitive skill which deals with intellectual or thinking ability. The other aspects are affective and psychomotor skills that deal with feelings, attitudes, interest, preferences, values, and emotions. A good textbook should have cognitive skill aspect to guide the students in teaching learning process. The cognitive domain guides the students to have more knowledge and active in the classroom. Besides that, cognitive involves intellectual activities, problem solving, and critical thinking. That is have to relevance to the 21st curriculum goal as a curriculum that is implemented in Malaysia. Unfortunately, some students get confused with the teaching learning process.

Cognitive domain has many levels. They are remembering, understanding, applying, analyzing, evaluating and creating. In each levels, students have to implement some skills to make them more creative, communicative, critical thinking and collaborative. The important of cognitive aspect is to develop the students' knowledge especially students who learn English as their second language in Malaysia. Malaysian students have to implement the different levels of cognitive domain than the other english foreign language (EFL) countries. Although, some teachers' instruction just focused on helping students to attain cognitive mastery of some content of subject area.

Based on the background of the study, the writer identifies the following problems that influence textbook and curriculum, they are: choosing the english textbook as the material is not easy for the teachers, no one can guarantee that the material of the students book is relevant to the curriculum and it is hard for students to learn English as the Second language.

The formulation of the problem are what is the type of cognitive domain reflected in the student book entitled "English Year 5" for grade 5 Elementary School? And what is the most dominant type of cognitive domain reflected in the student book entitled "English Year 5" for grade 5 Elementary School?

The result of the study is expected to be able to give contribution for in theoretically, the result of this study can be used as the reference by the students of Tidar University. Especially, students in English department in Teaching English for Foreign Language (TEFL) should to know the implemented of 21st curriculum as a curriculum that taught English as second language. In practically, the result of this study can be used as the reference by the Indonesian Educator to know the differences taught English in foreign and second language. Therefore, they can reflect on themselves and they can improve their teaching skill. In pedagogically, the result of this study may help English teaching learning process in Malaysia. Moreover, this research may help English teaching learning process in Indonesia as a reference.

Huchiman and Torres in Xavier (2017:33) describe that textbook is an important mean of satisfying the range of needs that emerge from the classroom and its wider context. Moreover, Garinger (2002) states that a textbook can serve different purposes for teachers as a core resource, as a source of supplemental material, as an inspiration for classroom activities, even as the curriculum itself.



Curriculum is a concept which was first dealt with as the list of course (Henson: 2003). Rogers in Richard (2001:39) comments that Curriculum is a far broader concept. Curriculum is all those activities in which children engage under the auspices of the school. This includes that not only what pupils learn, but how they learn it, how teacher help them learn, using what supporting materials, styles and methods of assessment, and in what kind in facilities.

Alismail and McGuire (2015) says that 21st curriculum is allow students the creativity and use the power of technology to support necessary skills and learn in unique ways. P21 (www.P21.org) says that students should have some aspects in their learning process, as known learning and innovation skills, there are Critical Thinking, Communication, Collaboration, Creativity (4C). Walser (2008) says that most lists of 21st century skills include 4C needed to make the best use of rapidly changing technologies; then called “soft skills” that computers cannot provide, like creativity, and those considered vital to working and living in an increasingly complex, rapidly changing global society.

The *Dokumen Standard Kurikulum Dan Pentaksiran (DSKP)* comprises the content standards and learning standards. Content Standards specify the essential knowledge, skills and understandings that pupils need to acquire by the end of Year 6. Learning Standards describe in detail the degree or quality of proficiency that pupils need to acquire in relation to the Content Standards for a particular year.

Bloom (1956:7) decides the three parts major of domain they are affective, cognitive and psychomotor domain. The cognitive domain objectives deal with the recall or recognition of knowledge and the development of intellectual abilities and skills.

Bloom et al. (1956) state the learning level of cognitive domain are: knowledge, comprehension, application, analysis, synthesis, and evaluation. Besides that, Anderson (2001), he revised the six of cognitive bloom’s from noun to verb forms. The knowledge become remember and comprehension become understand. Application become apply. The categories from the revised cognitive domain are: remember, understand, apply, analyze, evaluate, and create. After that, he slightly rearranging them. Krathwohl (2002) revised the dimension of the name revised Bloom's taxonomy to fit the more outcome-focused modern education objectives, and the order of the highest two levels.

Gronlund (2004) describes useful instructional objectives as those written in terms of the intended outcomes of instruction. McMillan (2004) finds the taxonomy to be valuable to today’s teachers because it provides a comprehensible list of possible learning outcomes with action verbs that operationalize learning targets. Well-stated objectives can provide a description of the intended learning outcomes in performance terms – that is, they identify verbs that describe observable behaviors students demonstrate to show acquisition of the knowledge, understanding or skill described by the objective (Gronlund: 2003).

‘English Year 5’ is English book that Malaysian minister published for students in five grade elementary school. This book used 21th century curriculum. This is focus on students to do more active and cooperative in the teaching learning process. A good textbook have some



aspects in their materials. Some of them cognitive, affective and psychomotor domain in their material.

The cognitive aspect guides the students to have more knowledge and active in the classroom. Cognitive domain has six categories, those are remember, understand, apply, analyze, evaluate and create. Cognitive assessment involves intellectual activities, problem solving, and critical thinking. The important of cognitive aspect to develop the students' knowledge especially in English textbook. Although, some teacher's instruction just focused on helping students to attain cognitive mastery of some content of subject area.

From all of about theories, the researcher through this kind of research tries to know the type and the most dominant cognitive domain based revised Bloom's taxonomy in the student book entitled "English Year 5" for grade 5 Elementary School.

Methodology

The type of this research is qualitative research. The researcher implemented descriptive qualitative content analysis as the research design and analyzed the textbook in the cognitive domain categories based on the revised Bloom's taxonomy by Anderson.

The student book entitled "English Year 5" published on 2015 by Dewan Bahasa dan Pustaka Kuala Lumpur edited by Mariati Josepha binti Mustafa and Mazfarina binti Marzuki and uses in Sekolah Kebangsaan Bandar Sungai Buaya which is located in Bandar Sungai Buaya, Rawang, Selangor Malaysia.

The subject of this research is English student book for five graders of elementary school entitled "English Year 5" which is published by Malaysia ministry of education. The writers of this book are the book writer team from Malaysia ministry of education, Dewan Bahasa dan Pustaka Kuala Lumpur 2015 and the panel of writers. This book written by KSSR year 5. The textbook consists of 15 units and 154 pages.

The researcher collected the data using documentation technique. Documentation is the technique which is used to collect data and information as objectives as possible. The unit of this analysis is words because the researcher analyzed the instructional objectives that is form of verb.

In this research, the process of analyzing data uses data analysis table of cognitive dimensions of revised Bloom's taxonomy by Anderson (2001):

1. Identify the verbs of objectives in the textbook. (Anderson and Krathwool 2001)
2. Analyze the verbs of objectives based on the learning standard and the cognitive domain categories. (Anderson 2001)
3. Classify the verbs of objectives according cognitive level of revised Bloom's taxonomy in order to know the level they cover: remembering (C1), understanding (C2), applying (C3), analyzing (C4), evaluating (C5), or creating (C6). The data will analyze in each unit. (Anderson 2001)
4. Calculate the number of verbs of objectives included in each category.



5. Calculate the data will be given by using the formulation:

$$P : \frac{\sum x}{N} \times 100\%$$

Where,

P : percentage of instructional activities in cognitive domain categories

$\sum x$: The total of criteria points which were met in the textbook for each levels.

N : The total of criteria points in each unit.

6. Interpret the result of data analysis.

Findings and Discussion

Table 1: The Result of Data Analysis of Cognitive Domain used in The Textbook 'English Year 5'

No	Unit (Theme)	Cognitive Domain					
		C1	C2	C3	C4	C5	C6
1	Family Day	11.1 %	27.8 %	22.2 %	16.7 %	5.5%	16.7%
2	Saving, Spending, and Sharing	5%	20%	15%	25%	10%	25%
3	Superheroes	5.3%	26.3 %	21.0 5%	21.0 5%	-	26.3%
4	Malaysian Legends	11.8 %	41.2 %	17.6 %	-	5.9%	23.5%
5	Moving Forward	26.7 %	26.7 %	6.6%	13.3 %	-	26.7%
6	Self-Protection	17.6 %	29.5 %	17.6 %	-	11.8 %	23.5%
7	The King's Decision	28.6 %	14.3 %	7.1%	14.3 %	-	35.7%
8	Fascinating Sabah and Sarawak	25%	31.2 5%	6.25 %	-	6.25 %	31.25%
9	Space Exploration	21.4 %	28.6 %	14.3 %	-	-	35.7%
10	The Peach Boy	30.7 6%	15.3 8%	-	7.7%	15.3 8%	30.76%
11	Natural Disaster	20%	-	26.6 %	6.7%	6.7%	40%



1 2	Unique Buildings	20%	26.7 %	13.3 %	-	6.7%	33.3%
1 3	Lost and Found	18.1 8%	9.09 %	18.1 8%	9.09 %	18.1 8%	27.28%
1 4	Adventures Sport	6.7%	20%	13.3 %	6.7%	6.7%	46.6%
1 5	Real-life Heroes	25%	25%	12.5 %	-	-	37.5%
	Total : 235	41	55	34	20	14	71
	Percentage : 100%	17.4 4%	23.4 %	14.5 %	8.5%	5.95 %	30.21%

a. Remembering (C1)

Remembering is relevant to the knowledge from long-term memory. The associated cognitive processes of remembering are recognizing and recalling. Recognizing or identifying involves locating knowledge in long-term memory that is consistent with presented material then recalling or retrieving relevant knowledge from long-term memory. The examples of the remembering are define, recall, relate, repeat, tell, state, list, etc.

As a result, remembering domain consists of 41 of 235 activities that has shown in the analysis table result. It shows 17.44% activities suppose the students to recognizing and recalling the material in the textbook. Take an example of the instructional activity U1.1 “Let’s Talk” concerns with the learning standard 1.1.4 that says students be able to speak on related topics with guidance. It belongs to remembering domain because it demands students and teacher to look at the picture in the textbook related to the topic in the unit. The teacher explains the material then the students remember about the topic. After that, the students talk about the material based on their knowledges that they remember with the guidance of the teacher. This activity is recognizing the students’ memory to their knowledge.

b. Understanding (C2)

Understanding makes the students able to construct meaning from instructional messages including oral, written, and graphic communications, and material that presented the teacher. The example of the understanding are ask, compare, explain, predict, paraphrase, etc.

The table of data analysis that has shown 55 of 235 activities of creating belongs to understanding level. It shows that 23.4% activities suppose the student to grasp the meaning of the material, translate the material and interpret them to the other form. Take an example of the instructional activity U5.4 “Ask and answer questions based on the information above”, it concerns with the learning standards 1.1.4 and 1.3.1 that says students are able to speak on related topics with guidance and listen to and demonstrate understanding of oral texts by: (a) asking and answering questions. This belongs to



understanding domain because it commands students to read and understand what the meaning of the information in the text then answer questions based on their understanding. This activity demands students to interpret meaning. Students are able to convert information from one form (text) of representation to another (questions).

c. Applying (C3)

Applying involves using procedures to perform exercise or solve problems and is closely linked with Procedural Knowledge. The associated cognitive processes of applying are executing or carrying out and implementing or using. The example of the applying are apply, collect, construct, use, write, etc.

There are 34 of 235 activities or 14.5% in the data analysis for applying. That supposes the students to apply their knowledge to the familiar form, implement their knowledge in the appropriate situation. Take an example of the instructional activity U1.12 "Rewrite the sentence", it concerns with the learning standard 3.2.3 that says students are able to use punctuation correctly. It belongs applying domain because it demands student to rewrite sentences and apply the theory of a full stop, comma or a question mark that the teacher explains before. This activity is executing associated because students apply a theory to a familiar task.

d. Analyzing (C4)

Analyzing involves breaking material into its constituent part and determining how the parts are related to each other and to an overall structure. Three associated of cognitive processes in analyzing are differentiating, organizing, and attributing. The example of the analyzing are analyze, compare, conclude, debate, devise, outline, select, etc.

Analyzing of cognitive domain has 20 of 235 activities with percentage of 8.5% that has shown in the analysis result table. Take an example of the instructional activity U2.14 "Let's read and write", it concerns with the learning standards 3.2.4 and 3.1.1 that says students are able to spell words applying spelling rules and able to read in neat legible print with correct spelling: sentences. It belongs analyzing domain because it demands students to analyze the form of application then fill out them based on the dialogues in the book and the guidance of the teacher. This activity involves to the organizing associated that determining how elements fit or function within a structure.

e. Evaluating (C5)

Evaluating defined as making judgements based on criteria and standard. Two associated of cognitive processes in evaluating are checking and critiquing. The example of the evaluating are argue, contrast, decide, evaluate, reconstruct, revise, etc.

Evaluating has 14 of 235 activities with percentage of 5.95% has shown in the analysis result table. Take an example of the instructional activity U13.11 "Let's read" concerns



with the learning standard 4.2.1 says that students be able to respond to literary texts: (a) characters (c) values. It belongs evaluating domain because it demands students to read the story about ‘The Lost Boy’ then give a respond and evaluate to the values and their characters. This activity involves to critiquing or judging because students detects the story of ‘The Lost Boy’ that has external consistency and judges the appropriateness of the text that they read.

f. Creating (C6)

Creating involves putting elements together to form a coherent or functional whole that is reorganizing elements into a new pattern or structure. The associated of the creating are generating, planning, and producing.

Creating has 71 of 235 activities with percentage of 30.21% has shown in the analysis result table. Take an example of the instructional activity U14.15 “Create a ‘Wanted’ poster of Captain Hook”, it concerns with the learning standard 4.2.1 that says students are able to respond to literary texts: (a) characters (c) values. It belongs creating domain because it demands students to create a ‘Wanted’ poster for Captain Hook based the story that they read before. This activity is producing associated that inventing or make a product.

Based on the data analysis toward ‘English Year 5’, the type cognitive domain that reflected in the textbook is creating as the higher cognitive domain that found 71 activities of 235 ones. It appeared the most frequently or 30.21%. Then, 55 of 235 activities are understanding level that has percentage of 23.4%. Remembering is the third rank with 41 of 235 activities, it shows 17.44%. There are 34 of 235 activities or 14.5% in the data analysis for applying. Analyzing of cognitive domain has 20 of 235 activities with 8.5%. In the last rank, evaluating that has 14 of 235 activities with percentage of 5.95%.

There is tendency that the type of cognitive domain are creating, understanding, remembering, applying, analyzing and evaluating. The most dominant dimensions of the cognitive of revised Bloom’s taxonomy in the textbook is creating. The benefit of conducting the research is to know the cognitive domains that applied in the textbook is same as the 21st curriculum made by the government. It will be impact to the students and teachers in the teaching learning process and how the learn, taught and study in each materials. After found that the most dominant is creating, it means the writers of the textbook want the students to reorganizing materials into a new pattern and makes them to become more active and communicative use their knowledges. The writers facilitate the users of textbook or students to be able to create ideas in order to communicate to other people. Based on this finding, it shows that the writers of the textbook use communicative approach to write the textbook. Communicative teaching approach guides the teachers and students to become more active, communicative and collaborative in the class.



Conclusion and Suggestion

Based on the data analysis, the types of cognitive domain in the textbook entitled 'English Year 5' with the learning standard KSSR are creating as the higher rank that found 71 activities of 235 ones. Then, 55 of 235 activities are understanding. Remembering is the third rank with 41 of 235 activities, there are 34 of 235 activities in the data analysis for applying. Analyzing of cognitive domain has 20 of 235 activities. In the last rank, evaluating that has 14 of 235 activities. According to those findings, the researcher concluded that the textbook 'English Year 5' has dominant on the creating level in the cognitive domain and be able to fulfill the purposes of guiding the students to use cognitive skills to create something with their creativity which should be achieved by the students according to the learning standards. The researcher suggests to the writers should develop and improve the materials in term of the cognitive domain categories in each unit in the textbook because the percentages of cognitive domain in each units did not cover enough the materials which help the students to achieve their English ability. The researcher suggests to the book user to look for other sources the materials to complete the materials. If the book users make this book as the main of learning, they should look for or complement source in order to get the complete explanation about the materials in the textbook. Then, it suggests to the government should give the teacher and students enough materials to learn and evaluation the teaching and learning process in the school. They can use the other research method in their study or develop the research method which the researcher did.

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