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## A Portrait of English Secondary Teachers in Indonesia in Exploiting Questions Referring to Bloom's Taxonomy

**Dahnilsyah**

*Faculty of Education, Universitas Riau, Pekanbaru, 28293, Indonesia*

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### ABSTRACT

This study sheds light on the skill of three secondary school English teachers in Indonesia in making use of questions referring to the Bloom's Taxonomy to keep students engaged in the course of the lesson. It adopts qualitative content analysis where the stages of decontextualization, recontextualization, categorization, and compilation were conducted. Three YouTube videos which provide the teaching performance of these three teachers had been the data collected in this study. From the findings, it discovers that these three English teachers still preferred applying the lower-order thinking questions to higher-order thinking questions which had been the type of teachers in Asia, including Indonesia. Consequently, students did not get ample chance to develop their critical thinking skills. This study therefore highly recommends that teachers need to get much exposure to the higher-order thinking questions as it is one of the demanding skills needed in the 21<sup>st</sup> century.

## 1. Introduction

Albert Einstein, one of the legendary scientists in the 21<sup>st</sup> century has a well-known wise word: "The most important thing is to never stop asking the question". Questioning and Answering by nature is part of our daily life. For those who have dedicated and devoted themselves to the educational sphere, raising questions has been their routines. It is an accepted fact that questioning plays a paramount role in the way teachers control a classroom, motivate students to actively participate in the course of the lesson, and embolden engagement and develop understanding. Amid an instructional process, questioning not only serves to help students activate their linguistic cognition but also allows teachers to measure their students' comprehension of a certain notion. Possessing the capability of presenting effective questions is a prerequisite to eliciting students to produce pertinent answers and of distinction. In a nutshell, the enhancement of the thinking process is determined by the questions (Paul & Elder, 2000).

\* Corresponding author.

E-mail: [dahnilsyah@lecturer.unri.ac.id](mailto:dahnilsyah@lecturer.unri.ac.id)

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Giving questions are also perceived as an effective way of developing students' critical thinking which is one of the keys to gaining success in the competitive era of the 21<sup>st</sup>-century. Questions designed by teachers, therefore, should not be merely focused on measuring students' knowledge and comprehension which refers to the notion of rote learning but also enable to construct and encourage the students' complex thinking capability to develop. Additionally, having adequate questioning skills is included as a brilliant and significant aspect of teaching. Eloquent questions allow students to have ample chance of exploring further considerate responses. Various studies in the education field which provide accounts for the significant role of questioning strategy in the classroom had been conducted. (Almeida, et al., 2009; Chin & Osborne, 2008; College & Olde 2003).

The prominent figure dealing with question strategies in the course of teaching and learning process is an American educational psychologist, Benjamin Bloom. Bloom (1956) proposed the so-called Bloom's Taxonomy which emphasizes the sequential categories of educational goals: knowledge, comprehension, application, analysis, synthesis, and evaluation. These six components are regarded as vibrant resources for designing questions. Following is the illustration of the six categories which can be incorporated into questions and are perceived as an effective way of stimulating students' critical thinking and help them be active in the classroom:

CRITICAL THINKING SKILLS				
<b>1</b> Knowledge  Identification and recall of information	define fill in the blank list identify	label locate match memorize	name recall spell	state tell underline
	Who _____ ? What _____ ? Where _____ ? When _____ ?		How _____ ? Describe _____ ? What is _____ ?	
<b>2</b> Comprehension  Organization and selection of facts and ideas	convert describe explain	interpret paraphrase put in order	restate retell in your own words rewrite	summarize trace translate
	Re-tell _____ in your own words. What is the main idea of _____?		What differences exist between _____ ? Can you write a brief outline?	
<b>3</b> Application  Use of facts, rules, and principles	apply compute conclude construct	demonstrate determine draw find out	give an example illustrate make operate	show solve state a rule or principle use
	How is _____ an example of _____ ? How is _____ related to _____ ? Why is _____ significant?		Do you know of another instance where _____ ? Could this have happened in _____ ?	
<b>4</b> Analysis  Separating a whole into component parts	analyze categorize classify compare	contrast debate deduct determine the factors	diagram differentiate dissect distinguish	examine infer specify
	What are the parts or features of _____ ? Classify _____ according to _____. Outline/diagram/web/map _____.		How does _____ compare/contrast with _____ ? What evidence can you present for _____ ?	
<b>5</b> Synthesis  Combining ideas to form a new whole	change combine compose construct create design	find an unusual way formulate generate invent originate plan	predict pretend produce rearrange reconstruct reorganize	revise suggest suppose visualize write
	What would you predict/infer from _____ ? What ideas can you add to _____ ? How would you create/design a new _____ ?		What solutions would you suggest for _____ ? What might happen if you combined _____ with _____ ?	
<b>6</b> Evaluation  Developing opinions, judgements, or decisions	appraise choose compare conclude	decide defend evaluate give your opinion	judge justify prioritize rank	rate select support value
	Do you agree that _____ ? Explain. What do you think about _____ ? What is most important?		Prioritize _____ according to _____ ? How would you decide about _____ ? What criteria would you use to assess _____ ?	

Figure 1. Complete Accounts of the Elements of Bloom's Taxonomy (Bloom, 1956)

The above figure 1 implies that in the course of the instructional process, teachers are required to apply varying questions. Bloom has purposely divided these six components in such a well-structured and systematic way. He classifies the questions related to knowledge, comprehension, and application as lower-order thinking questions, and conversely, the categories of analysis, synthesis, and evaluation are regarded as higher-order thinking questions. The above figure reveals that questions related to knowledge are largely influenced by anything related to extracting the factual information and to diagnose the students' prior knowledge. Meanwhile, comprehension refers to the questions where the class is focused on the activities eliciting students' ability in describing, explaining, interpreting, restating, and summarizing to name a few.

Owing to the steady changes in education development, this original taxonomy has been subject to revisions. The considerable change is placed in the six major categories which have been shifted from the nouns to verbs. Following is the figure of the dissimilarity between these two taxonomies:

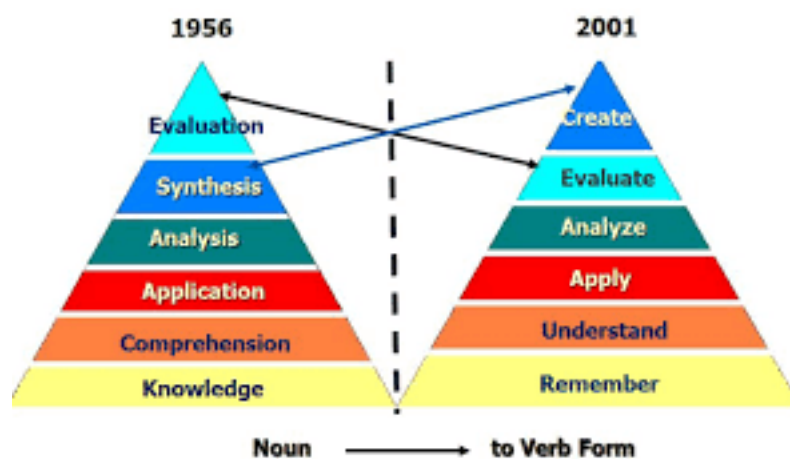


Figure 2. The Differences between Bloom Taxonomy and the Revised Edition (Anderson and Krathwohl, 2001).

From figure 2, we can learn that the underlying differences between the original bloom taxonomy lie in the aspect of static notion which has been converted to the dynamic concept of the thinking process. In this respect, Anderson and Krathwohl (2001) provide the revised taxonomy which takes into account the paramount role of thinking as an active process and therefore should be viewed as an application rather than simply a concept. Additionally, the word "application", "analysis", "knowledge", needed alterations since they are products of reasoning. Consequently, the reforms were made due to the improperness to explain the thinking category and the words "apply", "analyse", and "remember" were used instead. Meanwhile, the words "comprehension" and "synthesis" were respectively retitled to "understand" and "create" to manifest the essence of thinking.

Teachers who enable to provide good questions usually help students contemplate on their analysis and improve their ability to effectively express their reasoning.

On the other hand, those whose limited competence in designing questions provide little significant contribution if any for the development of students' academic progress. Creating effective questions is a complex undertaking indeed as it is not an easy stage which can be programmed shortly. So much is at stake that knowledge, skills, and experiences that teachers possess are still insufficient, particularly in crafting effective questions (Atika et al., 2013).

In Indonesia, most teachers seemed to have encountered difficulty in designing effective questions. Many factors contribute to this deficiency, among others are poorly qualified teaching skill, lack of intrinsic motivation to develop their competence, heavy workload, unconducive atmosphere to develop innovations and creativity, and lack of awareness of the importance of questions in the course of the instructional process (Sulistiyo, 2015). Consequently, most teachers do not take in to account whether or not their questions bring impact on the students' motivation and have an effect on the creativity in articulating and developing their ideas. Furthermore, in many cases, Teachers who deliberately ignore the efficacy of questions tend to rely on the lower-order, convergent questions which merely focus on the structuring questions and factual questions which measure students' remembrance or prior knowledge (Ragawanti, 2009).

Secondary levels are a crucial stage in the education unit as it is the phase where both lower and upper secondary students are classified as adolescents who typically like providing new ideas and do need to seek their selves-identity. This is a crucial period where students at the age of 12 -17 enable to effectively construct their cognition. Furthermore, they usually possess the capability of hypothetically thinking of something in a way that creativity, innovation, and complex reasoning develop. Students at the adolescence period typically enable them to comprehend the theoretical concepts and begin to explore them. The ability of teachers to provide effective questions in secondary schools is, therefore, an interesting thing to examine.

This study sheds light on the capability of some secondary school teachers in exploiting questions whose background knowledge in English language teaching. It seeks to explore what types or levels of questions dominated the classroom and how the teachers enabled to apply effective questioning strategies by making use of both lower-order thinking and higher-order thinking questions.

## **2. Methodology**

This study adopts the qualitative content analysis approach where the central focus is on the observation of a YouTube video to examine the teachers' competence in applying the effective questions in the course of the lesson. Participants of this study are 3 secondary teachers of lower and upper secondary schools. They handled English language lessons

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### ***Data Collection Technique***

The data of this study are 3 YouTube videos which portrait the real situation of the teaching and learning process. The gathered data are then collected into a written text. Morse & Richards (2002) proposed that the verbal data are required to be properly established to the referenced method so that the comprehension of the phenomena being investigated can identify.

### ***Data Analysis Technique***

There are four stages involved in analysing this study which are the sequences of qualitative content analysis. The stages are as follows:

#### **Stage 1: Decontextualization**

Close acquaintance with the data, in this respect, the questions exploited by the teachers are the essential factor in this study where the whole interaction between the teacher and the students were observed. Each identified questions were labelled with a code, which should be comprehended in connection with the context (Berg, 2001).

#### **Stage 2: The recontextualisation**

In this study, after the examined elements in the video had been discovered, a thorough examination was conducted to measure whether all aspects of the contents had been covered to meet the objectives of the research ( Burnard, 1991). Having deeply involved with the data, all components appeared to be of importance. Nevertheless, the distancing process was a prerequisite to do so that unnecessary accounts which were irrelevant to the objective of the study could be avoided.

#### **Stage 3: Categorization**

Before starting the categorization process, the extended examined elements were shortened. This indicates that some parts of the contents in the video were reduced without the absence of the essential units (Graneheim & Lundman, 2004). The profundity of the investigated elements of the video influence the level at which the examination process was carried out.

#### **Stage 4: The Compilation**

Once the establishment of categorization was finished, the analysis and transcribing process started. The main feature of the qualitative analysing method in this respect was observed when the connection to the analysing process was conducted and adapted to the findings. Briefly, this was the stage on how the exploration seems logic and converted experiences into cognizance

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### 3. Results and Discussion

After observing and examining the questions adopted by teachers in the course of the lesson in the YouTube video, there are interesting findings have been discovered.

Table 1. Type of questions exploited by teachers referring to the Bloom Taxonomy:

No	Subject	School	Type of Questions	Target Audience	Questions
1.	English	Upper Secondary (SMA)	Low-Order: 8 High- order: 1	All	Who is absent today? Are you O.K. today? Happy? What is the passive voice in Bahasa Indonesia? Give me examples of active in Bahasa? What's the structure of the passive voice? What verbs do we use in Passive Voice? Do you know verbs to be in passive voices? Pecel using is or are? What is the verb 3 for the word "sing"?
2.	English	Lower Secondary (SMP)	Low-Order: 19 High – Order: 1	All	What's the title of this story? DO you agree with Dalita's answer? Can you please write down the title on the board? When and where did this story happen? Who is the main character of the story? What happened to the main character according to the story? Revo, Can you repeat Najwa's answer? What is the generic structure of the story? DO you agree with fair's answer? Can you please write down the generic structures of the story? What're the social functions of the story? What's the moral lesson of the story?

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					<p>Do you agree with Anita's answer?</p> <p>Anything else?</p> <p>Anyone can help me to write down the social functions on the board?</p> <p>Is there any opinion?</p> <p>How many stories did you find?</p> <p>What is the moral lesson of the story?</p> <p>Are there any other opinions?</p> <p>What's the social function of the story?</p> <p>How many moral lessons do we have?</p> <p>Can you please write down on the board?</p> <p>How many generics structures do you find in this story?</p>
3.	English	Upper Secondary Level (SMK)	Low-Order: 4 Higher-Order : 3	All	<p>What is deforestation?</p> <p>This happens in our coun....?</p> <p>How about this picture?</p> <p>Exposition text? What is the exposition text?</p> <p>What do you think about the general text?</p> <p>Which one is the general text?</p> <p>Do you know the structure of the present tense?</p> <p>What is the key to the present tense?</p> <p>Who can give me a verb of present tense?</p>

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This table indicates that all of the teachers appeared to tend to have preferences in applying the lower order thinking questions rather than higher-order thinking questions. Below are the detailed accounts of findings which have been discovered from the three videos when these three teachers exploit the questions during the instructional process:

#### **Teacher no 1:**

This teacher taught about the use of passive voice. Unfortunately, In the course of the instructional process, she merely depended on the low order questions. At the beginning of the class, she just picked up the roll call and had inquires into the names of students who could not attend the class and then asked about students' mood by raising questions "Who is absent today?" and "Are you O.K. today?".

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Questions, such as “What is the passive voice in Bahasa Indonesia ?”, “Give me examples of active in Bahasa?” reveal that this teacher prefers making use of questions merely to construct her students’ prior knowledge and remembrance. When referring to the Bloom’s taxonomy, low order thinking questions dominated her where the primary focus was low-order thinking questions. As we can see questions in the above table, she is just interested in constructing the students’ remembering and understanding capability about the prior knowledge. Furthermore, instead of asking the students individually or targeting the questions to a certain group of students, she just invited the class to voluntarily answer the questions.

### **Teacher number 2 :**

Unlike teacher number 1, this teacher enabled to keep her students were engaged in the lesson by asking many questions. She handled a lesson on a narrative text by providing stories and elicited students' involvement by raising many questions. However, low-order questions which measure both her students' remembering and understanding were still apparent in this class. She exploited varied the question words: why, where, when, and how. Unfortunately, most of the answers were had been mentioned in the story. There was only one higher-order thinking question she gave in the form of a question "what is the moral lesson of the story?". Sadly, such a question seemed not challenging for students to answer since most of them quickly raised their hands and we're excited about answering the question. Interestingly, like teacher number 1, she also targeted the whole class to answer her question throughout the lesson.

### **Teacher number 3 :**

This teacher appeared to be strict which had led the class to be somewhat boring and the students felt awkward. She actually could control the class; however, her authoritative style had caused the students felt in an uncondusive atmosphere to engage themselves. All of the questions used in the course of the instructional process were intended to the whole class and the same as with the previous teachers, she also relied on lower-order thinking questions which examined her student's remembrance and prior knowledge. Interestingly, she could adopt the higher-order thinking questions, such as "what is deforestation"? "what is the key of the present tense" which enabled to construct her students' critical thinking but she did it in a very high tension which had made her students less confident to answer. Moreover, their poor command of English in the form of the language barrier in spoken English impeded them to answer.

From the findings, we have seen that all of the teachers still relied on the divergent questions which are categorized as lower-order thinking questions in Bloom’s Taxonomy. Conversely, higher-order thinking questions did not receive scholarly attention here. Such facts are typical of most teachers in Asia including in Indonesia which seem to be influenced with their cultural context as most questions provided by people in their daily life, including teachers simply to focus on the factual and remembrance which are thought as an essential factor to improve the students’ memory capability (Ulger, 2003; Gupta & Zorbaz, 2008; Aydemir & Ciftci, 2008). Additionally, the poor quality of teachers in teaching

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and learning, particularly in adopting strategies and techniques of effective questions also become the primary factor which has made difficult for them to make use of questions as one of the effective ways of engaging their students in the course of the instructional process (Paramartha et al., 2018; Sunggingwati & May 2013; Tyas et al., 2019).

#### 4. Conclusion

We have seen in this study that most teachers in Indonesia still find it difficult in promoting the higher thinking skill questions in the classroom. They seem to have been largely influenced by the notion of rote-learning. However, in this competitive and globalization era, and the enhancement of technology, the present skills require them to go beyond the memorization. It is therefore urgent and essential for students to possess analysis and critical thinking in sorting and filtering any information they have got going around in the world. The periodical and systematic training in the enhancement quality programs for teachers are therefore should be the top priority.

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