DEFINING THE COGNITIVE LEVELS IN BLOOM'S TAXONOMY THROUGH THE QURANIC LEVELS OF UNDERSTANDING - INITIAL PROGRESS OF DEVELOPING AN ISLAMIC CONCEPT EDUCATION

Syed Zainal Abidin
Universiti Tenaga Nasional, Jalan IKRAM-UNITEN, Kajang, Malaysia
Syed Kamarul Bahrin
Universiti Tenaga Nasional, Jalan IKRAM-UNITEN, Kajang, Malaysia
Nur Firdaus Abdul Razak
Universiti Tenaga Nasional, Jalan IKRAM-UNITEN, Kajang, Malaysia

ABSTRACT

The cognitive domain of a Bloom's taxonomy and the Quranic levels of understanding are elements in education that focus on the ability to think. However, there is currently no education system or method that is based on the Quranic levels of understanding due to the absence of proper definition. Therefore, this paper will provide general correlations between the cognitive levels and the Quranic levels of understanding so that the cognitive domain can be defined in term of Quranic levels of understanding. The authors anticipate that this initial progress can provide a catalyst for developing an Islamic Concept Education system.

Keywords: Quran, Outcome based education, Cognitive.

1. INTRODUCTION

Education is an element of teaching and learning that expands knowledge, skills and habits through certain systems or models of implementations to ensure a sustainable and balanced life for humans and the surrounding environments (Dewey, 1916/1944). This statement provides a strong emphasis on the aspect of education effectiveness, which is developed from systems or models of implementations.

Bloom's Taxonomy is a part of education system or model of implementations that provides educational objectives to improve education effectiveness by dividing the objectives into domains (Krathwohl, 1956). This education system or model of implementations was proposed in 1956 by a committee of educators chaired by Benjamin Bloom who also edited the first volume of the standard text, *Taxonomy of educational objectives: the classification of educational goals* (Bloom, 1969) There are three domains in the educational objectives i.e. cognitive, psychomotor and affective, but the cognitive domain, which focuses on the ability to think, is the foundation and the most important domain due to its direct affiliation with knowledge.

Cognitive constitutes the aspect of information processing, knowledge application and change in preferences. The developments of cognitive process can be normal or simulated, and aware or unaware. These processes can be analysed from various perspectives within various contexts such as linguistics, anaesthesia, neurology and psychiatry, psychology, philosophy, anthropology, systemic, and computer science (Von Eckardt, 1995). In specific to the Bloom's taxonomy interpretation, the cognitive domain focuses on knowledge, comprehension and critical thinking of a particular subject. These three aspects provide the core structure for the bloom levels in the

cognitive domain, ranging from the lowest to the highest bloom, and learning at the higher levels is dependent on having attained prerequisite knowledge and skills at lower levels (Orlich, et al. 2004).

Understanding the holy Qur'an also focuses on the ability to think (cognitive), and there are six levels of understanding that are based on various researches by Muslim scholars. The levels of understanding are also structured from the lowest to the highest level, which is similar to the bloom levels, but the elements that are constituted to understand the holy Quran are more holistic as compared to the cognitive domain in Bloom's Taxonomy. This is due to the comprehensive definition for each level of Quranic understanding. However, there is currently no education system or method that is based on these six levels due to the absence of proper definition. Therefore, this paper will provide general correlations between the cognitive levels and the Quranic levels of understanding so that the cognitive domain can be defined in term of the six Quranic levels of understanding. The initial progress consists of studies on the cognitive levels in Bloom's taxonomy and also studies on the basic Quranic levels of understanding that were defined by various Muslim scholars. Then, the definitions between these two studies are linked together to provide a new initiative in education system.

2. COGNITIVE DOMAIN

Knowledge and development of intellectual skills are the general elements in cognitive domain. These elements include the recollection or recognition of specific facts, procedural patterns and concepts that serve in the development of intellectual abilities and skills. There are six major levels in the cognitive domain, which can be thought of as levels of difficulties, and the following sections will provide the explanations of each level in the revised cognitive domain (Krathwohl, 2002; Noble, 2004)

2.1. Remembering

This category belongs in the lower level of cognitive domain and lowest among the six levels. The remembering category consists of memories that were obtained from previously learned information by recalling facts, terms, basic concepts and answers. Basically, the person has to input and store into the mind with appropriate information.

2.2. Understanding

This category also belongs in the lower level of cognitive domain and emphasises on the ability to demonstrate understanding of facts and ideas by organising, comparing, translating, interpreting, giving descriptions and stating the main ideas. The main elements in an understanding category must allow a person to state a problem in one's own term.

2.3. Applying

Applying category emphasises on the ability to use new knowledge or concept and solve the problems in new situations or unprompted use of an idea by applying acquired knowledge, facts, techniques and rules in a novel way. This category belongs in the mid level of cognitive domain.

2.4. Analysing

Analysing category focuses on the process of examine and break information into parts by identifying objectives or causes to create an organisational structure that is easily understood. The main purpose of an analysis category is to distinguish facts with inference. This category also belongs in the mid level of cognitive domain but higher than applying category because the person requires an understanding of the content and also the structural form of the subject.

2.5. Evaluating

Evaluating is a high level cognitive domain that highlights the process of presenting and defending opinions by producing judgments about information, validity of ideas or quality of work

based on a set of criteria. In essence, this category is concerned with the person ability to judge the value of a subject for a given purpose.

2.6. Creating

Creating is the highest level in cognitive domain that involves in compiling information together from diverse elements by combining elements in a new meaning or proposing alternative solutions. This category stresses on the person's creative actions and behaviours, with major emphasis on the formulation of new patterns or structures.

3. QURANIC LEVELS OF UNDERSTANDING

Understanding the holy Qur'an requires a vast knowledge and intellectual development that starts from basic vocal skills. There are various methods that were studied, researched and compiled by various Islamic scholars in the past few decades and centuries to understand the content of the holy Qur'an. Notable Islamic scholars in this particular area include At-Tabari, Ibn Kathir, Fakhr al-Din al-Razi, al-Qurtubi, Sayyid Quṭb and Prof Dr Haji Abdul Malik Karim Amarullah (HAMKA). The following sections will provide explanations on the levels in understanding the Qur'an that are compiled in ascending order and also based on findings from various Islamic scholars.

3.1. Tajwid

Tajwid is an Arabic word that has the meaning of 'correct pronunciation during recitation'. The word 'Tajwid' also has the linguistic meaning of 'proficiency' or 'doing something well'. It is a set of rules which dictate how the Qur'an should be read. Therefore, every letter or word of the Qur'an has its own characteristics during recitation and the rules that apply to those letters should be observed in different situations (D.A.A.A.F. al-Qaari). The main aspect in tajwid is 'pronounce'.

3.2. Tilawah

Tilawah is the act of reading the verses in Qur'an and no single word in English can convey its full meaning. The primary meaning is 'to follow' and the secondary meaning is 'to read'. This is mainly because the words follow each other in a systematic and meaningful sequence during recitation. If one word does not follow the other, or if the sequence and order is not observed, the meaning is ruined (Abd Da'ud et al.). The main aspect in tilawah is 'read'.

3.3. Tafsir

In technical language, the word tafsir is an act of providing surface or direct explanation, interpretation and commentary of the verses in Qur'an. Tafsir is also defined as understanding and uncovering the Will of Allah, which has been written in the Qur'anic text, through the medium of Arabic language and individual knowledge (Doi, 1997). The main aspect in tafsir is 'interpret'.

3.4. Tawassum

Tawassum is the ability to understand the occurrences of surrounding elements by observing the phenomena of the universe in order to extract information or knowledge from the occurrences (Khān, 2002). The root word of tawassum has a meaning of 'examine'. Therefore, the main aspect in tawassum is 'observe'.

3.5. Tafakkur

The root word of tafakkur has a meaning of 'ponderous' or 'deeper thought' but the term 'Tafakkur' has various meanings such as 'to think deeply', 'to meditate', 'to be thoughtful', 'contemplation', 'reflecting', 'considering', 'meditating' and 'thinking'. Tafakkur literally means to think on a subject deeply, systematically and in great detail. In this particular context, tafakkur signifies reflection, which distinguishes good and evil apart (Parray, 2012). The main aspect in tafakkur is 'reflect' or 'judge.

3.6. Tadabbur

The literal meaning of tadabbur is 'to manage and reflect on the end matters'. Tadabbur is the highest level of thinking that enforces full ability to reason and utilises logical enquiries to achieve a new meaning or concept by following the rules and regulations in Qur'an, which must be performed in accordance to the Arabic language understanding. The method can be applied according to the relationship between sentences in the Al-Qur'an or the relationship between the letters in the Qur'an (Al-Ahdal, Ta'limu Tadabburil Qur'anil Karim). The main aspect in tadabbur is 'implement'.

4.   DISCUSSION ON THE DEFINITIONS

Both, the cognitive domain in Bloom's Taxonomy and the Quranic levels of understanding underline the aspect of acquiring and expanding knowledge but the main approach in cognitive domain and Quranic levels of understanding are a little bit different. It can be seen that the cognitive domain in Bloom's Taxonomy prioritises on the objective of attaining the subject, which is in contrast with the Quranic levels of understanding that prioritises on the process of attaining the subject. This is due to the fact that the approach in Quranic levels of understanding starts from the most basic action in attaining knowledge. Nevertheless, the main objective of this paper is to define the cognitive levels in Bloom's Taxonomy through the Quranic levels of understanding. Therefore, the following statements and visual graphic in Figure 1 will provide the correlations between these two distinctive approaches.

In the first level, the cognitive domain emphasises on the ability to memorise whereas the Quranic levels of understanding emphasises on the ability to pronounce. Simply memorising certain information without being able to pronounce the letters, words or phrases properly is not sufficient because the overall information might be distorted or misunderstood. For example, the word 'quay', which is a structure on the shore of a harbour, is pronounced as 'ki' instead of 'kuey'. Similar example also exists in the holy Qur'an (chapter 11, verse 41) whereupon the word 'مجر' appears to be pronounced as 'maj raw' but the word is actually pronounced as 'maj ray'. The stored information might not be able to transmit correctly if this word is pronounced incorrectly. Therefore, proper pronunciation should be an integral part of memorising.

For the second level, the cognitive domain focuses on the ability to understand whereas the Quranic levels of understanding focuses on the ability to read. The ability to understand refers to the ability to state a problem in one's own term, which can only be done effectively if the problem statement is read appropriately. The meaning should be appropriately understood by reading the statement in a sequentially systematic and correct order. For example, the phrase 'the flux is cut by the coil' can also be read as 'the coil cuts the flux'. In this simple example, the former phrase is subjected to a 'passive' rule and the later phrase is subjected to an 'active' rule. Both phrases can be understood and identified as a similar phrase as long as the subject is identified appropriately. Similarly in the holy Qur'an, the punctuation 'لا' indicates that the recitation must be continued to prevent confusion or misunderstanding due to subject identification. Therefore, appropriate reading method should also be an integral part of understanding.

The third level has high divergence between the cognitive domain and the Quranic levels of understanding since the former is emphasising on 'applying' while the later is emphasising on 'interpreting'. In fact, the interpreting action is more relevant to the second level of cognitive domain. It should be noted that proper interpretation is crucial in producing good understanding of a specific subject, and should be an integral part of understanding.

The fourth level has some important similarity because of the observation aspect. However, 'tawassum' covers the element of extracting observed information only whereas 'analysing' covers the element of extracting and structuralising the observed information. Nevertheless, the scope of tawassum is very large and requires further studies by the author.

The divergence between the cognitive domain and the Quranic levels of understanding is more prominent in the fifth level because 'evaluating' is already involves in the process of presenting opinion while 'tafakkur' is still involves in the process of in depth assessment. Though, tafakkur is

quite similar to the fourth level of cognitive domain and the word 'reflect' has various interpretations and meanings in Arabic language.

The final level for cognitive domain and the Quranic levels of understanding are very similar in the aspect of formulating or achieving a new meaning or concept. However, the Quranic levels of understanding strictly emphasises on setting proper guidelines, rules and regulations to formulate or achieve a new meaning or concept. The Quranic levels of understanding also emphasises on the universal relationships that exist to formulate or achieve a new meaning or concept. Thus, universal relationships and relevant guidelines or rules or regulations should be an integral part of the highest level in cognitive domain.

Figure- 1. Initial correlation between cognitive domain and Quranic level of understanding
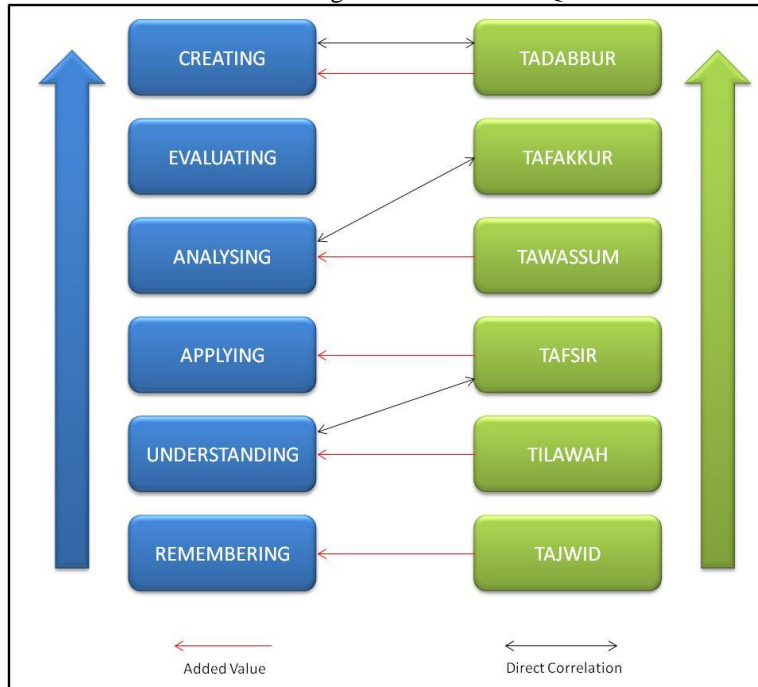
5.   CONCLUSION

The similarities between the cognitive domain in Bloom's Taxonomy and Quranic levels of understanding can provide better and extensive definitions for the existing cognitive domain due to the holistic elements that constitute in the Quranic levels of understanding approach. Thus, there is a possibility of implementing the Quranic levels of understanding approach to improve education effectiveness and subsequently provide a catalyst for developing an Islamic Concept Education system. However, the progress is still in its initial stage and the definitions for each level have a wide space of improvements due to the uniqueness of Arabic language.

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