DİNÎ VE FELSEFÎ METİNLER

YİRMİBİRİNCİ YÜZYILDA YENİDEN OKUMA, ANLAMA VE ALGILAMA

RELIGIOUS AND PHILOSOPHICAL TEXTS:

RE-READING, UNDERSTANDING AND COMPREHENDING THEM IN THE 21st CENTURY

CİLT - 1

DİNÎ VE FELSEFÎ METİNLER

YİRMİBİRİNCİ YÜZYILDA YENİDEN OKUMA, ANLAMA VE ALGILAMA SEMPOZYUMU
Bildiri Kitabı, Cilt: 1

Comparative Analysis Between Bloom's and Malik Badri's Taxonomies of Thinking Process

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Abstract

In common practice of education, we create learning objectives and assessment questions based on Bloom taxonomy of behavioral objectives. Bloom taxonomy has assisted teachers in transforming learning from low to high order thinking. Unfortunately, Bloom taxonomy has encountered a shortcoming of the assumption of men as merely the body and mind without addressing the spiritual entity. For Muslims to adapt Bloom taxonomy in planning and learning process reflects the ignorance of the fitrah or primordial of men which is the most crucial aspect in Islam. Therefore this taxonomy has to be revisited from the perspective of Muslim model of thinking. Further educational objectives in cognitive domain should be explored. This research aims at highlighting the assumption of metaphysical foundation of Bloom Taxonomy which is contradicting with the Islamic metaphysic. It also attempts to discover the differences between Bloom and Malik Badri taxonomy of thinking process which resulted from different metaphysical foundations and it's implication to the Muslim educational setting. This research aims to develop Muslim model of thinking for educational objectives in cognitive domain. The methodology of this research is based on the philosophical analysis and historical development of Bloom taxonomy and Malik Badri in order to identify the main differences between their taxonomies of the thinking process.

Introduction

In preparing students to accommodate and face challenges in the real life context, educators must emphasize on helping their students to develop their thinking skills. There has been misconceptions about thinking where people believe that the more edu-

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cated you are the better thinker they can be. De Bono has proven that thinking is a skill and can be enhanced through training and practice.[1] Previous researches have shown that thinking is a process of internalization,[2] reasoning when participating in dialogue,[3] and reflection.[4] Thinking can also be vertical which involves logical and the other is lateral that leads to creative thinking.[5] Developing thinking ability helps students not only to become successful but also to mould ones character with positive values in life.

Bloom has categorised thinking skills under six levels of taxonomy which has led to the contribution of learning domains.[6] Despite the approaches of thinking which relate to the six stages of thinking level, this present research seeks to revisit this model in the context of Islamic worldview. This is due to the fact that the thinking level in Bloom's taxonomy only leads to the survival of the material world. Islam views a more holistic approach of becoming a noble person who has steadfast and virtues towards God, the Creator of the universe. Realising the significant of developing thinking skills in students, efforts have been made by the Ministry of Education to emphasize the teaching of thinking as early as 1980s.[7] Malaysian Ministry of Education (1994) declared that by the year of 2000, sixty percent of the critical thinking elements will be inculcated into the final examination questions. This indicates that the thinking skill is indirectly being taught by infusing it in the subject matters through the type of questions being asked rather then solely focusing on the contents for the sake of examination. This is very much related to the higher order thinking (HOT) by Bloom's taxonomy where it refers to the stage of application, analysis, synthesis, and evaluation. There have been changes and critics on the Bloom's taxonomy of behavioural objectives which include the shifting position of synthesis as the highest hierarchy.[8]

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[1]   De Bono, E. (1991). *Teaching Thinking*. New York: Penguin Books

[2]   Vygotsky. (1978). "Interaction between learning and development,". in *Mind and Society*. Cambridge, MA: Harvard University Press

[3]   Mercer, N. & Littelton, K. (2007). *Dialogue and development of children's thinking: A socio cultural approach*. N.Y: Routledge Publication.

[4]   Wegerif, R & Dawes,L. (2004). *Developing thinking and learning with ICT: raising achievement in primary classrooms*. USA: Routledge-Falmer Publications.

[5]   De Bono, E. *Teaching Thinking*

[6]   Bloom, B.S., Engelhart, M.D., Furst, E.J., Hill, W.H., & Krathwohl, D.R. (Eds.). (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook 1: Cognitive domain*. New York: David McKay.

[7]   Rosnani Hashim. (1996). *Educational Dualism in Malaysia: Implication for theory and practice.* Kulala Lumpur: Oxford University Press.

[8]   Anderson, L. W. and Krathwohl, D. R., et al (Eds..) (2001) *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Allyn & Bacon. Boston, MA (Pearson Education Group)

Rote learning especially for the sake of exam does not involve the thinking element and eventually leads to a short term memory. The implication of stressing too much on information gathering will result the inadequacy of mind training, knowledge and wisdom, and internalization of Islamic worldview which becomes the missing dimesions of the present Muslim education. The 'good' decision mentioned by Bloom is only related to worldly affairs inline with the Western belief that men consist of body and mind. On the contrary, in Islam the ultimate goal of thinking does not only bring the person to make good evaluation (comprises of both worldly affairs as well as Here After) but most importantly would eventually bring oneself closer to the Creator of the Universe as His *Khalifah* (leader) and finally leads the individual to be good servant of Allah. This is inline with what Rosnani and Suhailah explicate that "thinking helps human beings not only to fulfil their responsibility, but also to understand the essence of their humanity."[9] Consequently, human being endowed with *'aql* – the ability to think, but who do not use their mind, their status are worst than the animals who are not so endowed (95: 4-6).

One of the root causes of why our youths are involved in social ills is because of the state of their thinking level. They are still bonded at the lower stage referring to the stage of knowledge, understanding, application, and has not yet arrived the higher level of intellect which links them to God. Malik Badri in his book *Contemplation*, asserts that what people have in mind, will affect their beliefs, feelings and their immediate action.[10] If their minds are focused on the greatness of Allah and His creation, this will strengthen their faith and lead to desirable behaviour and action, but on the contrary, if their mind is concentrated on pleasure and desire (*nafs*), it will lead them away from religion and degrade their behaviour, and finally bring to disastrous in lives. In a different situation, if their minds are centred on "fears, frustrations, failures and consequent pessimism,"[11] they will have the tendency to suffer from not only physiological problem related to health but most importantly they suffer the psychological disorder and problems which finally leads to various social problems in our society nowadays.

In trying to solve these problems faced by our youths, we need to change the "internal thinking" that leads to these behaviours. In other words, we need to teach them not only to make good decision as stated by Bloom by following the hierarchy of cognitive levels but most importantly as Muslim we need to teach them to contemplate

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[9]   Rosnani Hashim & Suhailah Hussein. (2003). *The teaching of thinking in Malaysia*. Kuala Lumpur: IIUM, p.10

[10]   Badri, Malik. (2000). *Contemplation: An Islamic psychospiritual study.* (Trans.) Abdul-Wahid Lu'Lu'a. Kuala Lumpur: Medeena Books.

[11]   Ibid. p.17

or to think deeply that eventually lead them to be aware of their relationship with God and their responsibilities as the *khalifah* (representative) of Allah. If our youths are able to reach this level of thinking, it will help them to make not only good but most significantly, wise decisions related to their worldly affairs and without neglecting the Here After. Consequently whatever decision made by them in their lives will be in line with teachings espoused by *Shariah*.

Cognitive psychologists maintain that human overt behaviour is determined by the conscious or unconscious internal cognitive activity. This finding corroborates with the Islamic principle which affirms that "contemplation, as an internal thought process, is the backbone of faith which is the source of every good deed."[12] Ibn al-Qayyim (as quoted by Badri) mentions "actions and deeds can only be sound when their internal and contemplative notions originate from a warm spiritual relationship with God".[13] Hence, if the mind has a spiritual connection with the Creator, it could lead to desirable behaviour which is in line with the teachings of Islam. This is because overt behaviour has a close relationship with the state of individual's mind. For this reason, we can say that the attitude and behaviour of a person is actually an indication of how he/she thinks. Therefore, if we want to change this behaviour and attitude we need to change the way they think. They need to be taught how to think correctly and systematically (according to Bloom taxonomy) which finally it brings the person to reach the stage of tafakkur which bring the person to be closer to the creator, Allah, the Almighty.

Taxonomy of Bloom has widely been accepted and used in many educational settings and learning institutions in different parts of countries including Malaysia.[14] For Muslims, Bloom taxonomy is not appropriate to be considered as the suitable measurement of thinking level to be used in teaching and learning methods due to the missing level of the spiritual connection with the Creator which could leads to the stage of disequilibrium in one self due to the emphasis of only one aspect of the self that is the physical and ignoring the spiritual aspect which is also part of the individual self. Thus, a new taxonomy of Muslim model of thinking for educational objectives in cognitive domain needs to be explored which is line in with the *Shariah.*

Bloom's taxonomy: an analysis

For the past 50 years, Bloom taxonomy has a great influence on educational theory and practice and has proved to be model of evaluation and constructing items to

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12 Ibid. p.18
13 Ibid. p.24
14 Marzano, R.J. & Kendall, J.S. (2007). *The new taxonomy of educational objectives* (2nd ed.). California: Corwin Press.

measure the low-level or high-level thinking skills.[15] In the 1980s begin the awareness on the need and importance of higher level of thinking to be emphasized in teaching and in fact, in the United States, prominent organizations such as the Education Commission of the States (1982) and the College Entrance Examination Board (1983) emphasized on the significant need to teach thinking skill. Besides that high-impact reports, for instance *A Nation at Risk* report of National Commission (1983) highlighted one of the major shortcomings in American education resulted from the failure of school system to teach students to think at the higher level skill. This was proven when researches and articles published by widely known journals such as *Educational Leadership* and *Review of Educational Research* revealed evidences that students were lack of higher order thinking skills and this led to their failure to answers higher level questions and apply what they have learned in class to their experience outside class. This movement has led to the awareness to revise Bloom taxonomy and more researches were produced to examine the validity of this taxonomy.[16] As a result of this, in May 1984, the Association for Supervision and Curriculum Development (ASCD) conducted a meeting at the Widespread Conference Center in Racine, Wisconsin to discuss this problem. Bloom taxonomy has been suggested to be further revised where existing research and findings as well as theory should be taken into consideration.

Bloom categorizes six levels of cognitive processes namely; knowledge, comprehension, application, analysis, synthesis, and evaluation. "The knowledge level is operationally defined as information retrieval".[17] Bloom et al., originally define knowledge "includes those behaviors and test situations which emphasize the remembering, either by recognition or recall, of ideas, materials or phenomena" (p.62).[18] At this learning stage, student is expected to recall and remember the information which they have received and learned.

The second stage is comprehension which embodies the "largest general class of intellectual abilities and skills. Thus, when students are confronted with communications, they are expected to know what is being communicated and to be able to make some use of the materials or ideas contained in it".[19] Student who makes an effort to understand the ideas at the first level i.e. knowledge is actually involved in the act of comprehension. There are three forms of comprehension outlines by Bloom

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[15]   Ibid.

[16]   Ibid.

[17]   Ibid. p.5

[18]   Bloom, B.S. et all., *Taxonomy of educational objectives: The classification of educational goals. Handbook 1: Cognitive domain*, p.62

[19]   Ibid. p.86

in this taxonomy: translation, interpretation, and extrapolation. Translation concerns with "encoding incoming information into some form other than that in which it was received"[20] whereas, interpretation "involves dealing with a communication as a configuration of ideas whose comprehension may require a reordering of the ideas into a new configuration in the mind of the individual".[21] Finally, extrapolation "includes the making of estimates or predictions based on understanding of the trends, tendencies, or conditions described in communication".[22]

The third stage, is application. Bloom differentiates between comprehension and application. "A problem in comprehension category requires the student to know an abstraction well enough that he can correctly demonstrate its use when specifically asked to do so. "Application", however requires a step beyond this. From this explanation, it shows that in comprehension students understand things abstractly and theoretically then from this abstract understanding, they are able to apply or practice it in different situations where they encounter with some modification according to situation in which they are in.

The next stage of cognitive skills analysis, Bloom further explicates between comprehension, application, and analysis: "In comprehension the emphasis is on the grasp of the meaning and intent of the material. In application, it is on remembering and bringing to bear upon given material the appropriate generalizations or principles. Analysis emphasizes the breakdown of the material into its constituent parts and detection of the relationships of the parts and of the way they are organised."[23] Analysis is considered as an aid to facilitate better understanding and assist in making evaluation of certain matters.

The fifth stage of Bloom taxonomy is synthesis. Bloom defines it as "the putting together of elements and parts so as to form a whole. This is a process of working with elements, parts, etc., and combining them in such a way as to constitute a pattern or structure not clearly there before.[24] Bloom further explains that in synthesis, "the student must draw upon elements from many sources and put these together into a structure or pattern not clearly there before."[25] In other words, synthesis is where the

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20 Marzano, R.J. & Kendall, J.S. *The new taxonomy of educational objectives*, p.6
21 Bloom, B.S. et all., *Taxonomy of educational objectives: The classification of educational goals. Handbook 1: Cognitive domain*, p.90
22 Ibid.
23 Ibid. p.144
24 Ibid. p.162
25 Ibid.

students would explain their understanding from different sources according to his own structure of words and patterns.

The final stage is evaluation. Bloom defines it as "the making of judgments about the value, for some purpose, of ideas, works, solutions, methods, material, etc. It involves the use of criteria as well as standards for appraising the extent to which particulars are accurate, effective, economical, or satisfying."[26] The evaluation stage is the final and end product of cognitive behaviour but not necessarily the last step in thinking process. Bloom states that "It is quite possible that the evaluative process will in some cases be the prelude to the acquisition of new knowledge, a new attempt at comprehension or application, or a new analysis and synthesis."[27] Quick decision made by some individuals without considering various aspect of the problem being judged is more appropriate to be considered as opinion rather than judgment.[28] If a person goes through all the five levels of cognitive process stated by Bloom, it will assist the person to reach the high order thinking which eventually help them to make 'good' decision in lives.

Critical Evaluation of Bloom Taxonomy

In Muslim context, the issue of missing element of God consciousness has to be addressed whenever the Bloom's taxonomy is implemented. The ultimate aim of thinking in Islam is to help the individual to make wise decision in lives which bring the person to realize of his/her self as the servant of Allah and eventually leads to the closer relationship with the Creator, Allah. For this reason, the knowledgeable the person, the closer their relationship with the Creator and the better person they will be in lives.

Further application of Bloom's taxonomy includes the problem solving and to make decision related to their worldly affairs. In Islam the highest stage of thinking is *tafakkur* in which according to Badri " *tafakkur*, like contemplation and meditation, involves deep thinking and reflection, but the aim of this meditative contemplation is necessarily spiritual in nature."[29] *Tafakkur* has a deeper meaning than critical thinking where it embraces this life as well as the hereafter (*Ékhirat*), and "beyond the superficiality of materialism to a deeper horizon 'the spirit' and for this reason, *tafakkur* motivates all

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[26] Ibid. p.185
[27] Ibid. p.185
[28] Ibid.
[29] Badri, Malik. *Contemplation: An Islamic psychospiritual study*, p.xiv

external and internal activities of the *mu'min*, i.e. the believer."[30] Badri further distinguishes between contemplation (*tafakkur*) and thinking from the secular perspective:

Contemplation…differs from secular in-depth thinking in that its visions and concepts go beyond this world of the here and now to encounter the infinite dimensions of the hereafter; its object goes from the creation to the Creator. While everyday thinking may be limited to the solving of worldly problems, and may be free from sentiments, passions and emotions, contemplation by its virtues crossing the worldly barriers and the limitation of matter into the everlasting freedom of the spirit, is capable of motivating all the internal and external psychospiritual reservoirs of the believers.[31]

According to Yusuf Qardawi "when a mind is guided by the Quran and the Sunnah, it will be graced by the light of faith and the light of revelation, as well as the guiding light of reason."[32] In his book, *Contemplation*, Badri elucidates that *tafakkur* or Islamic contemplation goes through several interconnected levels before it finally arrives the highest and final level which he called as the "stage of spiritual cognition" or known as *shuhed*. [33]

The first stage is when knowledge of the contemplated object comes through direct sensory perception-via sight, hearing, touch, smell and taste – or indirectly, as in the case of imagination. The second stage of contemplation starts when a person takes a closer look at these data, inspecting their aesthetic aspects and particular qualities. The third stage is when the meditator crosses the boundary between the created object of contemplation and its Creator. He or she is then carried away by feelings of submission to and appreciation of the one who brought the appreciated object of contemplation…When this refined meditation is repeated and reinforced with continual remembrance of the Almighty, it leads the worshipper to the fourth stage: spiritual cognition. Here, the spiritual feelings associated with deep contemplation become part of the worshipper's nature, and make him or her more loving toward and fearful of God and His sublime Attributes.[34]

In relation to Badri's level of cognitive stages, there are few similarities and differences with Bloom taxonomy. Badri's first stage of cognitive level resembles the first and second stages of Bloom that are knowledge and comprehension. The second stage of Badri is more related to the level of application, analysis, synthesis, and evaluation of Bloom taxonomy. Then, the third and fourth stage of Badri further extends where

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[30] Ibid.

[31] Ibid. p.2

[32] Ibid. p.28

[33] Ibid.

[34] Ibid. pp.30-31

it goes beyond the material world to a deeper horizon of the spiritual level which finally connects the person closer to the Creator, the Almighty Allah. This according to Badri is the highest stage of thinking in Islam, known as *shuhed.* The person who is able to achieve this stage is actually engaged him/herself in *tafakkur.*

If Bloom taxonomy is to be used as a guideline in any educational settings and plannings, it will only lead the person to make 'good' decision in their lives related to the worldy affairs but not necessarily bring the person to know and get closer to Allah, the Almighty. It would be more appropriate for Muslim to use Badri's taxonomy due to it's comprehensive composition which encompasses both the worldly life as well as the Here After. Badri's model of cognitive process can be summarised in Figure 1.0.
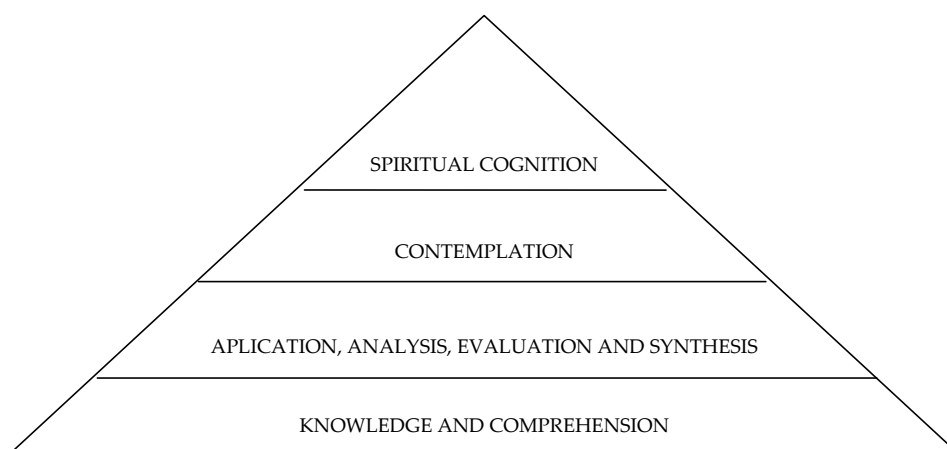
SPIRITUAL COGNITION

CONTEMPLATION

APLICATION, ANALYSIS, EVALUATION AND SYNTHESIS

KNOWLEDGE AND COMPREHENSION

Fgure 1.0. The Concept of Education in Islam

The purpose of seeking knowledge in Islam is "to produce a good man and not a good citizen" (Al-Attas, 1999, ix).[35] In order to understand a good man, it is significant to understand the nature of man. According to Al-Attas man is both soul and body; he is at once physical being and spirit; and his soul ought to govern his body as God governs the universe. Man has been given the faculty of reason, called 'aql in which rational soul recognizes and distinguishes truth from falsehood. It is also this that elevates him above the rest of God's creation and makes him the most honoured among them. The spiritual nature of man is evident from the nature of his creation as Allah mentions:

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[35] Al-Attas, Syed Muhammad Al-Naquib (1999). *Concept of Education in Islam*, Kuala Lumpur: International Institute of Islamic Thought and Civilization.

"God moulded him with His own hand and when it was fully formed, breathed His Spirit into it" (15:29)

Thus the Islamic tradition recognizes that man is constituted of body, mind, and spirit.

Man has been appointed to be the *Khalifah* (vicegerent) of Allah on earth by virtue of his acceptance of God's 'trust' *(amanah)* which has been interpreted as religious duties and divines commandments as Allah mentions:

"Behold, thy Lord said to the angels: "I will create A vicegerent on earth." They said "Wilt Thou place therein and shed blood?-whilst we do celebrate thy praises and glorift thy holy (name)?" He said: "I know what ye know not" in (2:30).

Due to this reason, man has been given the freedom of choice and action in carrying out this duties but he is responsible for whatever action that he has done and will be accountable in the Day of Judgement as Allah says:

"Then shall anyone who has done an atom's weight of good, see it! And anyone who has has done an atom's weight of evil, shall see it."

Therefore, man's freedom is not absolute. According to Al-Attas, education can be defined as recognition and acknowledgement, progressively instilled into man, of the proper places of things in the order of creation, such that it leads to the recognition & acknowledgement of the proper place of god in the order of being & existence. He further explained that the aim of Islamic education are to produce good man who recognizes his station in relation to Allah, his society, his self, and other beings; and act accordingly so that he produces the condition of justice with his wisdom. Other than that is to recognize and acknowledges his role as servant and vicegerent in this world who possesses the knowledge to manage his self and the system that he lives in. Man who recognizes that Allah as his creator and manifests his conviction with right actions that are determined by the *Quran* and the Prophet (SAW) traditions. Concisely, good man is a man who emulates the Prophet (SAW) as close as possible. Therefore in Islam, the ultimate purpose of education should cater to the balanced growth of man in all aspects of his nature: intellectually, spiritually, morally, and physically. Good moral character ought to be one of the fruits of a balanced education.[36]

Al-Attas (1999), defines knowledge as "the arrival of the soul at the meaning of a thing or an object of knowledge".[37] Here, the meaning of things means right meaning which is determined by the Islamic vision of reality and truth as projected by the

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[36] Rosnani Hashim. *Educational Dualism in Malaysia: Implication for theory and practice.*

[37] Al-Attas, Syed Muhammad Al-Naquib, *Concept of Education in Islam*, p.17

Quranic conceptual system. Meaning consists of the recognition of the proper place of God in the order of being and existence. Al-Attas further explained that there are two types of knowledge: First is the god-given or revealed knowledge. This is absolutely essential for man's guidance and salvation. It is comprised in the religious sciences and is necessary and obligatory to all Muslims (*fardu 'ayn*) and the second one is acquired knowledge. This includes the rational, intellectual and philosophical sciences. It is obligatory to some Muslims only (*fardu kifayah*). In Islam, the purpose of seeking knowledge is to understand and practice the knowledge, which is wisdom, and thus create justice. This knowledge is called *adab* because *adab* is the discipline of the body, mind and soul. Therefore, the purpose of seeking knowledge is ultimately to become a good man i.e. a man of *adab.*

Knowledge in Islam will enable man to grasp the right meaning or the reality of the signs he observes.[38] The 'right' meaning of the object of knowledge is determined by the Islamic vision of reality and truth as projected in the *Quran*. Thus, knowledge consists of recognizing the proper places of things in the scheme of creation that will lead man to recognize God, its magnificent creator of the Universes. However, recognition alone is enough if it does not lead to *'amal* (action). Therefore, recognition must be followed by acknowledgement of one's obligations and responsibilities so that it will lead to *'amal.*

In sum, the ultimate aim of knowledge is to lead man to recognize and acknowledge the existence of God, thus there is also a close relationship between knowledge and belief (*iman*). Islam emphasizes strongly to belief that is anchored in true knowledge, for without that knowledge man would find justification for believing anything ranging from simple superstition and blind imitation to elaborate systems of misguided theologies. Knowledge is closely related to action, and the logical outcome of knowledge are good deeds (*'amal salih'*).[39] For this reason, in Islam the aim of education does not only to gain knowledge, but most importantly is to bring the person know their creator better which at the end whatever they learn will be the light (*nur*) that can guide the person to be success in this world and also in the hereafter.

Conclusion

By implementing the Badri's taxonomy, we can plan learning objective in order to bring the learners close to the Creator. Learning outcome should change the learner not only to acquire knowledge of what they learn but most importantly to

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[38] Rosnani Hashim. *Educational Dualism in Malaysia: Implication for theory and practice.*

[39] Ibid.

make them know and realize who they are and their Creator, and to whom they will be accountable later. Learning outcome of using Badri taxonomy would eventually lead the learner to know their roles as the servants and *khalifahs* of Allah, and make them aware that their ultimate destination is this life is the hereafter. Worldly life is only the bridge to reach the after world. At the end of every lesson, students at all levels must understand not only the subject that they learn but also to apply it in their daily lives, and analyse the contents critically. This can be achieved by synthesizing all the sources of information that they have learned and read in order to help them make good decision and evaluation which finally bring the learners to materialize their responsibilities. If the students are able to achieve this stage, it will bring them to the stage of wisdom or *hikmah*. The person who is able to reach the highest stage of thinking in Islam would not only bring him/her to be closer to the creator alone but also they will be successful in this worldly life. Students will possess good *akhlaq* and personality because whatever action and decision that they make in their lives would not be contradict and against of the teachings and values of Islam as prescribed in the Quran and Sunnah of the Prophet (PBUH).