Quest Journals
Journal of Research in Humanities and Social Science
Volume 5 ~ Issue 1 (2017) pp: 18-24
ISSN(Online) : 2321-9467
www.questjournals.org

Research Paper

Integrating Science with Religion, Education and Community Based on the Idea of A Malay Woman Physicist

Nur Asyikin Hamdan, Hazwani Che Ab Rahman, Abdul Latif Samian, Nazri Muslim

Received 24 Dec, 2016; **A**ccepted 06 Jan, 2017

ABSTRACT: *This paper is about the idea of a Malay Muslim scholar on integrating science with religion, education and community. For this study, researchers have observed the ideas of a Malay woman thinker and the discussion that has contributed to the development of the knowledge. Prof Dr Khalijah Mohd Salleh was a scientist in physics. She was elected as an eminent figure for this study as she was a scientist who had played an important role in mobilizing an idea that is worth in creating the embodiment, correction and establishment of the facts that do not stray from the path of Islam, based on the Oneness of Allah, through what has been set in the Quran and the Hadith. She was one of those involved in developing Tawhidic Science idea. Science is universal and there is no separation between science and Islam. The contribution of Muslim scholars towards the establishment of Tauhidik Science is a reflection of their concerns which is significant in shaping human development, education and Muslim belief. In addition, it becomes a fort strong enough to prevent all forms of abuse against Islam towards the development of Malay civilization.*

Keywords*: Education, Integrasion of Science, Religion, Social Science*

I. INTRODUCTION

Nowadays, Malaysians have experienced the development achieved through the implementation of various aspects such as in education, the Islamisation of knowledge, social science and so on. This development encompasses all aspects of life in the entire archipelago. To implement such development, it requires high morale, hard work, resistance against any bad elements and competitiveness. Therefore, knowledge and science should be applied in implementing the envisioned development. The main objective of the development is to improve people's living standard and quality as well as their welfare.

The development in the Islamisation of knowledge has long been debated in our society. Therefore, this study discusses the idea of an Islamic scholar on the advancement of knowledge that includes the Islamisation of science and focuses on Physical Sciences. The Islamisation of science has become a major debate among Muslim scientists and thinkers like Syed Muhammad Naquib al-Attas, Ismail al-Faruqi and Seyyed Hossein Nasr. This debate comes under the influence of secularism and upheaval of Western science that has separatedscience and religion. So far, there are many prominent Muslim scientists and thinkers from the West and the East whodiscuss about it according to their understanding and expertise.

The researchers focused on the development of science specifically in Physical Sciences. Physics is a science created from human attempts to understand nature. At first, Physics was better known as a natural philosophy. This name is actually more meaningful because Physics is a compilation of experience, observation and conceptsso that the natural phenomenacan be understood consistently (Zainul Abidin, 1997).

II. RESEARCH BACKGROUND

One aspect of the development of science to be studied is the Islamisation of knowledge that aims to re-evaluate the contemporary knowledge built from the Western tradition, on the assumption that they are influenced bysecular Western values. According to Khalijah Mohd Salleh (1992), science is "the process of acquiring information through systematic observation, rational analysis of the observed object or phenomenon to acquire knowledge". She also noted that for Muslims, the objectiveto study science is to "unravel the secrets of nature and be able to understand the nature and behaviour of the universe and legal compliance" and "to recognise the power of Allahthat can reinforce our confidence towards Him".

In a current study by Thomas Kuhn, his paradigm theory stated that science consists of different perspectives. He highlighted that in the history of science, there are different sciences in the West. For example,

Newton Science, Decartes Science, Copernicus Science and Ptolemy Science. These sciences are different. This is because each science proven by Thomas Kuhn has its own metaphysics, epistemology, axiology, value and solution (Kuhn, 1972). Similarly, in the Science of Islam, metaphysics is our belief that God exists and its epistemology leads us to make the Quran and the Sunnah as our guidance in life. This contrasts with Decartes Sscience which rejects the Quran and the Sunnah.

In a more technical definition, Khalijah Mohd Salleh defined science as "mapping a statement to an intellectual perception, the action taken on the shape or structure of a being that exists, the dynamic process of a phenomenon and a state of a being or a phenomenon". (Sh. Mohd Saifuddeen, 2012). Physics is different from other sciences such as Chemistry and Biology because it refers to the aspect of matter that is included in all things created by God. The main objective of this study is to acquire the actual knowledge of matter objectively (Maxwell, 1984) and in a logical order. Natural features to be studied are the form, characteristic and behaviourof the matter as well as the laws and requirements of the invisibility of a characteristic.

The late Prof Dr Khalijah Salleh was elected as an eminent figure of this study due to her significant contributions in the development of Physics as it was difficult to develop Physics during her time. She was a Muslim Malay scientist woman who played an important role in mobilizing aworthyideain creating the embodiment, correction and establishment of the facts of knowledge which do not stray from the path of Islam that establishes the Oneness of Allah through what has been prescribed in the Holy Quran and the Hadith. This idea is called as the "Islamisation of knowledge".

The main task of the initiator of the Islamisation of science is to carry out researchinan Islamic way and not allowing the existing science to repair the Islamic approach so that it is suitable with the current science received from the West. Science is universal and there is no separation between science and Islam, including Physics. In addition, until now, there is no in-depth study on the personality of a Malay women scientist written by any researcher. Not all questions or problems faced by human beings can be answered positively and pertinently by science because they are limited for the research that is conducted to find the truth. Not all religious matters are science matters, but all science matters are religious matters. Therefore, Islam is the most suitable reference to the basic questions that cannot be answered by scientific research (Abdul Latif Samian, 1999). Therefore, Islam can be a guideline to the basic questions unanswered by the scientific research as the answers to these questions are attached to the Creator of knowledge.

Country such as Malaysia where the majority of the population are Muslims and is moving towards a modern and developing country, will eventually be facing the matters arising from the acceptance and advancement of science and technology for the developmentof the country. In this situation, the responses from the Islamic scholars on the significance ofthis issue is important to be studied, understood, and explained. According to Khalijah Mohd Salleh, she believed that the most fundamental challenge occurs when Muslims do not accept science as a part of their cultural life in this modern age (Sh. Mohd Saifuddeen, 2012).

She argued that if the culture of science is inserted in the lives of Muslims, the majority of the Muslims will be able to shape a more scientific, systematic and logical idea and action. Therefore,this research aims to investigate and evaluate whether the idea of Khalijah Salleh on the development of physical sciences is based on three pillars which are *Iman* (faith), *Islam* and *Ihsan*to fulfil the the requirement in Islam. In addition, the questions on the social sciences and physics education introduced by Khalijah Salleh will be explored thoroughly in this study. Her efforts also lead to an argument on women's right in our developing country.

III. RESEARCH METHODOLOGY

The methodology of this study was divided into two stages which were (i) data collection; and (ii) data analysis. In the data collection stage, the two methods used were documentation and interviews with the respondents. This study also involved library study and fieldwork comprising interviews with selected friends of the eminent figure of this study. The methods used in the first stage were described as below:

a) The First Step- Data Collection

In order to collect data for this study, four approaches were used by the researchers. These approaches were as follow:

(i) Selected and determined the focus of the study by reading literature relevant to the subject of the study. The reading materials consisted of books, papers in academic journals, magazines and newspapers, as well as relevant Internet resources.

(ii) Gathered the facts which weredirectly related to the subject of the study through reading and discussion with experts in the fields related to the subjectof the study.

(iii) Attended seminars and conferences related to the subject of the study to obtain the latest related information.

(iv) Interviewedthe experts relevant to the subject of the study.

This study was based on qualitative and descriptive analysis. In addition, the researchers also obtained resources

for qualitative data and information through written materials such as books, journals, monographs and articles. Discussion materials such as seminars, conferences, scientific discussions and related research findings were also given attention. The study also involved library resources data.

These data were obtained from two sources which were primary sources and secondary sources. The primary sources included the writing and research of the prominent scientist and thinker being studied. While the secondary sources were from the works of scholars who wrote about the Islamisation of science, the discourse of history and the philosophy of science. Qualitative data were also obtained through interviews with several academics who were close friends or students of the prominent figure being studied.

b) The Second Step- Data Analysis

In order to analyse the data, three methods were used by the researchers. The methods were as follow:
(i) Inductive method (istiqra') where particular data were analysed to makeand find general conclusion.
(ii) Deductive method (istinbat) where general data were analysed to make and findparticular conclusion.
(iii) Comparative method (muqaranah) which compared, classified and organised a variety of data and facts to prove the hypothesis.

IV. THE INFLUENCE OF KHALIJAH SALLEH'S IDEA

The results of scientific research allow people to invent. For Muslims, the Quran is the holy book as a reference for people. The country and society in Malaysia are heading towards an industrial era. This requires the country to change its economic activities from the export of raw materials to creating its ownproducts. Important tools that should be used are innovative science and technology and viable society. Here, physicists have a big role in the development of anindustrialcountry and community.

According to Khalijah Salleh, since Physics is a field of knowledge, it should exist in a society's cultural heritage. Useful knowledge can guide us to know and understand the phenomena that occur in this universe. Physics is a fundamental knowledge about nature, movement and interaction of physical natural system refers to either itself, another system, environment or energy. The study of Physics according to the current practice, use the experimental method which can display the empirical results and thenconfirm by repeating the experiment. Physics is different from other areas of science like chemistry or biology as the object of the study in this discipline refers to the matter that contains in all things created by God (Khalijah, 1992).

In addition, Physics exercises and practices will have a positive effect towards the improvement of one's intellectual progress. The study of Physics cannot happen in a passive state of mind. Therefore, the mind tries to find an explanation of an event, process and interaction. The mind will be more sensitive in detecting the required information and more active in processingthe incoming information in order to create an actual cognition. This happens when we really understand what has been thought.

According to Al-Attas (1972), Islam has brought the spirit of rationalism and intellectualism to all its followers, and this can be figured out and proven through many writings on philosophy and metaphysics specific to all. Similarly, the knowledge of Physics also influences a person to use rational and logic when questioning about the reason of an event. Thinking in such way frequently can train and enhanceone's thought. When he is given a problem, he can analyse that problem and then find solution to the problem. Intellectual skills acquired through Physics exercises have vast advantages in a person's life. The current Physics has been adopted and developed based on a secular philosophy that separates matter and spiritual. Therefore, people who are studying Physics without understanding its philosophy would say that it is the only absolute way. Consequently, any Physics activity is subject to that secular ideology and framework.

a) Social Sciences

Social sciences refer to the situation where ordinary people are aware of the existence of science and know the basic things about the universe they live. They practice the science operating system where they are trying to understand why and how things happen or why the problem happens (Khalijah Salleh, 1995). Some community will also appreciate the values of science such as systematic, rational, precise and exact in conveying their ideas or to manage and govern their lives in different conditions. Knowledge, skills and values of science are the cultural heritage of our society. The acquisition of knowledge, skills and values of science allow us to know and understand the environment that is rich in natural resources, whether in the sea, on earth or in space.

Social Sciences also refer to the acceptance, usage and transformation of scientific activities in various affairs of life according to the particular needs of local communities (Khalijah Salleh, 2009). The main source of a country is the people themselves. Countries that want to move forward requires community members who have a high quality of life and are in a prosperous and secure life. This requires each member to work together to support, develop and build a highly civilized society. Hence, there is a need to establish a systematic, organised, and controlled life as well as living in harmony with society and the environment. These characteristics are in accordance with science.

The characteristics of science should be the community's cultural heritage not only to allow the members to have a high intellectual level but more than that. The presence of knowledge, scientific approach and appreciation of the values of science allow people to play a more effective role in the development process. They will understand more about the nature where they live and be able to deal with the natural environment. The idea to socialise the science is merely a fantasy if the community members do not take care of the development of science and technology in various contexts of social, economic and spiritual.

b) Women and their Struggle

Women before Islam could not enjoy their rights as a human being at all. Their rights were ignored, their desires weresuppressed, their opinions were ignored and they were not given a place in society (Said Abdul Aziz Al- Jandul, 1994). The main objective of the struggle for Islamis to uphold the truth of Islam as well as provide the rights and freedom to all human beings. The struggle forIslamic teachingsmeans to fight for the survival of an Islamic society in any activity in economic, education, private and society according to the tenets of Islam. This process is dynamic as it should be continued forever. This is because, when it is stopped, the situation will be endangered and eventually destroyed. In the process of struggle, women have their respective roles. In Islam, the struggle does not necessarily happen in the battlefield. It starts within oneself towards the family, village, state, country and nation. It depends on the skills and abilities of the woman thatare suitable and fitfor her.

Women struggle within herself is to strengthen her faith and be pious and righteous. Women who understand the Islamic concept will endeavor to carry out all the commandments of Allah as much as possible and stay away from all His prohibitions. As a wife who is knowledgeable and full of confidence, she can be a friend and a companion for her husband by encouraging him in doing good actions. As a mother with a very big role, she is the only person who can educate a child to be a good person. Mother is a Muslim model for her children either in terms of manner, speech or action. She is also the main educator who can inculcate the spirit of Islam in the minds of their children from the very beginning (Khalijah Mohd Salleh, 1992).

c) Physics Education

The curriculum for Physics at the university was built based on the model from the West without taking into account the requirements and valuesof life in local community. Among the efforts being made to build a model of Physics curriculum is through the Workshop of the Curriculum Review and Development of Science Education (PEKADESA) Physics at the university level by the Department of Physics, the National University of Malaysia. According to Khalijah Salleh (1992), in Physics Education particularly, an effective learning occurs if students have successfully obtained the perception of the natural reality of Physics, its characteristics as well as the causes and effects of a phenomenon. In the end, students are able to understand the meaning of what have been read and observed.

The development of Physics in terms of information technology has greatly influencedthe culture of life today. In education particularly, the application of this technology in teaching and learning process has provided a new shift in pedagogical techniques. Some previous research have shown that the use of technology has revolutionised the teaching techniques, students' learning methods and overall, education has functioned in accordance with the current era.

IV. KHALIJAH SALLEH'S CONTRIBUTIONS IN THE DEVELOPMENT OF PHYSICS

She has contributed her ideas greatly on the development of science, especially in Physics. Science and technology (S & T) is often regarded as a tool to achieve the advancement of Physics. However, according to Khalijah in her study, S & T is not used greatly for social or spiritual development in the cultural community, but it is solely serves as a tool for economic development of a country. According to her, the term "*acuan sendiri* (own technique)" refers to the compatibility of religion and science that must not be separated. Therefore, there must be efforts to study science and technology for social development, and not merely science and technology for the production of wealth while ignoring the quality of life that also emphasises the divine aspect.

Khalijah highlighted the issue of the separation of science and religion which contributes to lack of sensitivity and community's inclination towards science. Modern sciences give rise to crises such as the degradation of the environment, human and spiritual qualitiesresulted from a new paradigm shift. Khalijah viewed that *tawhidic* or Islamic paradigm has the potential to solve the crises generated from modern sciences paradigm. This paradigm emphasises the role of human being as a manager of science and a guardian of nature who has social responsibilities and rules of philosophy based on the Quran. This paradigm shift is hoped to produce a new image and bring about changes to create science that has new features and characteristics. In creating new science, she referred to the Sciences of Islam(Khalijah, 2014).

She preferred to call it as *Tawhidic Science*which is based on *tawhidic* paradigm. It contradicts with secular paradigm that has created secular sciences which has been exalted byWestern civilization. *Tawhidic*

paradigm is based on the concept of *tawhid*that has three basic entities which are the relationship between human beings whose role as a servant and a vicegerent of Allah, nature, and Allah as the Creator of human beings and nature. This *tawhidic* paradigm model takes into account the divine aspect, while secular sciencesonly havetwo entities which are human being and nature. The divine aspect does not exist in secular sciences at all. Khalijah referred *tawhidic* paradigm as a paradigm that is based on the concept of God, a model in providing guidelines as well as shaping and forming science activities.

In the Sciences of Islamcontext, she viewed that science and technology helps to prepare oneself to return to Allah through the role played by human based on this *tawhidic*paradigm that stressses on the Oneness of Allah. Emphasising the concept of *tawhid* (faith) has also been described by Al-Faruqi (1992) in his writing*al-Tawhid: Its Implications for Thought and Life* which explains the concept of *tawhid* as a religious experience and a view of nature. In this writing, he also tried to explain the basic doctrines of Islam which can be seen from various perspectives that are interrelated to each other, including history, comparative religion, anthropology, philosophy, ethics, epistemology and archeology.

Khalijah Salleh explained that based on this *tawhidic*paradigm, human acts as a servant and a vicegerent of Allah who uses nature. Human needs to understand the structures, characteristics and laws of nature. Human activities in understanding the nature create science activities while the Quran and the Sunnah become thesource of references to acquire knowledge and a guidance. Through this guideline, human has built a religious life and this science activity will lead to Allah. However, all human actions are subject to the rules set by Allah through *sharia* (Islamic law).

Khalijah viewed science activitiesas something that can increase awareness and appreciation of human towards nature, and thus lead them towardsAllah and religious life. In addition, to help science activities guided by Islam, science activities should be subject to ethical rules. There lies the integration between human as the vicegerent of Allah who use the resources to meet their needs and their position as a servant of Allah who comply with *sharia*. This approach is not included in paradigm without God. In short, the *Tawhidic* Science is based on *Tawhidic* Science paradigm, while *Tawhidic* Science education activities oriented on the divinity, humanity and materialism. This *Tawhidic* Science concept will also be applying in the classroom. Through this *Tawhidic* Science paradigm, it allows an alternative scientific model to be introduced to the students.

Tawhidic Science course is currently being implemented, enabling the integration between science and religion. It is more divine, human and natureoriented, intellect and the Quran becomes a source of knowledge. This *Tawhidic* Science course will be introduced in the Faculty of Science and Technology, UKM. This course allows the *Tawhidic* Science conceptual framework to be applied to the epistemology level and introduced as a course to students of science and technology. In addition, to ensure the development of "*acuan sendiri* (own technique)" is successful, creating a culture of science in society is very important. "Socialising science" according to her should not happen spontaneously orthrough evolution in Malaysia, but it requires planning and following the formulation of certain policies and foundationsset by the government.

Therefore, if the process of socialising science is successful, people will have high intellectual and scientific understanding levelas well asbe able to provide standards according to the *tawhidic* paradigm towards science activities. Besides that, this situation will indirectly be able to curb social problems and the ways of life that are not compatible with the needs and demands of science and technology. The benefits of science can also be enjoyed by all levels of society, not just the science community only. The efforts and contributions of Khalijah in education have a huge impact on society. Through these efforts, the discourse of the Science of Islam or*Tawhidic* Science (a term she prefered) can be applied directly to the public and this is her major contribution.

Despite her contribution in writing was not so noticeable, her efforts to apply *Tawhidic* Science in Science Education has became a symbol in the socialisation of science based on *tawhidic* paradigm. Her actions are related with the challenges women have to face in modernity. These challenges involve professional women. The works done by her, especially in scienceshow an example of a Muslim professional woman who has appreciated modern life based on Islamic values. Muslim women can apply the idea of *Tawhidic* Science in their profession and daily lives. This prominent figure provided responses and manifestations of modernity and ways to cope with the modern world based on Islamic identity.

V. PRINCIPLES PROPOSED BY KHALIJAH SALLEH

Islam gives place to the political situation. Islam is not distressing Muslims. According to Khalijah Salleh, in implementing Islamic values in the development of Physics, it does not cause the government and the country to become weak, uncompetitive and create chaos. If these occur because of the application of the values of Islam, Islam will get a bad reputation and will be considered as a barrier to development. Among the values of Islam are responsible, hardworking, sincere, prioritise others, willing to sacrifice time and energy, wise and good character (INTAN, 1991).

Whether we like it or not, the fact is that human instinct causes them to admire and respect successful people.

Therefore, the application of Islamic values does not mean to worship for our afterlife only. Islamic values to be applied are the values that will successfully establish anefficient government which is capable of governing effectively in terms of security and development that could compete with other governments (INTAN, 1992).

VI . COMPARISON BETWEEN KHALIJAH SALLEH AND OTHER EMINENT WOMEN FIGURES

The role of women in the development of a country is essential for the welfare of human being. Another example is Ibu Zain. She was not willing to see her generation left behind without knowledge and therefore, she established a school. Ibu Zain was also active in the association. She was among those who were responsible in establishing the Malay School Teachers' Association and Johor Religious School. Her authority brought confidence to the members until she was promoted as the first president of the association. She became the President of the Federation of Malay Women Teachers for 19 years since 1930.

Ibu Zain's contributions are more meaningful after the Japanese intrusion in Malaya. She carried outIslamic preaching to help restore the morality of women who were influenced by the Japanese army, besides helping to restore the spirit of those persecuted by the soldiers. More surprisingly, she was able to master the Japanese language in a month. Ibu Zain also contributed for thenational independence. She managed to unite mothers to participate and support these efforts. She bravely signed up as a volunteer army and went to the forest alone. She moved from one village to another village to stop the communist propaganda from spreading in the community. Apparently, her efforts were rewarding. In the same year on March 10, 1963 she was appointed as a Principal of the Princess Tuanku Ampuan MariamCollege. Ibu Zain also played a role in upholding the Malay language. She was involved in the Malay Language and Literature Congress in 1956, until the formation of Dewan Bahasa dan Pustaka in 1958.

Dr. Louis Lamya al-Faruqi (1926M-1986M) was a prominent American Muslim women intellectual who was well-known in the mid-20th century AD and she was also known by the leadership of her husband, Dr. Isma‟il Raji al-Faruqi. The measures proposed by Louis Lamya aim to reject the negative ideologies of the West and to solve problems faced bypeoplesuch as in creating a Quranic community, forming Islamic feminist movement and encouraging the community to build a large family institution in the public system. She was a Muslim woman who was active in the Islamisation of knowledge and her main area is Social Sciences.

Besides Ibu Zain and Lamya Faruqi, Marie Curie is also familiar to us. She was the first woman to win the Nobel Prize which is the Nobel Prize in Physics and Chemistry. Her research on radioactive material had allowed her as well as her husband, Pierre Curie to share the Nobel Prize in Physics in 1903 with Becquerel, a physicist who discovered radioactivity. After that, she became the sole winner of the Nobel Prize in Chemistry in 1911. Marie Curie is a remarkable woman. Her life story is extraordinary, like a drama which is full of sorrow, hardship, and suffering.

Khalijah Salleh is different from Lamya Faruqi, Ibu Zain and Marie Curie as she tried to develop science according toIslamicperspective. The development of science introduced by her includes education that is based on *tawhid*. *Tawhidic* Science education does not reject Allah in every scientific aspect where in the name of Allah, the exploration of science and technology iscarried out. Thus, the *Tawhidic* Science education will produce a more responsible human being. This approach is very different from western scientific approach that ignores God in its scientific activities.

VI. CONCLUSION

Since awareness on Islamic teachings and the way of life is increasing among the community in this country, Muslim women are also questioning about their existence in society. Some say that the role of a woman is at home, taking care of her husband, family as well as physical development, education and spiritual of herchildren. This opinion is certainly supported by the majority of men and women. However, there are many Muslim women who are educated and have their own profession. Consequently, they are facing a dilemma whether to continue working and help the family besides being a woman blessed by Allah.

Therefore, women should check and learn the teachings of Islam which proposea solution to this issue. This solution requires information on the tasks, responsibilities and activities allowed for them. In addition, women need to know the rules of life that should be followed if they are in a public place with men. Above all, women need to understand significance activities that need attention. As a Muslim, the main source of references are the Qur'anand theSunnah.

Khalijah Salleh was a Malay woman scientist that should be followed by all modern Muslim scientists because she did not only concern with the true statements, careful observation and accurate experiments, but her interpretation about any physics phenomena wascloser to the conventional teachings of Islam than most scientists who only depend on philosophy. Thus, the study of Physics development according to the idea of a Muslim Malay woman physicist needs to be carried out to highlight the real relationship between Physics and religion from Islamic perspective.

REFERENCES

[1]. Abdul Latif Samian. 2012. Memetakan Metamatematik. Bangi. UKM.
[2]. Abdul Latif Samian. 1999. Falsafah Matematik. Dewan Bahasa dan Pustaka. Kuala Lumpur.
[3]. Ismail Faruqi. 1992. al-Tawhid: Its Implications for Thought and Life. Herndon: International
[4]. Institute of Islamic Thought.
[5]. INTAN. 1991. Nilai Dan Etika Dalam Perkihidmatan Awam. Institut Tadbiran Awam Negara
[6]. (INTAN) Malaysia. Kuala Lumpur.
[7]. INTAN. 1992. Tonggak Dua Belas: Penerapan Nilai Norma dan Etika Perkhidmatan. Institut
[8]. Tadbiran Awam Negara (INTAN) Malaysia. Kuala Lumpur.
[9]. Khalijah Mohd. Salleh. 2009. Penghayatan Budaya Kependidikan Yang Kondusif Untuk Kemajuan Sains dan Teknologi. Dalam Mohd Yusof Othman (Peny). Siri Wacana Sejarah dan Falsafah Sains (pp. 548-571) Kuala Lumpur: Dewan Bahasa & Pustaka.
[10]. Khalijah Mohd. Salleh. 1992. Penyelidikan Dalam Pengajaran Dan Pembelajaran Fizik di Institut Pengajian Tinggi. Seminar on PhysicsEducation: Ke Arah Mengatasi Masalah Pendidikan Fizik di ITM, 6-7 Jan. Institut Teknologi MARA.
[11]. Khalijah Mohd. Salleh. 2009. Pemasyarakatan Sains : Satu Proses Evolusi Spontan Atau Perencanaan.Dalam Mohd Yusof Othman (Peny). Siri Wacana Sejarah dan Falsafah Sains (pp. 572-578) Kuala Lumpur : Dewan Bahasa & Pustaka.
[12]. Khalijah Mohd. Salleh. 1992. Pendidikan Fizik di Universiti Suatu Perspektif. Universiti Kebangsaan Malaysia.
[13]. Khalijah Mohd. Salleh. 2009. Anjakan Paradigma Dan Perubahan Imej Sains. Dalam Mohd Yusof Othman (Peny). Siri Wacana Sejarah dan Falsafah Sains (pp. 625-635) Kuala Lumpur : Dewan Bahasa & Pustaka.
[14]. Khalijah Mohd. Salleh. 2009. Metodologi Pengajaran dan Pembelajaran Sains dan Matematik: Satu Pendekatan Yang Praktikal. Dalam Mohd Yusof Othman (Peny). Siri Wacana Sejarah dan Falsafah Sains (pp. 647-663) Kuala Lumpur : Dewan Bahasa & Pustaka.
[15]. Khalijah Mohd. Salleh & Nik Abdul Aziz bin Nik Sulaiman, " Kedinamikan Operasi Mengukuhi dan Melestarikan Akar Budaya Melayu". Paperworkpresented in theLanguage, Literature dan Malay Culture Conference, Universiti Putra Malaysia, Serdang. 24-25 January 2006.
[16]. Khalijah Mohd. Salleh. 2014. Pendidikan Sains Berteraskan Tauhid. Universiti Kebangsaan Malaysia. Bangi.
[17]. Kuhn, T.S. 1962. The Structure of Scientific Revolutions. Chicago: The University of Chicago Press.
[18]. Maxwell, N. 1984. From Knowledge of Wisdom. Oxford : Basil Blackboard
[19]. Syed Muhammad Naqiub Al-Attas. 1972. Islam Dalam Sejarah Dan Kebudayaan Melayu. Bangi. UKM.
[20]. Said Abdul Aiz Al-Jandul. 1994. Wanita Di Bawah Naungan Islam. Thinker's Library Sdn. Bhd
[21]. Sh. Mohd Saifuddeen Bin Sh. Mohd Salleh. 2012. Tipologi Interaksi Antara Agama Dan Sains: Satu Penilaian Dan Cadangan Menurut Perspektif Islami. Universiti Malaya. Maxwell, N. 1984. From Knowledge of Wisdom. Oxford: Basil Blackboard
[22]. Zainul Abidin Bin Hassan. 1997. Konsep Fizik Masa Kini. Jurnal Kesturi 1997,7(1) 39-46.Universiti Putra Malaysia.