



Oasis International Conference on Islamic Education (OICIE 2014)

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“Positioning and Repositioning Islamic Education”

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Message from Chairperson

Assalamualaikum Warahmatullahi Wabarakatuh

All praise be to Allah for His blessings that permit us to gather here today for this very significant occasion. First and foremost, I would like to welcome all of you, especially participants and guests from overseas to OASIS INTERNATIONAL CONFERENCE ON ISLAMIC EDUCATION 2014.

On behalf of the Organising Committee, I would like to extend my deepest appreciation to Prof Dato Dr Zakaria Kasa, for taking some time off from his busy schedule to officiate this meaningful conference. Your presence here indicates the level of commitment of Universiti Pendidikan Sultan Idris towards ensuring a quality and successful Islamic education particularly in Malaysia. That certainly deserves a big round of applause from all of us in this hall.

I would also like to express my gratitude to our distinguished keynote speakers: Prof Dato Dr Hassan Basri Awang Mat Dahan and Prof. Dr. Rosnani Hashim, who would be sharing with us their thoughts and insights based on their vast experiences and updating us with challenges and prospects of Islamic Education.

Before I proceed any further, allow me to introduce Al Amin Edu Oasis, the main organizing committee of OICIE 2014. Al Amin Edu Oasis is a wholly-owned subsidiary of Pusat Pendidikan Al Amin. It was established only last year and is led by professionals in diverse fields, whose passion lies in Islamic Education. With accumulative experience of more than 20 years in Islamic Education, Al Amin Edu Oasis actively organises training courses for teachers and staffs of schools under Pusat Pendidikan Al Amin Berhad Group and others. Al Amin Edu Oasis's vision is to be a well-known consultative body that provides a wide range of programmes tailored specifically to the needs of Islamic Education, in sha Allah.

As we gather more experience be it in encountering successes or shortfalls in Islamic education, it is timely to prepare for challenges and prospects of the 21st century. For that matter, this conference hopes to bring together experts in Islamic education – be they practitioners, academicians, researchers, principals, teachers or even concerned individuals to thoroughly deliberate on empowering or to be exact, positioning or repositioning Islamic Education. I believed that this conference serves as a platform to discuss, share ideas and strategies in enhancing the quality, productivity, and efficiency of Islamic education.

There were many debates, paperwork presentations and discourses on current educational issues that were presented in other forums or seminars. All these helped in further improving the Islamic education system from time to time. We believed that all presenters are eager to share their research and findings. Thus, this is a great chance for participants to gain as much knowledge from the event. To add value to Islamic Education, we have to work extra hard and conduct more researches in every aspect of Islamic Education

I really hope those papers presented in this conference will generate new ideas and innovations towards transforming the Islamic education. From there, we will together reposition the Islamic education onto the right track. May Allah bless our effort and accept this as good deeds in the *akhirah*.

To conclude, I sincerely hope that all the discussions during today's conference will equip us with a wealth of knowledge regarding Islamic education. I look forward for future fruitful and productive meets, continual exchange of ideas and more innovative sharing.

Jazakumullahu khairan kathira. Wa billahi taufiq wa al hidayah. Wassalam 'alaykum wa rahmatullah wa barakatuh.

Mr Abdul Aziz Abdul Jalal
Chairman

Oasis International Conference on Islamic Education 2014

Message from Editorial & Publication Chair

We have received papers that cover the topics under the overall theme of the conference; **“Positioning and Repositioning Islamic Education”**. It covers main domains such as Islamic Education Philosophy, Islamic Education Curriculum, Islamic Pedagogy, Leadership and management of Islamic Education, and measurement and evaluation of Islamic Education. This conference brings together high-profile of professionals such as global leaders, experts, academicians, researchers, practitioners and many more from around the world who will be sitting amongst you.

The conference papers were peer-reviewed by our locally and internationally renowned reviewers from various universities. The resulting accepted papers reflect the quality and excellence required of this conference. We are happy to say that the authors have come from few countries, including Malaysia, Nigeria, and Thailand giving strength to the wide appeal that this conference and its domains have with regards to its theme. The parallel session will be organised into four tracks:

- 1) Pedagogy and ICT Applications
- 2) Islamic Leadership and Character Development
- 3) Islamic Education Philosophy and Curriculum
- 4) Rejuvenation of Science Education

Many thanks to the reviewers for their tireless efforts ensuring the standard and quality of papers presented today. And to the authors of the papers, for their excellent contributions in making this conference a success.

Finally, we would like to wish all of you a very happy and productive conference. We encourage you to attend as many paper presentations during the conference. Thank you and enjoy the conference! We look forward to seeing you in Kuala Lumpur.

Assoc Prof Dr Salwani Mohd Daud
Editorial and Publication Chair
Oasis International Conference on Islamic Education 2014

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THE KINDERGARTEN *IHTIFAL* AS A PROJECT-BASED PEDAGOGICAL TOOL: THE AZZARIF EXPERIENCE

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ABSTRAK

Ihtifal, atau persembahan konsert menjelang akhir tahun merupakan suatu aktiviti wajib bagi sebahagian besar pusat pendidikan awal kanak-kanak di Malaysia. Bagaimana persepsi pengusaha tadika mengenai tujuan mengadakan konsert tahunan ini akan mencorakkan bukan sahaja kandungan konsert itu tetapi juga proses melatih kanak-kanak untuk hari tersebut. Memandangkan masa dan sumber yang diluahkan untuk konsert ini, artikel ini akan membincangkan bagaimana konsert boleh digunakan sebagai satu medium pembelajaran dan pengajaran bersandarkan kepada pembelajaran berasaskan projek. Ia mengajak pengusaha tadika meletakkan perkembangan kanak-kanak sebagai fokus utama penganjuran konsert dan bukan semata-mata untuk memenuhi permintaan pasaran. Walaupun konsep ini boleh digunakan oleh semua tadika, kandungan perbincangan akan menjurus kepada tadika Islam sebagai pusat tarbiyyah awal kanak-kanak Islam.

ABSTRACT

The *ihtifal*, or the end-of-year concert is a common compulsory event for many early childhood education centres in Malaysia. The perception of the kindergarten operator on the reason for holding the concert will influence not just the content of the concert itself but also the process of training the children for that day. Given the amount of time and resources devoted to the concert, this article will discuss how the concert can be used as a teaching and learning medium in line with the principles of project-based approach. It appeals to the kindergarten operators to put children's development as the major focus of the concert and not simply as a way to satisfy market demand. Although the concepts are applicable to all kindergartens, the content of the discussion will emphasized on Islamic kindergartens as early education centres of Muslim children.

Keywords: early childhood education, project-based approach, ihtifal

1.0 INTRODUCTION

The annual concert, held usually in the later part of the year, is a common feature in many early childhood centres in Malaysia. Besides the Sports' Day, this is inarguably another major event in a school's calendar due largely to the nature of its exposure to the public. Although attended mainly by the close family members, in this age of digital photography and social media, images and what happens at the event can quickly be seen by others. So the stakes may become high.

Some clips may get up-loaded into more public domains and may get viewed again and again by countless people, which may mean publicity for the school. In fact, many centres have themselves been up-loading clips of their shows on *youtube*, presumably as part of their marketing campaign. Hence, schools spend a lot of time and resources to host this event, trying to make sure things go smoothly. With the hours spent training the children for the event, there is a major opportunity for learning to occur. This article will address how the concert can be made into a major teaching and learning medium.

2.0 PERSPECTIVES

Why hold a concert? Where is the concert held? Who attends the concert? Part of the reasons involved in making decisions about these things is logistics and financial standing. A small-scale center usually cannot afford to hold its concert in an expensive venue.

But in the end the where is not as important as the what -- what is the content of the concert? This is where the reasons why the concert is held will invariably influence the content of the concert. The reason why the content is of interest here is that these are the activities that the children will be involved in, and this is the medium for the potential growth and development of the children. Making the decision on the content will be very influenced by why the concert is held.

If a concert is held primarily to impress parents, and the potential global audience as a marketing tool, a perfect performance will be the emphasis. It will most likely be very grand too. This may work to the children's benefit -- having high standards set for them may challenge them to give their best; the grandeur may expose them to something outside their ordinary experience, and a sense of being part of something great. However, there is also the high likelihood of the process being a very stress-inducing one for both children and teachers. Expecting a number of children to exhibit perfect timing and perfect expression is not quite developmentally appropriate. The presence of a grand setting in front of a large group of strangers may bring high anxiety to the children that they may not be able to handle well.

If a concert is held primarily to fill in the annual activity calendar, the approach is more likely "as long as it is held." Working with children can be very taxing on a regular basis, imagine working with children to perform in public. "As long as it is held" usually means "as long as work is minimized for the teachers." this may translate to children wearing their regular school uniforms and taking turns in groups going on stage to perform simple routines such as songs of group *tilawah*. Although there may be no glitch to the performance, as these are routine things for the children, there is also no challenge. Some centres have been known to have the children perform in their regular school uniform. Those with this mind set would

most likely have the easiest time logistically but it is also perhaps the least exciting for the children, and more worrying, perhaps the least helpful to the child's development.

Within these two extremes, there are myriad reasons of what the concert means to the operator, and hence how it would be translated into experience for the children. One of these reasons is as a means to challenge the children, and to hone their potential in ways that are not primarily cognitive. The act of performing in front of an audience should be capitalized as a means to develop the children's other talents such as public speaking, and to enhance the children's self-esteem. This would mean coming up with performances that are suitable for the children, at both the individual and the group levels. These performances are not too easy, but they are not too difficult either. The expectations on the children are not of exacting professional child performer's standards. Since the process is at least equally important as the product, how the practise sessions are done and the children's experiences during these sessions are also given careful consideration. Each moment is seen as potentially a learning experience, and decisions are made putting the children's needs as the primary concern.

3.0 THE CONCERT CONTENT CONTINUUM

What goes into a concert? There is actually no one right way to hold a concert. When we approach it from the perspective of developmentally appropriate practice, the content of the concert will be the best for that current group of children -- it may not be the most impressive from the audience's perspective, but the children matters most.

So yes, one may have songs, poems, choral speaking, story telling, plays, physical movement, *tilawah* and many other things -- as long as the children's development is the core reason for choosing any one of the activity for the children.

Although the core reason is children's development, making the event interesting to the audience should also be part of the consideration, as it will also influence the children's development. Imagine, as a child, you are performing, and yet, no one except your own parent is paying attention and applauds you. Imagine another scenario where you perform and people are delighted with your performance and really applaud you. That gift on a child's self-esteem is priceless.

A good concert would have something for every child. Ideally, each child is given a chance to shine on stage; quiet children shouldn't be just extras making up the crowd, or singing at the back of the choir line. A good concert challenges the children to give their best in many ways without risking their self-esteem. Taking the audience into consideration, a good concert keeps the audience entertained even when their own child is not on stage, while at the same time allows the children to have a good time, having explored their abilities during the practise sessions. These characteristics may seem ideal, but having a framework to guide the process may help educators to see why, and how, they should be conscientious and embrace the opportunity to nurture the children during this process. A project-based approach fits the description.

4.0 PROJECT-BASED APPROACH

In a project-based approach, students learn through the realization of a project. Through the process of completing the project, students will acquire the relevant knowledge, skills and attitudes.

Project-based approach is not new in education. It is applicable at all levels including early childhood education. Many educators in the United States, for example, embrace the project approach as a manifestation of the multiple intelligences framework (see Katz & Chard, 2000). The Reggio Emilia school is also considered a manifestation of project-based learning. Children work on specific projects, with the degree of freedom afforded to the children varying but leaning towards child-led projects (eg. Mitchell *et. al.*, 2009). The teachers facilitate and guide the process, encouraging the different multiple intelligences of the child -- the linguistic, kinesthetic, visuo-spatial, logico-mathematic, musical, interpersonal, intrapersonal and naturalistic intelligences. The emphasis is not just on the finished product but on the learning processes that the children go through as they strive to complete the project.

A project is a “problem that serves to organize and drive activities” (Blumenthal *et. al.*, 1991; p 371) that should end up with an artifact in many possible forms, such as a video clip, a performance, or a song. In this sense, the annual concert can fit into the project approach. The concert encapsulates the totality of the artifact produced; with the production of the concert being the learning processes that both teachers and students will go through. If done appropriately, it will be a learning process for both teachers and students.

5.0 THE AZZARIF *IHTIFAL* EXPERIENCE

In this section, the years of experience in organizing annual concerts are analyzed and presented as a grounded way to present the manifestation of project-based learning in early childhood settings.

Azzarif is a privately owned Islamic early childhood centre, using English as its main medium of instruction. It has gone from 12 children in its inception year to its full capacity of 60 children by the fifth year, from 2 full-time teachers to 5 full-time teachers, with the second author as the manager-proprietor, and the first author as the curriculum advisor.

The annual concert is called the *ihlifal* by the centre. *Ihtifal* means celebration, and that has been the basic premise of the centre -- that the event is a celebration of the children and their achievements. It celebrates children being children, it celebrates the joy of performing in front of beloved audience, it celebrates their friendship, it celebrates being Muslims.

The approach is actually a modified project-based on two different levels -- at the teacher development level and at the children’s development level. The management considers this a huge opportunity to develop the skills of the teachers in addition to developing the children.

With that in mind, the preparation of the *ihlifal* begins with a conceptualization of a theme. This process has been done differently in different years -- brainstorming session among the staff and the curriculum advisor or top-down by the management, and over time, what has worked for the centre was the advisor would suggest up to three themes to the centre, meet

with the staff and management, and in a form of *syura* finalized the themes for that year. Then events were drawn up, beginning with a brainstorming session of possible performances and a discussion on the pool of students for that particular year. Everyone went back to ponder more and a follow-up discussion is done to come up with the programmes. Some of the themes that have been drawn up are “*Hijrah: Changing to be better*”, “We love Allah” and “The Garden Green.”

Depending on the group of students, the performances have varied over the years. But several guiding principles remain consistent. Each child is to go on stage at least twice; with the child actually having to do something. This does not include the graduation appearance and the finale song. Priority for leading performances are given to the 6 year-olds as they will be moving on to primary school, where the chances on taking an active part in public performances are small compared to during the kindergarten years. What the child could do and what the child would be able to do were both given equal weight in assigning children to performances or adapting the performances to the children. Nothing is cast in stone, this reduces the anxiety for both children and teachers. In some cases, children suffered stage fright. In those situations, they were not forced to continue, and if need be, someone would step in. In most cases, they were given the option to remain onstage without doing anything or to go off-stage if they wanted to.

The performances should have meaning to the children. Hence, at the onset of the preparation, children are usually exposed to the theme of the concert through songs or stories. For instance, when an adaptation of Snow White was done, children learned the story of Snow White and got to know the characters before any actual rehearsal was done. When children learn the lyrics to a song, intermittently the children are drawn into discussions of the meaning of the song. Since the songs chosen go together with a sketch related to the theme, there is also a concrete scenario for children to relate to. Occasionally, children are encouraged to work on art and craft activities related to the theme, or the particular performance they are working on.

The performances are usually inspired by events around the children. In one particular year, when Gaza was being bombarded, a freeze mob on Gaza was done. Two children took turns reciting poems. Other children became actors who pantomimed acts associated with atrocities of war. It ended with a group song on *jihad*. The discussions held with the children over the issue were around being concerned about others, even those far away, and the reasons why war is not good. Children being children, some extended the sketch by being overly zealous in their rough-and-tumble play. So, a learning opportunity was seized in terms of the ethics of playing with each other, and differentiating between play-acting and playing.

Practice sessions are done in small groups and also in big groups. The small group sessions allow the children to hone their skills, and the teachers to work with individual children. The big group sessions allow the children to see the work of their friends. Most often than not, we have observed that the children quickly learned to do what the others were doing. We would have parents telling us how confused they were because their child seemed to be in everything i.e., they would practise so many things at home. What the children were doing was acting out what they had seen their friends done. This is also why having performances at their level of development is vital -- since it is naturally engrossing to them, they become more motivated to learn to do something, even the parts not assigned to them. This is one of the advantages of project-based learning -- it both sustains and supports learning, it becomes an intrinsic motivation tool (Blumenfeld *et. al.*, 1991).

Another characteristic of the Azzarif *ihitfal* is that teacher's presence on the day itself is minimized. Because of their developmental level, there is a teacher on stage to assist them, but the performances belong to the children. Recitation of the opening doa is done by a child. The master of ceremony role is also handled by children. The children were given the scripts, coaching sessions were done, but on the day itself, the stage belongs to the children. And so far, the children have managed to outshine themselves. In some years, the role has been given to initially shy children, and only the parents would thank the teacher for believing in their child -- as only they would appreciate the drastic changes in their child. Most other parents thought the child was naturally gifted in public speaking.

In line with the Islamic environment that the centre aims to foster, physical contact between boys and girls are not allowed. Hence, even when acting out the part of mother and son, no touching is done. Children learn to show the act of caring in other ways.

How do all this become a project-based approach to the children? The children were initially presented with the problem -- showing their talent in front of a large audience made up of their family members and other people they do not know. The solution is in their performances, and they are invited to share what they would like to do.

Once they are assigned the performances, they are encouraged to interpret their role. One sketch, for example, revolved around being fashionable *muslimah*. It involved a mini fashion show of *syariah*-compliant dressing. The children involved were encouraged to find their own style in doing the catwalk. It is worth noting that some of them were not given lines because they were extremely shy, and on the surface would not be suitable candidates to go on the runway and had all eyes on them on that particular moment. But it was exactly for this reason that the children were chosen. That moment "on the runway" was their moment to shine, and shone they did. The teachers coached them on different ways to walk, and they were given the freedom to try different ways. It worked out better than planned because they did not turn into extrovert persons and strutted on stage, instead their quiet personality came across as they walked confidently and demurely, alone on stage for that particular moment. And then the radiant smiles broke out as one by one, they finished walking and formed a line of *hijabis*. This particular sketch underlined the need to dress accordingly, covering one's aurat, but at the same addressing children's desire to feel pretty. This mixed group of outgoing and shy girls ended the sketch with a rap on being Muslims.

Post-concert day, the children were given the opportunity to watch their performances, and to discuss it in school. This was the de-briefing. Conversations on children in the following school year indicated that the children remembered the things discussed, as they were anchored to their actions.

6.0 CONCLUSION

The project-based learning implemented through the concert has to be essentially adapted to the Malaysian culture. The children were not given total freedom yet they were not rigidly dictated. However, exploring the concepts and seizing learning opportunities instead of simply focusing on the outcome i.e., perfect performance, have allowed the children opportunities for meaningful learning beyond the daily classroom lessons. Besides the obvious boost to their self-confidence, when more control is conceded to the children, they

also learned how to cooperate with each other, and how to help each other to make the performance go well. They were excited when they received their lines, and strove to read them, not being deterred by the length of words that obviously had to go beyond the words they found in their reading skills books. They learned to respect and to support each other, taking turns watching and cheering. They learned to be responsible, helping the teachers placing the props when needed and storing them away properly afterwards. With so many opportunities for learning and development that could happen in the process of organizing the annual concert, educators should take a second look at this event and instead of dreading the work that comes with it, relish the potential growth and development that could happen -- to both the children and the teachers.

REFERENCES

- Blumenfeld, P. C., Soloway, E., Marx, R. W., Krajcik, J. S., Guzdial, M., & Palincsar, A. (1991). Motivating project-based learning: Sustaining the doing, supporting the learning. *Educational Psychologist*, 26, 369-398.
- Katz, L. & Chard, S. (2000). The project approach: an overview. In J. L. Roopranine & J. E. Johnson (Eds.). *Approaches to early childhood education*, Columbus, OH: Merrill. p. 175-190.
- Mitchell, S., Foulger, T. S., Wetzell, K., & RTHKEY, c. (2009). The negotiated project approach: Project-based learning without leaving the standards behind. *Early Childhood Education Journal*, 36, 339-346.

MODUL PENGAJARAN SAINS BERDASARKAN MODEL KONSTRUKTIVIS BERSEPADU

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ABSTRAK

Artikel ini membincangkan isu sekularisme dalam pendidikan sains di Malaysia dan perlunya pengislamisasian ilmu sains dengan penerapan Al-Quran dan Al-Sunnah. Pengislamisasian ilmu merupakan suatu pendekatan yang menggarap elemen tauhid melalui pemikiran sains Islam dalam kurikulum sains sebagai kesinambungan ke arah mewujudkan masyarakat seimbang yang menghayati dan membangunkan ilmu secara bersepadu selari dengan Falsafah Pendidikan Kebangsaan (FPK). Bagi tujuan ini, pembinaan Model Konstruktivis Bersepadu hasil gabungan Model Konstruktivis 5E (Atkin, 1987) dan Model Pendidikan Bersepadu (Tajul, 1988) telah dicadangkan bertujuan untuk menyatukan aqidah tauhid dengan sains. Modul yang dibangunkan berteraskan model pendidikan ini boleh digunakan oleh guru-guru sains di sekolah-sekolah di Malaysia demi melahirkan pelajar yang berilmu pengetahuan serta mempunyai aqidah tauhid yang kukuh.

ABSTRACT

This article discusses about secularism of science education in Malaysia and the need an effort to insert Islamic value into knowledges (*pengislamisasian*) by referring Al-Quran and Al-Sunnah as the core of knowledge. Integration of Islamic value into (*pengislamisasian*) science subject is an approach that captured the elements of the Islamic faith through scientific thinking in the science curriculum as a continuation towards creating a balanced society to appreciate and develop knowledge integrated manner in line with the National Education Philosophy. To achieve the objective, construction of Integrated Constructivist (*Model Konstruktivis Bersepadu*) from combination of two instructions model which are Constructivist 5E Model and Integrated Education Model (Tajul, 1988) seeks to consolidate the faith of oneness of Allah and science. This module-based educational model can be used by science teachers in schools in Malaysia to produce graduates who are knowledgeable and have strong faith beliefs.

Keywords: secularism, science education, Integrated Constructivist Model, Constructivist 5e Model, Integrated Education Model, Instruction Module

1.0 PENGENALAN

Malaysia sebagai sebuah negara yang sedang membangun, perlu menyediakan masyarakat yang berilmu pengetahuan tinggi, saintifik, progresif, kritis, kreatif dan berinovatif juga berakhlak mulia serta memiliki keimanan kepada Allah yang mantap. Ini selari dengan Falsafah Pendidikan Kebangsaan, pendidikan bertujuan untuk meningkatkan potensi individu secara menyeluruh dan seimbang dari aspek jasmani, emosi, intelek dan rohani (JERI) berdasarkan kepercayaan dan kepatuhan kepada Tuhan. Menurut Nor Hayati (2005), setiap bidang pendidikan negara harus memikul cabaran dalam menyeimbangkan tuntutan semasa iaitu menghasilkan sumber tenaga mencukupi untuk pembangunan sains negara berlandaskan tuntutan agama. Firman Allah S.W.T dalam Al-Quran surah Hud ayat 61 yang bermaksud:

“..... Dialah yang menjadikan kamu daripada bahan-bahan Bumi, dan mengkehendaki kamu memakmurkannya. oleh itu mintalah ampun kepada Allah dari perbuatan syirik, kemudian kembalilah kepadanya dengan taat dan tauhid. Sesungguhnya Tuhanku sentiasa dekat, lagi sentiasa memperkenankan permohonan hambaNya”.

(Hud 11 : 61)

Namun begitu, pembangunan negara dan perkembangan ini seolah-olah tidak dirasai dan tidak membawa sebarang perubahan terhadap umat Islam dan pemikirannya. Masih lagi terdapat dalam kalangan umat Islam yang menyanjung tradisi keilmuan sains yang dibina oleh dunia Barat, yang akibatnya menjadikan ummah terikut-ikut dengan falsafah sains yang terpisah daripada nilai-nilai ketuhanan. Hasilnya, lahirlah ramai pakar dalam sains dan teknologi tetapi tidak ramai yang berpegang teguh pada Al-Quran dan Al-Sunnah. Golongan yang hanya pakar dari segi intelektual ini hanya berjaya duniawi dan tidak ukhrawi. Pembangunan intelektual yang tidak diiringi dengan kekudusan rohani akhirnya akan melahirkan robot-robot yang begitu bijak di dalam menganalisa segala pengkajian dan maklumat tetapi realitinya jiwanya kosong. Kekosongan roh dalam jiwa intelektual ini berlaku akibat pemisahan ilmu dan aqidah dalam proses pendidikan yang dikenali sebagai sekularisme.

2.0 SEKULARISME DALAM SISTEM PENDIDIKAN

Dunia kini semakin mengejar pembangunan menjadikan sains sebagai alat untuk mengubah alam sekitar melalui pembangunan dan pencapaian bersifat kebendaan. Pengajaran ilmu sains mula dasingkan dari ilmu ketuhanan iaitu lebih bersifat materialistik dengan meninggalkan akhirat dan unsur-unsur spiritual (Yahaya dan Azhar, 2010). Sistem pendidikan formal di Malaysia yang mempunyai silibus yang telah ditetapkan dan diselaraskan menjadi medium utama dalam menyampaikan ilmu juga amat menekankan aspek isi kandungan dan kemahiran serta kurang menyentuh aspek keimanan ini. Sedangkan menurut Nur Eryanti (2012), ilmu berfungsi menghubungkan manusia dengan Tuhan sebagai Pencipta dan menjadi pembeza utama antara manusia dan haiwan. Malangnya, arus globalisasi telah menularkan fahaman sekularisme dalam sistem pendidikan di mana fungsi ilmu untuk mendekatkan diri dengan Pencipta semakin dipinggirkan apabila ilmu akademik dilihat berfungsi semata-mata untuk mencurahkan maklumat sahaja. Konsep penyingkiran nilai ketuhanan inilah yang dinamakan sekularisme.

Fahaman sekularisme dalam sistem pendidikan berlaku di mana fungsi ilmu untuk mendekatkan diri dengan Pencipta semakin dipinggirkan apabila ilmu akademik dilihat berfungsi semata-mata untuk mencurahkan maklumat sahaja. Kesannya, Falsafah Pendidikan

Kebangsaan (FPK) yang berhasrat untuk melahirkan pelajar yang seimbang dalam JERI tidak berjaya dicapai. Pembangunan insaniah haruslah dititikberatkan dan tidak hanya menumpukan kepada pembangunan aspek fizikal dan intelek sahaja. Hasil kajian juga mendapati kurikulum sains di Malaysia menunjukkan bahawa isi pengetahuan sains yang disampaikan hanya terbatas kepada ilmu akal dan tiada kesepaduan antara ilmu aqli (akal) dan ilmu naqli (wahyu) (Nor Hayati, 2005).

Cabaran utama yang perlu dipikul oleh sektor pendidikan sains negara adalah untuk menyeimbangkan tuntutan semasa, iaitu menghasilkan sumber tenaga yang mencukupi untuk pembangunan sains dan teknologi negara di samping tuntutan agama yang bertujuan menghasilkan insan yang sahsiah mulia dan mampu memikul tanggungjawab terhadap diri sendiri, masyarakat dan negara (Kementerian Pendidikan, 1993). Menurut Nik Azis (1996), penerapan nilai murni tanpa dorongan iman dianggap kurang lengkap kerana menurut pandangan Islam, dorongan iman merupakan asas dalam membangunkan nilai murni. Analisis berhubung penekanan pengajaran dan pembelajaran Sains Kurikulum Bersepadu Sekolah Rendah (KBSR) menunjukkan bahawa Sains KBSR masih mempunyai ciri-ciri sains moden meskipun terdapat unsur penerapan nilai murni dalam kurikulumnya. Antara cirinya yang menyebabkan mirip kepada sains moden ialah tujuan pengkajian fenomena alam semulajadinya hanya terbatas pada mengenali alam semulajadi itu sahaja dan tidak sampai kepada mengenali Pencipta alam berdasarkan data-data empirik. Menurut Nor Hayati (2005), analisis ke atas kurikulum sains di pendidikan rendah, menengah, dan tinggi menunjukkan bahawa isi pengetahuan sains yang disampaikan hanya terbatas kepada ilmu akal sahaja tanpa dikaitkan dengan aspek kepercayaan kepada Tuhan. Hasilnya ilmu yang diperoleh adalah ilmu empirik yang putus daripada ilmu ketuhanan (Nasr, 1994). Justeru, ia amat memerlukan kepada proses pengislamisasian ilmu sains.

3.0 PENGISLAMISASIAN ILMU SAINS

Kekeliruan dan kegagalan umat Islam mempersatukan aqidah tauhid dengan sains mengakibatkan wujudnya gejala pemikiran sesat dan suasana yang tidak sihat dalam kalangan umat Islam sendiri. Sering timbul pertanyaan samada sains dan teknologi yang dikecapi oleh manusia moden hari ini mempunyai kaitan dengan Islam. Persoalan sebegini perlulah dijawab dengan kembali merujuk kepada ajaran Islam yang suci lagi lengkap dan syumul. Justeru khazanah Islam yang sedia mampu dalam menjawab segala persoalan perlu didalami khususnya melalui bidang pendidikan sains (Abu Bakar, 2012). Oleh itu, peranan yang perlu dimainkan oleh para pendidik sangatlah besar dalam mendidik masyarakat daripada terpengaruh dengan falsafah dan fahaman sekular yang membawa umat ke jalan yang semakin jauh daripada mendapat petunjuk Ilahi. Para pendidik perlulah melaksanakan proses pengajaran dan pembelajaran yang menyepadukan Al-Quran dan Al-Sunnah di dalam bilik darjah agar kesyumulan Islam itu dapat dimanifestasikan melalui ilmu sains itu sendiri.

Pengislamisasian ilmu merupakan suatu pendekatan yang akan menggarap elemen tauhid melalui pemikiran sains Islam dalam kurikulum sains sebagai kesinambungan ke arah mewujudkan masyarakat seimbang yang menghayati dan membangunkan ilmu secara bersepadu (Yahaya dan Azhar, 2010). Al-Quran adalah kitab Allah yang menjelaskan setiap sesuatu ilmu kepada manusia. Firman Allah dalam surah Yusuf ayat 111:

“Sesungguhnya pada kisah-kisah mereka itu terdapat pengajaran bagi orang-orang yang mempunyai akal. Al-Quran bukanlah cerita yang dibuat-buat, akan tetapi membenarkan

(kitab-kitab) yang sebelumnya dan menjelaskan segala sesuatu, dan sebagai petunjuk dan rahmat bagi kaum yang beriman”.

(SurahYusof 12:111)

Al-Quran dan Al-Sunnah yang sarat dan padat dengan rujukan menganjur dan mendorong umat Islam agar menuntut ilmu, mempelajari, menganalisis dan menggunakan akal semaksimal mungkin untuk mendapat manfaatnya (Alias, 2010). Ia juga berperanan dalam memotivasikan umat Islam agar berusaha meneroka dan membongkarkan pelbagai cabang ilmu berteraskan akal, sains tabii dan sains berbentuk teknikal. Menurut Nur Eryanty (2012) gabungan ilmu ketuhanan dan ilmu sains perlu ada dalam penstrukturan kurikulum dalam merangka sukatan mata pelajaran sains. Perlaksanaannya mampu meningkatkan keimanan pelajar dan diharap melahirkan saintis dan modal insan dengan membangkitkan kesedaran terhadap kebesaran Allah (Yahaya dan Azhar, 2010). Melaluinya, pelajar akan menyedari peranan dan matlamat kehadiran manusia di alam ini adalah berfokus kepada dua tugas utama iaitu melakukan ibadah kepada Allah dan memakmurkan planet bumi (Zakaria, 2009) seperti firman Allah dalam surah Al- Dhariyat ayat 56:

“Tidak Aku jadikan jin dan manusia melainkan untuk melakukan ibadah kepada-Ku”

(Al-Dhariyat 51:56)

Justeru itu, pendekatan yang boleh digunakan untuk mengatasi masalah ini ialah sains di sekolah perlu diajar dengan pembuktian dari Al-Quran dan Al-Sunnah sebagai nilai tambah untuk melahirkan masyarakat yang mempunyai pegangan akidah dan tauhid yang kukuh.

4.0 KEPERLUAN PENERAPAN AL-QURAN DALAM PENDIDIKAN SAINS

Sains adalah satu kumpulan ilmu yang tersusun dan teratur berkaitan dengan kajian-kajian fenomena-fenomena di dalam alam tabi'ie yang bernyawa dan yang tidak bernyawa dengan kaedah yang objektif melalui kajian eksperimen dan cerapan bagi menghasilkan prinsip-prinsip yang boleh dipercayai serta boleh diuji kebenarannya (Sulaiman, 1993). Banyak rahsia perihal alam semesta dapat ditemui dalam ilmu sains. Melalui sains, manusia dapat menggunakan pancainderanya untuk memerhatikan alam dan menggunakan akalnya untuk memikirkan tentang rahsia keagungan dan kebesaran Allah s.w.t untuk lebih mendekati diri dengan Pencipta. Hal ini dinyatakan dengan jelas dalam Al-Quran yang menyeru manusia supaya memerhatikan alam dan berfikir di atas segala ciptaan Allah s.w.t dimuka bumi ini. Al-Quran mengandungi ilmu pengetahuan yang yakin dan jitu serta tidak terdapat sebarang percanggahan di dalamnya. Allah SWT berfirman dalam surah An-Nisa' ayat 82:

“Maka apakah mereka tidak memperhatikan Al-Quran? Kalau kiranya Al-Quran itu bukan dari sisi Allah, tentulah mereka mendapat perselisihan yang banyak di dalamnya”.

(An-Nisa' 4:82)

Penerokaan sains yang sejajar dengan pendekatan Al-Quran, secara tidak langsung akan dapat menyingkap tanda-tanda kekuasaan Allah yang telah menjadikan alam semesta. Dengan cara ini manusia dapat mengenali Tuhannya setelah menyedari hakikat kejadian dan kedudukannya sebagai hamba Allah (Akmaliza, 2008). Menurut Sulaiman (1979), dalam tamadun Islam, alam tabii yang menjadi fokus pengajian ilmu sains dianggap sebagai kitab Allah yang terbuka atau kitab kedua yang mengandungi tanda-tanda (rahsia-rahsia) kebesaran dan kebijaksanaan Allah. Justeru, segala penemuan sains dapat membuka fikiran manusia ke arah memikirkan kebesaran dan kebijaksanaan Allah, Tuhan Pencipta seluruh alam semesta. Kandungan Al-Quran merangkumi pelbagai jenis ilmu pengetahuan. Al-Quran menyentuh

beberapa tema saintifik di dalamnya seperti biologi, astronomi, meteologi, botani, zoologi dan kosmologi (Akmaliza, 2008). Terdapat banyak ayat di dalam Al-Quran yang menggalakkan manusia supaya melihat serta memerhati alam sekitarnya dan seterusnya berfikir akan kekuasaan dan keagungan Allah. Antaranya, firman Allah dalam surah Adz-Dzariyaat ayat 20-21:

“Dan pada bumi ada tanda-tanda (yang membuktikan keesaan dan kekuasaan Allah) bagi orang-orang (yang mahu mencapai pengetahuan) yang yakin. Dan juga pada diri kamu sendiri, maka mengapa kamu tidak mahu melihat serta memikirkan (dalil-dalil dan bukti itu) (Adz-Dzariyaat 51: 20-21)

Penyuburan elemen tauhid menerusi ilmu sains mampu menyemai semangat ke dalam jiwa umat Islam untuk meneroka. Ini terbukti semasa era kegemilangan tamadun Islam zaman silam yang telah mengadaptasi unsur tamadun lain ke dalam rangka tamadun Islam yang telah mengukuhkan peradaban Islam pada zaman silam (Alias Azhar, 2010). Inovasi pengajaran dan pembelajaran dengan mengaplikasikan falsafah sains Al-Quran mampu menyuntik elemen kesedaran dan keinsafan ke dalam diri pelajar-pelajar di samping guru dapat meletakkan semula ilmu sains dalam landasan keilmuan yang sebenar iaitu sains memerlukan elemen bersepadu. Kurikulum bersepadu ialah kurikulum yang mengintegrasikan prinsip Al-Quran dalam sukatan mata pelajaran dengan objektif untuk melahirkan ilmuan yang beriman dan bertaqwa. Pendekatan dengan menerapkan prinsip tauhid ini dilihat berpotensi untuk diterapkan dalam kurikulum sains (Yahaya dan Azhar, 2010). Firman Allah s.w.t dalam surah Al- Baqarah yang bermaksud:

“Kitab Al-Quran ini, tidak ada sebarang syak padanya (tentang datangnya dari Allah dan tentang sempurnanya); ia pula menjadi petunjuk bagi orang-orang yang (hendak) bertakwa” (Al- Baqarah 2: 2)

Oleh yang demikian, umat Islam perlu kembali kepada ajaran Islam yang sebenar dengan melahirkan insan yang bertaqwa (Zakaria, 2012). Menurut Kamal (1984), beliau telah mencadangkan satu kaedah agar ilmu yang diajar dikembangkan mestilah dipadukan dengan iman kepada Allah, ilmu yang bermanfaat, amal yang soleh, dan akhlak yang mulia, yang semuanya berdasarkan doktrin Tauhid dalam mempelajari, mengajar dan mengembangkan ilmu pengetahuan. Justeru penerapan ini amat memerlukan sebuah modul pengajaran yang dapat menerapkan aqidah ke dalam proses pengajaran dan pembelajaran sains.

5.0 MODEL KONSTRUKTIVIS BERSEPADU

Model Konstruktivis Bersepadu pada dasarnya adalah Model Konstruktivis 5E (Atkin, 1987) yang kemudiannya diintegrasikan bersama Model Pendidikan Bersepadu (Tajul,1988). Model Konstruktivis 5E iaitu fasa, “Engage”, “Explore”, “Explain”, “Elaborate”, “Evaluate”. Berikut merupakan penerangan bagi setiap fasa Model 5E:

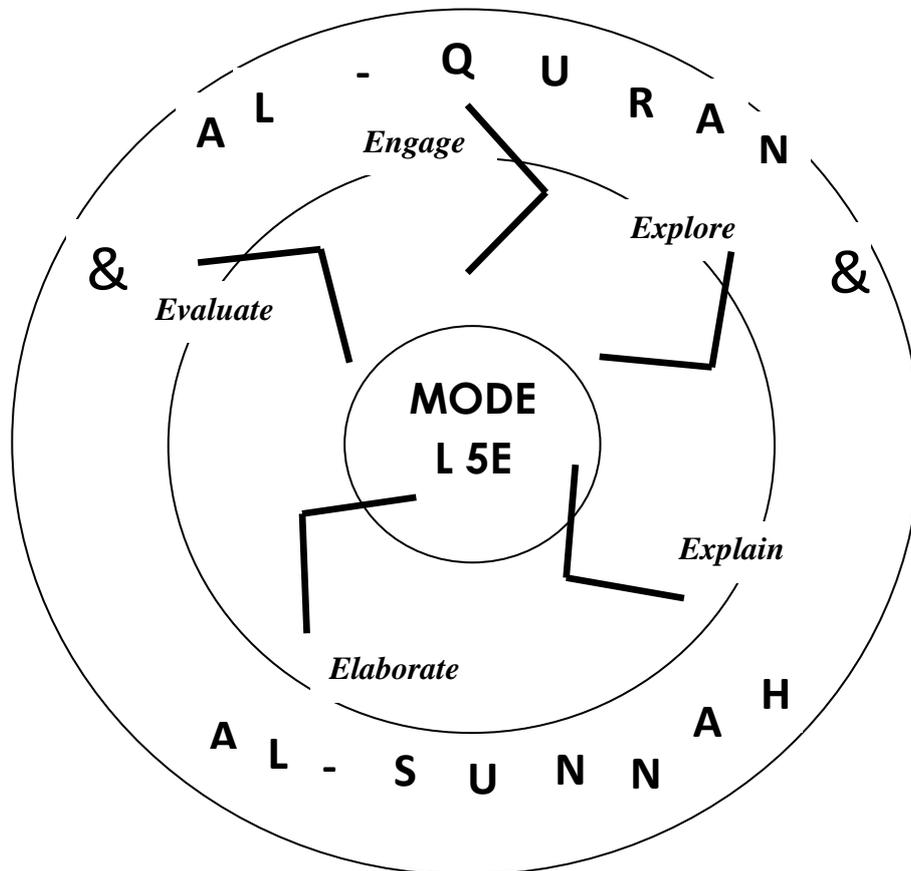
“Engage”	Fasa ini merupakan permulaan dalam pengajaran dan pembelajaran. Aktiviti semasa fasa ini perlu adanya kesinambungan antara pembelajaran lalu dan pembelajaran yang akan dipelajari, menjangkakan aktiviti, dan menarik perhatian dan tumpuan pemikiran pelajar kepada pembelajaran yang akan dipelajari. Pemikiran pelajar perlu tertumpu sepenuhnya (<i>mentally engaged</i>) kepada konsep, proses, dan kemahiran yang akan diterokai.
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<i>“Explore”</i>	Fasa ini akan menyediakan pelajar dengan asas biasa seperti pengalaman di mana mereka mengenal pasti dan membangunkan konsep semasa, proses, dan kemahiran. Semasa fasa ini, pelajar secara aktif meneroka persekitaran mereka atau memanipulasi bahan.
<i>“Explain”</i>	Fasa ini memfokuskan pemerhatian pelajar pada aspek tertentu semasa pengalaman penglibatan dan penerokaan mereka dan memberi peluang kepada mereka untuk menyuarakan pemahaman konsep mereka, atau mempamerkan kemahiran atau tingkah laku mereka. Disamping itu, fasa ini juga memberi peluang kepada guru untuk menerangkan definisi bagi konsep, proses, kemahiran, atau tingkah laku.
<i>“Elaborate”</i>	Fasa ini memanjangkan pemahaman konsep pelajar dan memberi peluang kepada pelajar untuk mempraktikkan kemahiran dan tingkah laku. Melalui pengalaman baru, pelajar mampu membangunkan pemahaman yang lebih mendalam dan lebih luas dengan kemahiran yang mencukupi.
<i>“Evaluate”</i>	Fasa ini menggalakkan pelajar untuk menilai kefahaman dan kebolehan mereka serta memberi peluang kepada guru untuk menilai kemajuan pelajar seiring objektif pembelajaran yang dikehendaki.

Model 5E adalah satu model pembelajaran konstruktivis yang dipercayai mampu memberi memberi impak yang positif terhadap pengajaran dan pembelajaran atas kemampuannya meningkatkan kefahaman pelajar dalam pembelajaran sains. Menurut Bybee (1997), kebanyakan kajian yang telah dijalankan menunjukkan bahawa Model Konstruktivis 5E merupakan satu model pengajaran yang berkesan bagi mengubah pelajar daripada seorang penerima maklumat yang pasif daripada guru mereka kepada seorang pelajar aktif semasa pengajaran dan pembelajaran.

Manakala model dalam Pendidikan Islam ataupun dikenali sebagai Model Pendidikan Bersepadu (Tajul 2002) menjadikan wahyu iaitu Al-Quran dan Al-Sunnah sebagai asas utama. Model Pendidikan Bersepadu menitikberatkan pendekatan kesepaduan daripada segi bahan dan strategi pengajaran dan pembelajaran. Menurut Tajul (2002), matlamat pendidikan sepadu adalah untuk melahirkan insan yang cemerlang dari segi intelek, dan tinggi ketaqwaan terhadap Allah S.W.T. Bagi memenuhi Konsep Pendidikan Sepadu, pengisian ilmu akan dilihat dari tiga unsur utama iaitu pengisian roh, akal, dan pengisian jasmani. Pendidikan Sepadu merupakan keserasian dan penghayatan ilmu, iman, dan amal (Tajul, 2002). Oleh itu, Model Pendidikan Bersepadu menjadikan wahyu Al-Quran dan Al-Sunnah sebagai teras utama dalam pendidikan dengan menggunakan pendekatan kognitif dan afektif untuk melahirkan manusia yang bertaqwa kepada Allah. Menurut Tajul (2002), Islam menitikberatkan penghayatan, pembinaan dan amalan akhlak yang mulia. Akhlak dalam Islam merupakan intisari matlamat pendidikan dan asas pembentukan peribadi insan yang terpuji dan beradab. Akhlak dalam Islam yang berasaskan ilmu wahyu dan bersifat kekal. Kedua-dua model pengajaran ini digabungkan oleh penyelidik dan terhasillah sebuah model

pengajaran yang dinamakan Model Konstruktivis Bersepadu. Rajah 1 menjelaskan kerangka model yang dihasilkan oleh penyelidik. Berdasarkan model pengajaran yang telah dibina, model ini boleh dijadikan teras pembangunan modul pengajaran dan pembelajaran di sekolah sebagai usaha untuk menghapuskan sekularisme dalam pendidikan sains seterusnya menyatukan aqidah tauhid dan sains dengan memberi kesedaran pelajar terhadap hubungkait sains dengan Maha Pencipta (Allah S.W.T).



Rajah 1 Model Konstruktivis Bersepadu

6.0 MODUL PENGAJARAN BERDASARKAN MODEL KONSTRUKTIVIS BERSEPADU

Mohd Noah (2005) menyatakan bahawa modul dapat membantu guru mengajar sesuatu tajuk melalui pelbagai aktiviti tersusun untuk mencapai objektif yang telah ditetapkan. Penggunaan modul juga dapat menarik minat pelajar sekolah terhadap terhadap pengajaran dan pembelajaran serta melatih pelajar sekolah bersikap terpuji. Menurut Zulkepli (2010), terdapat dua jenis modul iaitu satu modul pengajaran dan satu lagi ialah modul pembelajaran. Modul pembelajaran adalah panduan pembelajaran sendiri yang mana penggunaannya merasakan ada peluang untuk maju dengan belajar sendiri (Shaharom, 1994). Modul pengajaran pula adalah modul yang direka khas untuk guru yang membolehkan guru mengajar dengan lebih berkesan. Ia dilengkapi dengan isi kandungan mata pelajaran khusus kepada sesuatu topik. Modul mengandungi strategi-strategi, tindakan-tindakan dan gerak kerja yang boleh diselenggarakan oleh guru bersama-sama penilaian isi kandungan mata pelajaran tersebut (Norijah, 1997). Hasil kajian mendapati guru menerima baik

penggunaan modul kerana ia dapat memudahkan mereka membuat perancangan dengan syarat modul yang dihasilkan baik dan sesuai. Guru juga merasakan tidak terikat dengan penggunaan modul malah mereka mengatakan pengajaran lebih tersusun, pelajar banyak bertanya, dan pelajar banyak berfikir. Modul juga dapat membantu guru dalam merancang pengajaran di samping itu ia lebih tersusun (Sidek, 2005).

Justeru modul pengajaran berdasarkan Model Konstruktivis Bersepadu bertujuan untuk menyatukan aqidah tauhid dengan sains. Modul ini boleh digunakan oleh guru-guru sains di sekolah-sekolah di Malaysia demi melahirkan pelajar yang berilmu pengetahuan serta mempunyai aqidah tauhid yang kukuh selaras dengan hasrat Falsafah Pendidikan Kebangsaan iaitu;

“Pendidikan di Malaysia adalah suatu usaha berterusan ke arah memperkembangkan lagi potensi individu secara menyeluruh dan bersepadu untuk mewujudkan insan yang seimbang dan harmonis dari segi intelek, rohani, emosi dan jasmani berdasarkan kepercayaan dan kepatuhan kepada Tuhan. Usaha ini adalah bagi melahirkan rakyat Malaysia yang berilmu, bertanggungjawab dan berkeupayaan mencapai kesejahteraan diri serta memberi sumbangan terhadap keharmonian dan kemakmuran masyarakat dan negara”

(Kementerian Pendidikan Malaysia, 2012)

Berikut merupakan contoh isi kandungan di dalam Modul Konstruktivis Bersepadu. (Rajah 2 dan Rajah 3). Contoh ini merupakan gambaran modul yang dibina oleh penyelidik. Modul tersebut menggunakan Model Konstruktivis Bersepadu.

BAB 2 : NUTRISI

1) FASA “ENGAGE”

- Guru menunjukkan video mengenai pemakanan seimbang
- Di akhir video memaparkan petikan ayat Al-Quran.



﴿ وَإِذِ اسْتَسْقَىٰ مُوسَىٰ لِقَوْمِهِ فَقُلْنَا اضْرِبْ بِعَصَاكَ الْحَجَرَ فَانْفَجَرَتْ مِنْهُ اثْنَتَا عَشْرَةَ عَيْنًا قَدْ عَلِمَ كُلُّ أُنَاسٍ مَّشْرِبَهُمْ ۖ كُلُوا وَاشْرَبُوا مِن رِّزْقِ اللَّهِ وَلَا تَعْتُوا فِي الْأَرْضِ مُفْسِدِينَ ﴿٦٠﴾

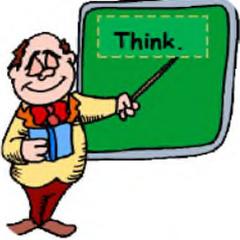
“Dan (ingatlah) ketika Nabi Musa memohon supaya diberi air untuk kaumnya, maka Kami berfirman: "Pukulah batu itu dengan tongkatmu!", (ia pun memukulnya), lalu memancarlah dari batu itu dua belas mata air; Sesungguhnya tiap-tiap satu puak (di antara mereka) telah mengetahui tempat minumannya masing-masing. (dan Kami berfirman): "Makanlah dan minumlah kamu dari rezeki Allah yang diberikan itu, dan janganlah kamu melakukan kejahatan dengan berbuat kerosakan di muka bumi".

(Surah Al-Baqarah 2:60)

Rajah 2 Contoh modul (Fasa “Engage”)

2) FASA "EXPLORE"

- Guru mencungkil idea pelajar untuk mengenalpasti "*prior knowledge*" pelajar.
- Pelajar dibahagikan ke dalam beberapa kumpulan untuk berbincang dan berkongsi pendapat bersama rakan.



• **Contoh soalan:**

1. Apakah mesej yang ingin di sampaikan dalam video sebentar tadi?
2. Apakah pengajaran dan peringatan dari ayat Al-Quran dalam video sebentar tadi?

• **Jawapan:** Guru menerima sebarang jawapan pelajar yang bersesuaian untuk mencungkil *prior knowledge* pelajar.

3) FASA "EXPLAIN"

- Guru menanyakan soalan dan memberikan masa untuk pelajar berfikir
- Pelajar secara berkumpulan perlu menjawab soalan yang diutarakan oleh guru. Setiap kumpulan perlu menjawab soalan yang berbeza antara satu kumpulan dengan kumpulan yang lain. Wakil pelajar dari setiap kumpulan perlu membentangkan jawapan di hadapan kelas.

Rajah 3 Contoh modul (Fasa "*Explore*" dan "*Explain*")

Berdasarkan Rajah 2 dan Rajah 3, Modul Konstruktivis Bersepadu yang dibangunkan mengintegrasikan ayat-ayat Al-Quran yang bersesuaian ke dalam Model 5E. Kaedah pengajaran dan pembelajaran ini juga diharap ini mampu menjelaskan kepada pelajar bahawa semua ilmu akal yang dipelajari termasuk ilmu sains sewajarnya disepadukan dengan agama untuk mencapai hasil yang lebih bermakna. Selain itu, pendekatan ini mampu menangkis segolongan yang berpendapat sains itu hanyalah ilmu sekular dari Barat manakala ilmu agama itu tiada kaitan dengan sains. Jurang pendapat dan persepsi antara guru-guru agama dan guru sains juga dapat dikurangkan selain membawa dimensi baru dalam dunia pendidikan iaitu sains dan agama saling memerlukan antara satu sama lain.

7.0 KESIMPULAN

Kesimpulannya, sains merupakan satu cabang ilmu pengetahuan yang mempunyai kekuatan yang tersendiri dalam membangunkan kesedaran, kefahaman dan keyakinan beragama dalam diri insan. Oleh itu, menurut Nor Hayati (2005), kesepaduan pendidikan sains dengan tauhid dapat menyatukan dua kekuatan dalam mencapai ketaqwaan kepada Allah S.W.T yang menjadi titik tolak pembangunan insan sains muslim seperti yang dihasratkan oleh Falsafah Pendidikan Kebangsaan. Justeru Model Konstruktivis Bersepadu merupakan satu model pendidikan dan pengajaran sains yang bertujuan untuk menyatukan aqidah tauhid dengan sains. Modul pengajaran yang berteraskan Model Konstruktivis Bersepadu dinamakan Modul Konstruktivis Bersepadu diharap dapat menjadi asas rujukan kepada para pendidik sains merangka kaedah pengajaran yang bersepadu di antara ilmu agama (wahyu) dengan

ilmu akal, menjadikan ilmu bersifat menyeluruh sebagai teras dengan menggabungkan penghayatan ilmu, iman, dan amal

RUJUKAN

Al-Quran dan Terjemahannya.

Abu Bakar Haji Kassim (1991). *Tawhid & Science, Essay on The History & Philosophy of Islamic Science*. Kuala Lumpur: Secretariat for Islamic Philosophy & Science.

Alias Azhar.(2010). Faktor Pembangunan dan Kemunduran Pengajian Sains Islam Silam. *Jurnal Hadhari* (3): 43-59.

Bybee, R.W (1997). *Achieving Scientific Literacy: From Purpose to Practices*. Pourtsmouth, NH: Helneman.

Kementerian Pendidikan Malaysia (1993). *Huraian Sukatan Pelajaran Sains Sekolah Rendah*. Kuala Lumpur: Pusat Perkembangan Kurikulum.

Kementerian Pendidikan Malaysia (2012). Laporan Awal-Ringkasan Eksekutif; Pelan Pembangunan Pendidikan Malaysia (2013-2015).

Nars, S.H. (1994). *Islam dan Sains Moden*. Kuala Lumpur: Penerbit Dewan Bahasa dan Pustaka.

Nik Azis, Nik Pa (1996). *Penjelmaan Gagasan Pendidikan Islam Dalam Konteks Malaysia. Kertas Kerja Konvensyen Kebangsaan Pendidikan Moral& Nilai Dalam Pembangunan Manusia*. Bangi . Universiti Kebangsaan Malaysia. 27-29 Ogos.

Norijah Mohamad (1997), *Keberkesanan Pembelajaran Koperatif DanPengajaran Secara Modul Bagi Peningkatan Pencapaian Pelajar Dalam Bahasa Melayu Peringkat Sekolah Menengah*. Tesis sarjana Universiti Putra Malaysia.

Nor Hayati Alwi. (2005). Ke Arah Pembentukan Model Pembangunan Insan Sains Seimbang Dalam Pendidikan Sains. *Jurnal Teknologi*, 42, 77–93.

Rafidatul Suib dan Johari Surif (2011). *Pembinaan Modul Cantuman Bermakna dalam Topik Persamaan Kimia*. Ijazah Sarjana Muda. Universiti Teknologi Malaysia, Skudai.

Shaharom Nordin (1994). *Penghasilan dan Penilaian KeberkesananModul Kendiri Fizik di kalangan Pelajar Yang Berbeza Kebolehan dan Jantina Tingkatan 4*.

Sidek Mohd Noah , Jamaludin Ahmad (2005). *Pembinaan Modul; Bagaimana Membina Modul Latihan dan Modul Akademik*. Bangi. As Syabab Media.

Sulaiman Nordin (1995). *Sains Menurut Perspektif Islam*. Kuala Lumpur: Penerbit Dewan Bahasa dan Pustaka.

Tajul Ariffin Noordin dan Nor'Aini Dan (2002). *Pendidikan dan Pembangunan Manusia: Pendekatan Bersepadu*. Bangi. As Syabab Media.

Tajul Ariffin Noordin, (1988). *Konsep Asas Pendidikan Sepadu*. Nurin Ent. KL.

Yahaya Jusoh dan Azhar Muhammad. 2010. Kesepaduan Falsafah Sains Al-Quran dalam Kurikulum Sekolah Rendah sebagai Asas Pembentukan Masyarakat Hadhari di Malaysia. *Jurnal Hadhari* (3): 23-41.

Zainudin Jaffar (2003). Matlamat Dan Fungsi Penubuhan Institusi Pengajian Islam,

Suzalie Mohamad (pnyt), Dlm. *Memahami Isu-Isu Pendidikan Islam Di Malaysia*. Kuala Lumpur: IKIM.

Zakaria Stapa.(2009). Manusia Pembina Tamadun:Perspektif Pemikiran Islam. *Jurnal Hadhari* (1):31-44.

Zakaria Stapa, Noranizah Yusuf, Abdul Fatah (2012). Pendidikan Menurut Al-Quran dan Sunnah Serta Peranannya Dalam Memperkasakan Tamadun Ummah. *Jurnal Hadhari Special Edition (2012)* 7-22. Universiti Kebangsaan Malaysia.

Zulkepli Mohamad (2010). *Keberkesanan Modul Pengajaran Fizik yang Dibangunkan Mengikut Perspektif Konstruktivisme*. MRSM Kepala Batas.

THE STUDY OF ENGLISH LITERATURE FROM A TAWHIDIC FRAMEWORK

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ABSTRACT

The objective of this paper is to suggest a new framework for the study of English literature that integrates traditional Islamic scientific and humanistic philosophical approaches on the spirit. This framework involves the application of Quranic verses and hadith as well as the Islamic theology and philosophy of several Muslim figures, notably Syed Muhammad Naquib al-Attas and Muhammad Iqbal, on a number of issues, such as intuition, free-will and happiness. These will then be applied to comparative analyses of English and Islamic literature by writers and poets. Other methods used could be the comparative religion framework, particularly for English literary works that deal with Christianity. By locating literature as having an important role in Western-Islamic comparative studies of scientific philosophy and theology, this paper suggests a new education and role for future literary critics as those who would be engaged in literary appreciation while propagating a Tawhidic framework for literary studies.

Keywords: Tawhidic, Science, English Literature

1. INTRODUCTION

The objective of this paper is to suggest a new framework for the study of English literature that integrates traditional Islamic sciences and humanistic philosophical approaches. Significant to this approach are concepts and beliefs surrounding the spirit from both western and Islamic or, more specifically, Tawhidic, perspectives. This framework requires the application of Quranic verses and hadiths, which are reports of the teachings, deeds and sayings of the Prophet Muhammad, as well as the Islamic theological approaches and humanistic philosophies of several Muslim figures, notably Muhammad Naquib al-Attas and Muhammad Iqbal, on a number of issues, such as intuition, free-will and happiness. These would then be compared to corresponding concepts in the philosophies of English writers and literary movements. It would also take the form of a comparative study of religions if the reading materials involved are English literary works that deal with Christian teachings. Literature's role in comparative studies of theological and philosophical discourse on both the Western and Islamic traditions should produce literary critics who are able to use their interpretive skills to study literary works in order to propagate a Tawhidic perspective of life.

2. FROM NORMATIVE MORALITY TO THE SPIRIT AS A FOUNDATION FOR LITERARY CRITICISM

At the end of First World Conference on Muslim Education held in Makkah in 1977, it was obvious that the study of literature was one area that could be seen as significant to the discourse on Islamic education. The organizing secretary of the conference was the late Syed Ali Ashraf (1925-1998) who, until the end of his life, championed the importance of instilling spiritual faith in the Muslim educational system, in general, and in the study of English literature, in particular. He wrote and published many essays and books to support this objective. In his essay "Literary Education and Religious Values" (1994), he defines the role that education, particularly literary studies, plays in fulfilling the Islamic concept of man as vicegerent (*khalifah*) of Allah (s.w.t.). Although, he argues, literary education is an "Acquired Knowledge", it is similar to "Revealed Knowledge" in that it "depends mainly on the intuitive realization of some truths about life which the imagination of the author seizes and turns into a poem or a novel or a drama" (65). This "intuitive realization", he says, comes from an internal source of insight and Syed Ali does not differentiate between Muslim and non-Muslim writers as well as philosophers as those who have had some experiences with this transcendental realization at a deeply personal level. The challenge for literary writers and, correspondingly, critics, he believes, is to find symbols from the external world to represent "the Truth" that he or she has realized. He argues that this task is made difficult because of the emphasis given to modern science. Science, he says, portrays nature as a process that is constantly undergoing changes. To counter this, he provides some teaching strategies to assist both educators and students in the process of finding symbols from the external world to represent this "Truth" and these are namely through the study of symbols and myths in literature in general as well as through a critical appreciation of a fictional writing. These are supposed to create the necessary skills and sentiments to produce an intuitive realization in the minds of both teachers and students. Failure to produce these desired outcomes would mean that the teacher and students must look into other sources that the writers had used. If, however, the resulting message of the texts indirectly contravenes man's moral and spiritual experiences, the teacher should indicate the limitations of the particular works. To achieve this aim, Syed Ali argues, the teacher himself or herself should imbibe an Islamic norm of life. In another work "The Disciplined Muse or the Muse

Licentious” (1979), Syed Ali makes further suggestions on the criteria of a good literature. He opines that it should convey the universalism of values and not the personal philosophical outlook of a singular writer or poet. A writer, according to Syed Ali, should accept “normal natural moral philosophy which is common to all important religions of the world and try to realise human life through this norm” (94).

Muslims, however, should find Syed Ali’s insistence on normative morality and spirituality as both providing a guide for human behavior and a framework for literary criticism problematic. While he performs a commendable task of returning to the religious and moral foundations of literature, which in England, were laid out by men like Adam Smith (1723-1790) and Matthew Arnold (1822-1888), his attention to English literature as exemplifying the highest form of literariness ever known to man as well as his emphasis on a normative construct of morality are troubling. According to him, the “Truth,” as derived merely from intuitive realizations by Muslim and non-Muslim writers, does not seem to depend on *ad-Din*. In addition, symbols that the writers and poets use to allude to “this Truth” could, he said, be found in the external world, and not in the Quran or hadith. That western writers had used the Bible as an important source from which to mine their treasure trove of imageries is a fact that Syed Ali had simply left out of his paper. Furthermore, he was obviously unaware of the incongruities between the multiculturalist idea of normative morality and an Islamic norm of life which relies on a Tawhidic framework. The American literary critic Ihab Hassan, however, was right when he points out that the multiculturalist approach to the study of literature is not only unrealistic, it is also devoid of any representational power or political agency since it is not linked to a certain culture or system of belief. As he says,

Or is it sufficient to adopt Edward Said’s dictum, that the role of the intellectual is “to speak the truth to power”? Whose truth would that be, and whose morality, and who might enforce it? Hindu, Judaic, Buddhist, Shinto, Confucian, Christian or Islamic morality? (332)

What Ihab Hassan points out is that values are cultural-bound and, more importantly, for Muslims who study English literature, that the emphasis on values in this literature has had its origins in the western rejection of religion.

What was strikingly clear in the nineteenth century, the period associated most with the affordability and popularity of literary works amongst the masses in England, the number of people who believed in Christianity was declining rapidly as it was “no longer winning the heart of the masses” (Eagleton 20). Literature was seen as replacement for religion as it was thought to contain moral messages and lessons as well as possessing the capacity to develop empathy amongst its readers as they read into the fictional characters’ minds and thoughts. This was what Adam Smith, the moral philosopher and political economist, had in mind when he introduced the study of English literature in his course on rhetoric and *belles lettres* at Edinburgh University in the eighteenth century. It was supposed to assist the creation of an uncorrupted and civilized society by cajoling people to “read” into the lives of others and as a result would become less self-centered (Smith 9).

Today many academicians in departments of English in Muslim countries, including Malaysia, Pakistan, Bangladesh, and many others, have chosen to ignore the religious vacuum that had given rise to these secular lessons and values in English literature.

These imply their failure in a number of things: failure to consider Muslim *ummah’s* steadfastness to religion, obliviousness to Islam’s own unique values, and inability to

abandon the mistaken assumption that values are naturally normative. Addressing this issue, an early critic of Islamic literature in Malaysia Muhammad Kamal Hassan makes an important suggestion that Muslims should never view and interpret literatures written by non-Muslims, no matter how they appear to subscribe to a normative morality, from a liberal humanistic viewpoint (1982 23-4). That Islam's value system is composed of Muslims' divinely-ordained responsibilities as servants of Allah (s.w.t.) should be made clear to any students of English literature. This situation is in a direct contrast to the West with its recognition that values, in a secular and often God-less world, are uncertain and unclear.

The moral-based approach that Syed Ali had taken in the 1970s in his study of English literature, however, was fast losing its footing in the study of English Literature in the West. A decade before, the most influential critic who had stressed on this moral approach was F.R. Leavis (1895-1978), a major figure in the New Criticism movement. Not only did he emphasize that values are present in a formal study of English literature but that they also must be viewed as independent from religious and cultural contexts. More importantly, he enshrines them as representing "the Truth." Nonetheless, he argues, the nature of "this Truth" cannot be elucidated clearly or be seen as dependent on philosophy. In his essay "Literary Criticism and Philosophy" (1966), he writes that they critic must be able to view values in a literary work without relying on theories or philosophy because "a certain valuing is implicit in the realizing" (Leavis 213). Although Leavis was successful in advocating his way of studying literature, the morally ambiguous nature of his instructions created a need in later decades to turn the nature of this field of enquiry into a more scientific one by introducing a range of theories based on the cultural theories that had gained prominence from the 1950s onwards. By the 1970s, the study of literature in the West had gradually left the realm of moral concerns and entered into the field of European philosophy, of which results in literary theories. Today, these theories are applied by those who criticize or analyze works in English literature.

Yet the emphasis on theories, Muhammad Kamal Hassan argues, has resulted in the spiritual crisis currently experienced in the West. As he continues, "While it provides us with ways to analyze external objects, it has failed to provide us with a technique to integrate the spirit with the body; the absolute with the transient; ... Islam with the World" (1985 15). A literary theory for Muslims, according to Muhammad Kamal, must be one that manages to provide a balance between Islamic spiritual and materialistic concerns by integrating them in a harmonious way so that it has both social and political roles to play in man's overall development.

In the last fifteenth years or so, recent inroads into Western literary criticism also show an increasing fascination with morality and spirituality and their connections to the material and the role that these could play in generating creativity in the sciences as well as in the liberal arts. While many critics in the last few decades have written about the return to ethics as a foundation literary criticism, others like Ihab Hassan speaks of spirituality in relation to literature, specifically postcolonial literature,

Spirit does not exhaust itself in theological doctrines and religious orthodoxies. It reveals itself in a vast range of immaterial facts: in common intuitions and quotidian beliefs; in sentiments like love, values, like loyalty; in the sense of beauty, awe, ecstasy, the sublime; in the enigmas of the creative process in science and art; in visionary and mystical experiences — above all, perhaps, in intimations, if not of immortality, of a larger reality of the cosmos,

beyond our grasp. All these “immaterial facts” ... constitute the radical impulse both to realize and to transcend one’s humanity. (340-1)

Unlike moral codes, which have been shown to be culture-bound, the spirit, Ihab Hassan argues, is a human attribute which transcends all boundaries, including those of cultures and religions. Surely, it would seem that humane attributes and concepts, like love, imagination, intuition and etc., exist in any human society and as such could be converging points for the study of their manifestations in different cultures, particularly western and Muslim cultures. What Ihab has overlooked, however, is that in their discursive acts of explaining these concepts to their audiences, philosophers throughout the ages have rightly viewed them as inseparable from cultural theories and ideologies, including those of the organized religions. Indeed, seen in light of a discursive framework of human endeavour to understand the metaphysics of the concepts, discussions on the spirit could never be divorced from the larger frameworks of worldviews that exist in this world today. Hence, a discourse on the spirit could never be, for example, for the westerner devoid of cultural antecedents such as Christianity or the various-isms that had been popular in the West. Likewise, a discourse on the spirit for Muslims writers and poets should be one that derives from a *Tawhidic* framework and worldview or *tassawur*.

An emphasis on reading literature by focussing on the spirit is one that has not been fully explored by Muslim critics. Early studies in conceptualizing the nature of Islamic literature, for example, focus on judging and interpreting a literary work based on obscure concepts that are aligned cursorily to Islamic teachings. Yet it must be acknowledged that if a work of Islamic literature were to be analysed satisfactorily and acquire the agency to promote Islam, concepts must have strong spiritual dimensions and these need to be explored scientifically. The works of Muslim philosophers who have couched their concepts on the spirit in scientific terms, such as Naquib al-Attas and Muhammad Iqbal, could be the foundation of a western-Islamic comparative paradigm for the study of English literature.

The most noticeable emphasis in introductory books and discourse on Islamic literature is on subduing the interpretation or meaning of a certain literary work to Islamic teachings. To the World Organization of Islamic literature, the objective of artistic expressions about life and the universe must be in accordance with Islamic aspirations. For the Muslim thinker Muhammad Qutb, Islamic literature should be regarded as beautiful expressions of the universe, life and man that correspond to an Islamic *tassawur* (Qutb 6). While this establishes the importance of Islamic *tassawur* to the appreciation of a literary work, there is an overriding emphasis on aestheticism as the critics align beautiful literary expressions with Islamic teachings, aspirations and values.

The situation above is reflective of the limitations that the word “*adabiyyat*” or literature in Arabic have endured. An extension of the word *adab*, it has undergone much of a contextual restriction that limits it to the concept of cultural refinement in relation to creative writings, *belle letters* and social etiquette. Naquib al-Attas in his book, *The Concept of Education in Islam* (1999), however, elucidates the proper context and understanding of literature by going back to the original meaning of *adab*. He writes,

In the original sense a basic *adab* is *the inviting to a banquet*. The idea of a banquet implies that the host is a man of honor and prestige, and that many people are present; that the people who are present are those who, in the host’s estimation are

deserving of the honor of invitation, and that therefore people of refined qualities and upbringing who are expected to behave as befits their station in speech, conduct and etiquette.... The islamization of this basic concept of *adab* as an invitation to a banquet, together with a conceptual implication inherent in it, is profoundly expressed in a hadith narrated by Ibn Mas‘ūd, where the Holy Quran is itself is described as God’s invitation to a banquet on earth, in which we are exhorted to partake of it by means of acquiring real knowledge of it.... The Holy Quran is God’s invitation to a spiritual banquet, and the acquiring of knowledge of it is partaking of the fine food in it. (24)

The acquisition of knowledge that Allah (s.w.t.) is offering, however, must be conducted with proper behaviour and etiquette in order to fully derive the benefits of this knowledge. As al-Attas mentions,

adab involves action to *discipline the mind and soul*; it is acquisition of the *good qualities and attributes* of mind and soul; it is to *perform the correct* as against the erroneous *action*, of *right or proper* against the wrong; it is *preserving from disgrace*. Thus *adab* as the disciplinary action, the selective acquisition, the correct performance and the qualitative preservation, together with the knowledge that they involve, constitutes the actualization of knowledge. (al-Attas *The Concept* 25)

Likewise, al-Attas merges the concept of *adab* as the most comprehensive concept for knowledge, which is disseminated and instilled in the student’s self, with the term “*ta’adib*” or education, “Thus, we defined education, including the educational process as the recognition and acknowledgement, progressively instilled in man, the proper places of things in the order of creation, such as that it leads to the acknowledgement of the proper place of God in the order of being and existence” (al-Attas *The Concept* 26).

The connection between knowledge or *adab* and literature or *adabiyat*, as both constitute *ta’dib*, should situate the latter as having a significant role in the propagation of a religious belief. Going back to the history of literature, and, more specifically, poetry, this has mainly been the justification used by many poets to earn societal respect and honour for their art. Syed Naquib al-Attas, in his *Risalah untuk Muslimin* [A Treatise for Muslims] (2001), observes that poets living before the advent of philosophy, in both pre-Islamic and Western tradition, elevated the nature and function of their poetry by claiming the Divine as the source of their poetical inspiration. In the West, the Greek philosophers, the most famous being Plato, unseated them by arguing that literature must convey the importance of virtue, truth and observe generic requirements (al-Attas *Risalah* 112-3). The poets’ failure to follow these rules brought their demise.

The Islamic understanding of literature and philosophy should not be viewed as being susceptible to the same problems. As al-Attas argues, both should rightly be faithful interpretations of the verses inside the *Tanzil*, or the Quran, through proper and beautiful use of language that introduces as well as affirms the Muslim identity of the literary writer or poet (al-Attas *Risalah* 117). The appreciation for literature, hence, should not stem from its aesthetic merits only but more importantly the degree of its faithfulness and creative

affirmation of the teachings that are embedded in the *Tanzil*. Literature, from al-Attas's concept of education, should not be divorced from its role in instilling and cultivating virtues. As al-Attas maintains, "If Islamic literature is termed *adabiyat*, this means that its role is to convey culture and etiquette, supplying teachings as well as statements that will educate the self and society in order to inculcate these, until they elevate humankind from its lowly status to ever-lastingly perfect condition" (al-Attas *Risalah* 121). To merge this definition with the term *adab*, which al-Attas had stated as the actualization of knowledge in the Tawhidic sense, is to argue that literature's role is more than to safeguard the proper and progressive acquisition of knowledge but also to ensure that this knowledge "properly places things in order of creation" and more importantly "the proper place of God in the order of being and existence" (al-Attas *The Concept* 26).

In the Muslim world, it is commonly accepted that the *ulama* would shoulder this role of the carriers and teachers of *adab*. Yet, as al-Attas argues, it would only be possible for the poet or literary figure to assume a similar role if he or she were able to inculcate in his or her writings an Islamic personality and, hence, propagate real knowledge because the source of his or her inspiration is also from religion, not from philosophy or aestheticism (al-Attas *Concept* 125).

Because of this, the most commendable poetry or any form of creative writing would naturally come from a poet or a literary figure who is well-regarded for steadfastness to his or her religious beliefs or *iman*, not merely to a certain philosophy or aesthetic sense.

A study on literature in general should then rightly begin with clarifying these religious beliefs according to the main sources of Islam, the Quran and hadiths, and also the understanding that philosophers have regarding these beliefs. The focus of an education on literature in Islam, hence, should move away from the current attention to aesthetic qualities and forms to an emphasis on religious concepts and beliefs as well as ways to transform these into Islamic behaviour and attributes, with a view to inculcate them in the minds of readers.

Because the study of literature requires critiquing literary works, it is like other humanistic fields, a discursive practice. Yet its discourse must be clear and precise and this requires the scientification of terminologies for concepts that can be applied in an Islamic reading a work of literature. While the Quran and *hadith* remain fundamental sources, the use of Islamic theology and philosophy in analyzing and critiquing a work of literature enables a Islamic literary discourse to emerge as it is structured around Islamic traditional sciences as well as humanistic enquiries into the nature of the spirit. The writings that Muslim philosophers, such as Naquib al-Attas and Muhammad Iqbal, become significant to this framework because they elucidate a number of important metaphysical concepts from an Islamic worldview. Their contributions will enable critics to construct discourses on concepts that were previously indescribable either because they were thought to be too abstract to be defined or to selective to be experienced.

al-Attas' scientific philosophy, for example, provides in-depth and discursive exploration into concepts such as intuition, human psychology and to metaphysical concerns like the nature of essence. In his book, *The Concept of Islamic Education*, al-Attas himself had stated that the process of Islamicising education requires the scientification of Islamic beliefs and terms by relying on the Quran as the fundamental source. While he regards the arts or creative practices as unimportant to his educational paradigm, he explains that his primary contention against the arts was that these had taken the place of Islamic scientific enquiries and practices. As he says, "*Dhirk* and *tadkhir*, which meant invocation and admonition respectively, were then changed to story-telling, the reciting of poems, escatic utterances [*shathīyyāt*] and heresies.

Hikmah and *hakīm* which referred to wisdom and the wise, were then changed and restricted to refer to physician, poets and astrologers” (al-Attas *The Concept* 36).

While I find story-telling and reciting poems to be possible forms of man’s expression of his submission to Allah (s.w.t.), al-Attas rightly points out that contributions from Islamic literature to Islamic theology and philosophy are often confined to mystical dimensions. To counteract such tendencies to obscure and mystify concepts amongst Muslims, which are by nature complex and abstruse, al-Attas argues, Muslims philosophers should first return to the teachings of the Quran and *hadith* and then resort to scientific discourse in order to explain Islamic concepts in its own epistemology or *tassawur*. The resulting findings should then benefit the study and writing of literary pieces as writers and poets are shown to express them in literary works. A comparative study of western-Islamic understandings of similar spiritual concepts could then facilitate an Islamic study of English literature by privileging the wealth of knowledge or *adab* as an Islamic inheritance, which is devoid of the shortcomings inherent in western philosophy.

While interest in philosophy and its relation to literature in the West in recent times has somewhat waned, fundamental philosophical questions regarding morality and science continue to be debated. Furthermore, many important and canonical literary in English literature are by English writers who have longed been regarded as philosophers in their own right. Beginning with the nineteenth century, however, accusations over being overly-emotional and melodramatic had caused these writers to distance themselves from their works. After the Second World War there was also an increasing disillusionment with overarching concepts and worldviews. The advent of postmodernism and its notion that all types of knowledge and discourse are subjective and culturally-constructed instilled the idea that a writer could never be expected to disseminate ideas that is true to other people’s lives and experiences. To return to a discussion on English writers and their philosophies, in this sense, is to return to a time when a writer’s works were not only motivated by but also disseminated his or her philosophy.

Proposed English education materials for Muslim literary critics and writers, hence, would make use of materials in Islamic scientific tradition and English humanistic philosophies and that could be compared and contrasted within the contexts of their treatment in Islamic and English literatures. For this purpose, it would be useful to conduct comparative studies between writers and poets who are also philosophers in their own right. This approach would allow for various opinions by western and Muslim poet-thinkers to be assessed together within whatever knowledge on the spirit and society that is known, afforded and debated in a scientific and humanistic terms.

A comparative study of Romanticism and Islam, for example, could focus around the issue of poetic inspiration. I am, for example, currently comparing between imagination as a source of poetic inspiration to the English Romantics and intuition as another source to the Islamic poet Muhammad Iqbal. Poetic inspiration used to be an important topic in literary history because it used to show the connection that the Divine has in the creation of a poem but also the high esteem that past societies, particularly the Greeks, had for poets. Differences, however, must be clearly established between the Romantics’ deification of an obscure force that they perceived as a source of their imagination and the Islamic understanding of Allah (s.w.t.) and intuition as providing an indefatigable supply of their poetic inspiration. In poems by Samuel Taylor Coleridge, the Romantic understanding of imagination as one that was based on a Neoplatonic notion of this world as an imitation of a real world is turned into a recounting of

the poet's theophanic visions in which the essence of Christian god is obscurely reflected in his creations. Nonetheless, the difficulty in differentiating this form of imagination from the poet's personal fancies is a major shortcoming of Coleridge's philosophy. Muslims, however, believe God to be a separate entity than His creations and this idea places intuition as the foremost source of poetic inspiration for Iqbal. In my essay, I refer to al-Attas's concept of Intuition of Existence, as when God is said to reveal an aspect of Himself (*tajalli*) through one of His Names (*asmā*) or Attributes (*sifāt*) to the Muslim who has experienced this type of intuition. Many of Iqbal's poems suggest that this was the version of intuition which he had in mind as he wrote them. The pervading theme of his poems seems to be his unending quest to gain knowledge and closeness to Allah (s.w.t.). Hence, the highest form of poetic inspiration for a Muslim, as Iqbal has shown, is not imagination as manifestation of God's eminence in this world but as unshakable knowledge of Allah's existence and an expression of a desire to meet and catch glimpses of Allah (s.w.t.).

Other aspects that could be compared are concepts associated with morality. This, I have written in another paper, could be based on a discussion on free-will. In *Reconstructions of Religious Thought in Islam* (1930), Iqbal had singled out Browning as the poet who would present the standards for morality as subjected to free-will of man, as opposed to the Western reliance on "determinism." Stark contrasts exist between the two men's conception of "human choice" or free-will. This is partly because the attention to man's struggles with his own self in order to know the world and his active reaction to it in Browning's poem is often bereft of any guiding principle, leading his protagonists sometimes to experience moral depravity and, at other times, disillusionment. Iqbal's concept of free-will, however, sees it as a divine gift that is to be used with balance, amongst other things, in order to serve Allah (s.w.t.). The differences between these different ways of viewing free-will could be illustrated by comparing poems by the two poets.

Leaving the poetic genre behind, lecturers could also discuss the shortcomings inherent in the western concept of tragedy, as depicted in many plays, by analysing al-Attas's views on this matter. His works such as *Ma'na Kebahagiaan* [The Meaning of Happiness] (2002) and *Risalah untuk Kaum Muslim* explain the western concept of a "tragic" hero as one that originates from the classical Greek period in which the hero, when facing insurmountable odds that are thrown at them by external forces, obstinately holds on to the force of his or her own personality. Up to the end of his or her life, the character, however, continues to pursue happiness by hoping for a miracle to happen. al-Attas, however, views happiness as an emotion that could only be experienced if a Muslim were to subject himself or herself completely to Allah (s.w.t.).

A proposed Islamic study of English literature would also have to include a response to literary pieces that are embedded with Christian teachings, such as Edmund Spenser's *Faerie Queene* and John Bunyan's *Pilgrim's Progress*. Here, lecturers could use a comparative religion framework, which has been developed amongst others by Ismail Raji al-Faruqi in works such as *Islam and Other Faiths* (1998), to highlight differences between Islam and Christianity in matters dealing with the soul and society. It could show that, for the most part, Christianity emphasizes good deeds as a guarantee for salvation without any reference to God as the ultimate source to which the objectives of these deeds are directed. Islam, however, views the gaining of Allah's (s.w.t.) *redha* or satisfactory acceptance as the objectives of all virtuous acts and that the road to salvation must not only be filled with good deeds but also the perfection of man's *iman* or belief as well as manifestations of these in his formal acts of worship toward Allah (s.w.t.). If a work like John Milton's *Paradise Lost*, describes in detail

Christian views on man's creation and so forth, the many interpretations by Muslims to *Paradise Lost* which sees it as glorifying Satan could be discussed in class. Milton's work could also be compared with the Quran's own rendition of the Prophet Adam's (a.s.) fall from Heaven.

There are also English literary writings that are social commentaries regarding the time periods in which they were written. Hence, these do not address and are not concerned with the spiritual development of their readers. Nonetheless, they can be shown to be impacted by literary works and cultures of the Muslim people. Works like Geoffrey Chaucer's *The Canterbury Tales* and Thomas Mallory's *Morte de'Arthur* have long been regarded as important masterpieces in English literature because they purportedly represent the beginnings of the illustrious literary heritage of the English people. It is the job of the Muslim lecturer to challenge this assumption by demonstrating in class that these works contain adaptations or borrowings from the literatures and cultures of the Muslim people. The pilgrim motif in *The Canterbury Tales*, for instance, is derived from *Disciplina Clericallis* by Pierre Alfonsus, who lived during the era of Muslim's colonization of Spain. He, in turn, relied on Islamic sources for his work, including story no. 18 of the *Disciplina* that contains the tale of a townsman and a countryman bound on a pilgrimage to Makkah and how they decided to hold a storytelling competition along the way, rewarding the winner with a piece of bread. This, as is well-known, is very similar to story of the pilgrims in Chaucer's work. Another important source for English literature written in the medieval period is *One Thousand and One Arabian Nights*, a set of tales that has continued to assert their influence long into the 21st century. However, it must be acknowledged that the nature of some of these tales is not explicitly Islamic, much less *Tawhidic*. Hence, the lecturer must use his or her discretion in highlighting the contents of *the Nights* or any other influential literary pieces written by Muslims that appear in many works of English literature. It should be stressed here that because the focuses of these studies are not *Tawhidic* in nature, but more on the literary history of encounters between Muslims and Westerners, they should not constitute the bulk of effort on proposed materials in Islamicising the study of English literature. Nonetheless, those seeking to include these analyses into the attendant course reading materials could refer to a number of publications from academicians which seek to highlight the influence that Muslims have had on English literature. Works like *Spain to England: A Comparative Study of Arabic, European, and English Literature of the Middle Ages* (1974) by Alice E. Laster, Abdul Wahid Lu'lu'a's *The Contributions of the Spanish Muslims to the European Poetry* (2001) and Masooudul Hassan's *Sufism and English Literature* (2007) show the influence that Islam and literary works written by Muslims have had on European literature including English literature.

Even though the suggestions offered above should be useful in offering an alternative way for the Muslim academician to teach English literature to students, the continuation and growth of a body of works in comparative studies on Islamic and English literatures still depend largely on new discourses on the spirit that the social sciences need to develop. Fields, like psychology and sociology, must be able to explore and offer new philosophic conceptions of the spirit, which could then be related to society, and, consequently be applied to comparative studies of western and Islamic literature. Possible topics of interest could be on the nature of loyalty, peace, courage and so forth. The ways these are conceptualized in Islamic terms could result from joint studies conducted by the Department of Usul-ul-Din and the social sciences departments as mentioned above. The Department of Arabic Language could also make an immense contribution to the Islamization project because the Arabic language from the linguistic point-of view, as al-Attas has shown through his works, could generate whole

new discourses. The basic point here is that academicians need to be less concerned with their own specific field of inquiry and work together to formulate and produce comprehensive and multidisciplinary discourses on a range of issues that cover the spirit and its relation to society.

3. CONCLUSION

A proposed study of English literature from an Islamic perspective calls for a re-evaluation of the concept of literature itself. Works in English literature cannot be taken as depicting the same level of inquiry into the concept of morality or spirituality as those that originate from an Islamic perspective. The idea that the former has a normative dimension has to be replaced with an acknowledgement that there exist significant differences between how Islam and the West view them. Yet issues in morality and, most significantly, the spirit, can provide solid foundations for a comparative analysis of Islam and English literature. In fact, the focus of the way literature is conceived as “adabiyat” should be extended to include science-based philosophic enquiries into the nature of the spirit so as to place it in proper relations to Allah (s.w.t.) and education in general. A study of English literature can then be achieved by comparing between the different ways the enquiries into the spirit that had been conceived by both traditions, particularly in the scientific philosophies of western and traditional sciences of Muslim philosophers and theologians. A comparative religion framework could also be employed to study works in English literature that tend to focus on theological issues. Some writings in English literature, however, do not deal with philosophy or theology. In this context, the degree of influence that Islam and Muslim peoples have had on English literature can be highlighted. In any case, the study of English literature is important because by following the aforementioned recommendations, at least two types of knowledge that al-Attas has listed as important to his concept of Islamic education would be added: firstly, comparative religion from an Islamic point of view, and, secondly, western culture and civilization. The last, however, should not, as we have shown, be studied for its sake but, as al-Attas has clearly mentioned, “These must be designed as a means for Muslims to understand Islam in relation to other religions, cultures and civilizations —particularly that culture and civilization that has been, is, and will continue to be confronting Islam (al-Attas, *The Concept*, 42).

REFERENCES

- Aimillia Mohd Ramli. “Decolonizing the Study of English Literature in a Muslim–Malaysian Context: An Argument for a Spiritual-based Comparative Paradigm.” *Cultura: Journal of Philosophy of Culture and Axiology* X.1 (2013): 99-118. Print.
- al-Attas, Syed Muhammad Naquib. *Ma’na Kebahagiaan dan Pengalamanya Dalam Islam* (The Meaning of Happiness and Experiencing it in Islam). Kuala Lumpur: International Institute of Islamic Thought and Civilization (ISTAC), 2002. Print.
- _____. *The Concept of Education In Islam: A Framework for an Islamic Philosophy of Education*. Kuala Lumpur: International Institute of Islamic Thought and Civilization (ISTAC), 1999. Print.
- _____. *The Intuition of Existence*. Kuala Lumpur: International Institute of Islamic Thought and Civilization (ISTAC), 1990. Print.
- _____. *Risalah untuk Kaum Muslimin* [A Treatise for Muslims]. Kuala Lumpur: International Institute of Islamic Thought and Civilization (ISTAC), 2001. Print.

- Coleridge, Samuel Taylor. *Biographia Literaria*. 2 vols. Ed. J. Shawcross. London: Oxford University Press, 1907. Print.
- Eagleton, Terry. "The Rise of English." *Literary Theory: An Introduction*. 1983. U of Minnesota P, 1996: 15-46. Print.
- al-Faruqi, Ismail Raji. *Islam and Other Faiths*. Ed. Ataulloh Siddiqui. Markfield, Leicester: The Islamic Foundation and The International Institute of Islamic Thought, 1998. Print.
- Hassan, Ihab. "Queries for Postcolonial Studies." *Philosophy and Literature* Vol. 22: 2 (Oct. 1998): 328-342. Print.
- Iqbal, Muhammad. *Reconstructions of Religious Thought in Islam*. Kitab Bhavan, 2000. Print.
- Laster, Alice E. *Spain to England: A Comparative Study of Arabic, European, and English Literature of the Middle Ages*. UP of Mississippi: Jackson, MS. 1974. Print.
- Leavis, F.R. "Literary Criticism and Philosophy". *The Common Pursuit*. London: Peregrine Books. 1966. Print.
- Lu'lu'a, Abdul Wahid. *The Contributions of Spanish Muslims to the European Poetry*. International Islamic University Malaysia: Kuala Lumpur, 2001. Print.
- Hasan, Masoodul. *Sufism and English Literature: Chaucer to the Present Age*. New Delhi: Adam Press, 2007. Print.
- Hassan, Muhammad Kamal. *Beberapa Catatan Mengenai Kriteria Estetika Dalam Seni dan Sastra* [Notes on Aesthetical Criteria in Fine Arts and Literature]. *Dewan Sastra* 12:2 (1982): 19-24. Print.
- _____. *Menghayati Islam Dalam Mempelajari dan Mengembangkan Ilmu* [Appreciation for Islam's Role in the Acquisition and Dissemination of Knowledge"]. *Jurnal Pendidikan Islam* 3 (1985): 12-39. Print.
- Qutb, Muhammad. *Manhaj al-Fan al-Islami* [The Method of Islamic Art]. Beirut: Dar al-Shuruq, 1983. Print.
- Smith, Adam. *The Theory of Moral Sentiments*. 1759. Ed. D.D. Raphael & A.L. Macfie. Oxford: Oxford UP. 1976. Print.
- Syed Ali Ashraf. "The Disciplined Muse or the Muse Licentious." Eds. Syed Sajjad Hussain & Syed Ali Ashraf. *Crisis in Muslim Education*. Jeddah: Hooder and Stoughton. 1979. Print.
- _____. "Literary Education and Religious Values." Ed. Syed Ali Ashraf and Paul H. Hirst *Religion and Education: Islamic and Christian Approaches*. Cambridge, U.K.: The Islamic Academy. 1994. Print.

ISLAMIC STUDIES FOR DISABLED: TEACHING SALAT FOR AUTISM USING APPS

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ABSTRAK

Teknologi mudah alih telah berkembang dengan pesat dalam pelbagai bidang, termasuk pendidikan. Kebanyakan tumpuan penyelidikan yang telah ada tertumpu kepada subjek yang global seperti matematik dan bahasa Inggeris. Tetapi, fokus kajian ini tertumpu kepada pendidikan solat untuk kanak-kanak Islam yang mengalami autistik. Daripada analisis awal, kanak-kanak autistik mempunyai kesukaran untuk mengingat langkah-langkah dalam solat dan masalah dalam menghafal bacaan Surah. Kajian ini menawarkan pedagogi atau lebih spesifiknya Rangka Kerja teori Salat untuk Kanak-kanak autistik (STFAC); untuk menggambarkan sistem pengajaran solat untuk autisme dalam aplikasi mudah alih. Model yang berdaya cipta, STFAC; adalah berdasarkan kepada pendekatan TEACCH itu (Treatment and Education of Autistic and related Communication handicapped Children). TEACCH dibina berdasarkan pemahaman ciri-ciri pembelajaran individu autism. Model STFAC yang telah dibangunkan akan digunakan sebagai garis panduan dalam reka bentuk dan pembangunan aplikasi.

ABSTRACT

Mobile technology has grown rapidly in many fields, including education. Most of the research focus on global subjects such as mathematics and English language. But, the focus of this research is further narrowed down to salat education to Muslim children with autism. From the preliminary analysis, autistic children have difficulties in memorizing steps in salat and problems in memorizing the recital of Surah. This paper offers a pedagogy or specifically the Salat Theoretical Framework for Autistic Children (STFAC); to describe the organization of teaching salat for autism on mobile apps. This inventive model, STFAC; is based on the TEACCH (Treatment and Education of Autistic and related Communication handicapped Children) approach. TEACCH is constructed based on an understanding of the learning characteristics of individuals with autism. The STFAC will be used as a guideline in the design and development of the apps.

Keywords: mobile applications (apps), Salat, autism spectrum disorders (ASD)

1. INTRODUCTION

Allah created man with the capabilities for acquiring knowledge, and provides man with hearing, sight and wisdom as mentioned in the Quran: “And Allah has brought you out from the wombs of your mothers while you know nothing. And He gave you hearing, sight, and hearts that you might give thanks (to Allah)” (Quran, An-Nahl, 16:78). The Prophet Muhammad SAW made seeking knowledge an obligation upon every Muslim which includes those with impaired capabilities, and he explained that the superiority of the one who has knowledge over the one who merely worships: “The superiority of a learned man over a worshipper is like my superiority over the ordinary men from among my companions” (Hadith At-Tirmidhi). Furthermore, the Prophet Muhammad SAW said that seeking knowledge is a way leading to Paradise: “Whoever follows a path in the pursuit of knowledge, Allah will make a path to Paradise easy for him.” (Hadith Al-Bukhari).

Islamic studies include knowledge about Tawhid, Seerah (history), moral, Fiqh (jurisprudence) and practices and rituals of Islam. Seeking knowledge is compulsory for all men and women, especially those which are considered as fardhu ‘Ain (revealed knowledge), without this knowledge, we will not be able to perform in accordance to the syariah. Among the main practices and rituals of Islam are prayers or salat, fasting, pilgrimage and purification (like ablution or wudhu). Our religion had taught us that everyone is equal in the sight of Allah SWT, with the most pious are the best people. Everyone, including those disabled have the rights to be loved, cared and respected and must be given the access to education, jobs and any life activities. The society must be responsible to provide the needs of others and Allah will bestow mercy and blessings on us as mentioned in the following hadith, “God the Merciful shows mercy to merciful people. Show mercy to those on earth, so that God shows mercy on you” (Hadith Abu Dawud). The history had shown that there were few handicapped individuals whom had contributed to the society during the Prophet Muhammad SAW era like Abdullah Ibn umm Maktum. Although Abdullah Ibn umm Maktum was blind, he was among the first to accept Islam and extremely eager to memorize the Qur’an. Abdullah was appointed by the Prophet Muhammad SAW to be one of the muezzins when he arrived Madinah. It is important to ensure those handicapped people to be educated so that they can live like others and consequently improve their life. Thus we should create the suitable and necessary aids or tools to make those disabled to be educated. Among the issues in teaching-learning those handicapped children are insufficient trained teachers to deliver the knowledge and also in availability suitable tools for learning.

This paper presents an approach in teaching salat for autism. Salat is a compulsory ritual activity that a Muslim individual must perform five times a day that requires practice since early age in order to yield a quality and meaningful life in the world and hereafter. The objectives of the research are to i. To increase learning, motivation with apps among autistic students; II. To enable the autistic students to learn at their pace with the app's functionality; III. To increase teaching, motivation among teachers; and iv. To enable teachers to reduce both time and location constraints in order to learn in ubiquitous environments. What can apps offers to help them to achieve the above objectives? Therefore, this paper presents the Salat Theoretical Framework for Autistic Children (STFAC), specifically tailored to autistic children's requirements that aims to reduce their difficulties in performing salat.

2. AUTISM SPECTRUM DISORDER (ASD) AND APPS

Autism is one of the fastest growing disabilities, with about 1 in 68 children has been detected with an Autism Spectrum Disorder (ASD) (ASD; Center for Disease Control,

2012). Three areas affect the ASD children are in social communication, interaction, flexibility/imagination [1], language development and behavioral repertoire or stereotypic behavior [2]. This resulted in fears and frustration [3]. About 29% –55 % of children with ASD also have problem in anxiety disorder [4]. Anxiety occurs when they are not able to communicate and cooperate, especially with medical procedures [5]. Moreover, the exact causes of ASD are still generally unidentified and multi-faceted [6].

One of the approaches in helping these children is with computer assisted learning (CAL) [7]. They prefer electronic media [8] and spend a lot of time using computers [9]. A recent studies found that CAL can be effective in teaching a variety of [10] including social skills [11]. Mobile Applications (Apps) are one of the CAL that can be applied in ASD teaching and learning process. Apps is a software application developed to run on mobile devices such as smartphones and tablets. The advancement in technology has provided wide opportunities in optimizing the ICT tools for enhancing the teaching and learning process with appropriate pedagogy. Among the benefits of adopting ICT in teaching and learning are a more personalized learning that would cater for diverse needs and learning styles, capabilities of individuals, accelerate and promote learning [13-15].

3. PEDAGOGY APPROACH FOR APPS DEVELOPMENT IN TEACHING SALAT

For a successful teaching and learning process, the learning ecosystem should consider the learner styles, learner needs and learner capable of receiving information [12]. Also, the learning ecosystem should adopt the ICT tools and devices in transferring knowledge to the learner with the appropriate pedagogy. Figure 1 shows a simplified learning ecosystem that involves the technology (ICT devices and software), content (knowledge) and pedagogy (how the knowledge is transferred to the learner). These three elements are important to ensure the learning is personalized to the student. An ecological perspective focuses on the relationships and dynamics between these elements in the learning environment is shown in Figure 1.

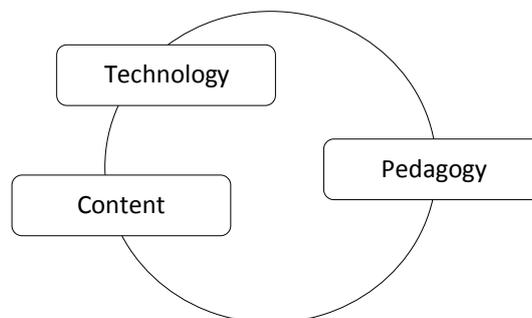


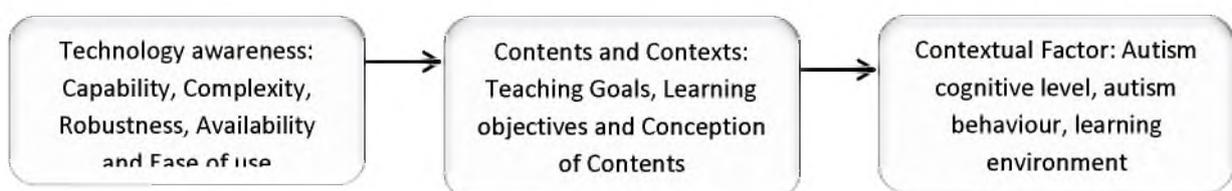
Figure 1 Learning ecosystem: technology (ICT devices and software), content (knowledge) and pedagogy (how the knowledge is transferred to the learner)

Pedagogy is the approach of teaching and learning that must suit to the learners, and what more to those learning disabled children. Autism limitations in learning such as repetition of events can be advantageous and employed as a method of pedagogy in app development for teaching salat. Salat can be categorized by two distinct parts, i.e. the practice and theory. The practical part of the salat is where a child learns the movement, body positions and the sequence. Figure 2 illustrates the components of Salat Dzuhur (the movement) and the sequence of those components in one unit of salat. The theory part is the memorization of prayers. Repetitions of movement together with the recitation of prayers, precise body position and constant focus (khusyu') are very much observed in salat.

<u>Raka'at 1</u>	<u>Raka'at 2</u>	<u>Raka'at 3</u>	<u>Raka'at 4</u>
Takbiratul Ithram			
Standing up	Standing up	Standing up	Standing up
Rukuk	Rukuk	Rukuk	Rukuk
I'tidal	I'tidal	I'tidal	I'tidal
First prostration	First prostration	First prostration	First prostration
Sitting on the ground in a special position	Sitting on the ground in a special position	Sitting on the ground in a special position	Sitting on the ground in a special position
Second prostration	Second prostration	Second prostration	Second prostration
	First Tah'yaat		Second Tah'yaat
			Conclude the prayer

Figure 2 Salat movement components

A salat pedagogical framework for app development encompassing the critical mindset in which teachers of the “Pendidikan Islam” can begin to conceive their own "best practices" of teaching salat with technology. This framework is based on the preliminary analysis study, which includes goals, autism student behavior and cognitive level; and the learning environment. The first step of developing a salat pedagogical framework is to recognize the capability and complexity of technology in terms of portability, robustness, availability and ease of use. The second step is to create the contents and contexts for effective technology by developing a pedagogical framework, learning objectives, learning strategies and teaching guidelines. The third step is about the knowledge of the user, in this study is autism; in terms of cognitive level, behavior and other persona design and also their current learning environment. He forth step is the development and technology integration and the final step is the usability testing. Figure 3 shows the salat pedagogical framework for autism. The salat pedagogical framework can be used as a guideline for teachers in planning their use of technology for other subjects or topics. This framework is important in giving a form to teachers’ thinking processes and help them make future decisions regarding apps technologies. It also can be a guide decision-making processes and serve as a professional development tool in teaching and learning process.



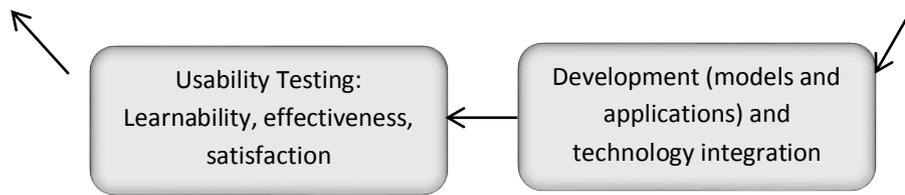


Figure 3 A salat pedagogical framework for app development

4. CHALLENGES

Complexities of Technology Integration

Technology should be applied as a part of teaching learning process and not a separate activity. But teachers acknowledged that “they did not resist technology per se, but agreed that they could not fully integrate it into their own practices because of the organizational, administrative, pedagogical, or personal constraints” [16]. Furthermore, some teachers agree that “technology was more of a problem with multiple facets rather than a solution ...” [16]. However, in a positive situation teacher not only need to know how to use the technology itself, but also need to know how to implement the technology to support the teaching and learning process [17]. Technology should be treated as a part instructional delivery, such as methods of instruction, evaluation, feedback and follow-up initiatives [18]. Apps is an efficient learning tool if the integration process flow between technology, pedagogy and content are well established.

Pedagogy and Technology in Teaching and Learning

Based on Figure 1, technology and pedagogy are interconnected. But the relationship between technology and pedagogy has not been effectively being explored [18]. This is because the pedagogical principles have not been addressed by the educator. Furthermore the school administrators make decisions about technology training without consulting teachers who will integrate technology into the instructional process [19]. [20] believes that “for teachers to use technology in support of their teaching, and to see it as a pedagogically useful tool, they must be confident and competent with the technology they are planning to use (p. 304). Teacher need a preparation phase such as training and restructuring of the syllabus that applies to apps. While the schools or universities need to give their support such as learning content accessibility, policies for proper use of technology, security, teachers' preparation (content experts); and free and high speed Wi-Fi. The learning environment must always connect and reachable.

5. FUTURE WORKS AND CONCLUSION

This app development should be undertaken for the future works as it is beneficial to many teachers and autism children. We had presented the framework suitable for developing salat apps to teach autistic children how they can practice salat. The app can be used repeatedly by the kids to help them remember the movements and recitations for the salat. We also hope that this tool will assist teachers in teaching and learning salat, would motivate the kids learning and can reduce the time taken in teaching them. The use of apps will transform the

way of teaching and learning in terms of portability, flexibility, availability, communication process and the way information is presented.

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REFERENCES

- [1] Wing, L and Gould, J (1979) Severe impairments of social interaction and associated abnormalities in children: epidemiology and classification, *Journal of Autism and Developmental Disorders*, 9 (1), 11–29.
- [2] Van Eeghen, A. M., Pulsifer, M. B., Merker, V. L., Neumeyer, A. M., van Eeghen, E. E., Thibert, R. L., ... Thiele, E. a. (2013). Understanding relationships between autism, intelligence, and epilepsy: a cross-disorder approach. *Developmental Medicine and Child Neurology*, 55(2), 146–53. doi:10.1111/dmcn.12044.
- [3] Johnson, N., Bekhet, A., Robinson, K. & Rodriguez, D. (2013). Attributed Meanings and Strategies to Prevent Challenging Behaviors of Hospitalized Children with Autism: Two Perspectives. In press *Journal of Pediatric Health Care*. <http://dx.doi.org/10.1016/j.pedhc.2013.10.001>.
- [4] Simonoff, E., Pickles, A., Charman, T., Chandler, S., Loucas, T., & Baird, G. (2008). Psychiatric disorders in children with autism spectrum disorders: prevalence, comorbidity, and associated factors in a population-derived sample. *Journal of the American Academy of Child & Adolescent Psychiatry*, 47(8), 921-929.
- [5] Davis TE, Hess JA, Moree BN, Fodstad JC, Dempsey T, Jenskins WS, Matson JL. Anxiety symptoms across the lifespan in people diagnosed with Autistic Disorder. *Research in Autism Spectrum Disorders*. 2011;5:112–118. doi: 10.1016/j.rasd.2010.02.006.
- [6] Tchaconas A, Adesman A. Autism spectrum disorders: a pediatric overview and update. *Curr Opin Pediatr*. 2013;25(1):130–144.
- [7] Pennington, R. C. (2010). Computer-assisted instruction for teaching academic skills to students with autism spectrum disorders: A review of literature. *Focus on Autism and Other Developmental Disabilities*. Advance online publication. doi: 10.1177/1088357610378291.
- [8] Shane H, Albert P. Electronic screen media for persons with autism spectrum disorders: Results of a survey. *Journal of Autism and Developmental Disorders*. 2008;38(8):1499–1508. [PubMed].
- [9] Orsmond, G.I. & Kuo, H. (2011). The daily lives of adolescents with an autism spectrum disorder: Discretionary time use and activity partners. *Autism: The International Journal of Research and Practice*, 15, 579-599. doi:10.1177/1362361310386503.
- [10] Kagohara , D. M. , van der Meer , L. , Achmadi , D. , Green , V. A. , O ' Reilly , M. F. , Mulloy , A. , ... Sigafos , J . (2010) . Behavioral intervention promotes successful use of an iPod-based communication device by an adolescent with autism . *Clinical Case Studies*, 9, 328 – 338.

- [11] Ramdoss S, Lang R, Mulloy A, et al. (2011) Use of computer-based intervention to teach communication skills to children with autism spectrum disorders: A systematic review. *Journal of Behavioral Education* 20: 55–76.
- [12] G. Wurzinger, V. Chang and C. Gütl, “Towards greater flexibility in the learning ecosystem – promises and obstacles of service composition for learning environments,” Proc. of the 2009 3rd IEEE Int. Conf. on Digital Ecosystems and Technologies, June, 2009, pp. 241 – 246.
- [13] Kalhoro, Q.; Chowdhry, L.L.; Abbasi, T.; Abbasi, S., "M-learning -an innovative advancement of ICT in education," Procs. 2010 4th International Conference on Distance Learning and Education (ICDLE), Oct. 2010, pp.148,151, doi: 10.1109/ICDLE.2010.5606017.
- [14] Robert Godwin-Jones, “Emerging Technologies: Mobile Apps for Language Learning,” *Language Learning & Technology*, June 2011, vol. 15, no. 2, pp. 2-11. Available: <http://llt.msu.edu/issues/june2011/emerging.pdf>.
- [15] C. Cynthia and S. Carly, “Learning: Is there an App for that?,” Available: http://ec2-50-16-227-110.compute-1.amazonaws.com/media/store/page-media/funding/151/Cooney%20-LearningApps_FINAL_110410.pdf.
- [16] Leh, A. S. (2005). Learned from service learning and reverse mentoring in faculty development: A case study in technology training. *Journal of Technology and Teacher Education*, 13(1), pp. 25-41.
- [17] Bosch, K.A. & Cardinale, L. (1993). Preservice teacher’ perceptions of computer use during a field experience. *Journal of Computing in Teacher Education*, 10(1), pp. 23-27.
- [18] Mabel CPO Okojie, A. A. O. a. T. C. O.-B., 2006. The Pedagogy of Technology Integration. *The Journal of technology Studies*, XXXII(2).
- [19] Okojie, Mabel CPO, Olinzock, A. A. & Okojie-Boulder, T.C. (2005). *Technology Training Dilemma: A Diagnostic Approach*, An unpublished manuscript.
- [20] Topper, A. (2004). How are we doing? Using self-assessment to measure changing teacher technology literacy within a graduate education technology program, 12(3), pp. 303-317.

PENERIMAAN *eWARIS* : KAJIAN KES

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ABSTRAK

Sistem maklumat pelajar merupakan satu alat untuk berkomunikasi di antara pihak sekolah dan ibu bapa pelajar. Walau bagaimanapun, pelaksanaan sebarang sistem hanya berjaya sekiranya pihak ibu bapa mempunyai sikap yang positif terhadap sistem yang diimplemen. Tujuan kajian ini adalah untuk mengenal pasti faktor-faktor utama yang mempengaruhi penerimaan ibu bapa ke atas sistem maklumat pelajar, *eWaris*. Satu kajian kes kuantitatif menggunakan instrumen soal selidik telah dijalankan ke atas sebuah sekolah rendah di Lembah Kelang. Responden kajian terdiri daripada 76 orang ibu bapa yang secara sukarela terlibat dalam kajian. Model kajian penerimaan yang diperluaskan daripada model TAM dibangunkan berdasarkan enam konstruk: kebergunaan, kemudahan, sokongan pihak sekolah, pengaruh sosial, kualiti maklumat dan kelenturan sistem. Model kajian menyumbang 40% varian untuk menerangkan penerimaan ibu bapa ke atas sistem maklumat pelajar *eWARIS*.

ABSTRACT

Student management system is a tool being used to communicate between schools and parents. However the implementation of any system successful if the the parents has positive attitude towards the implemented sytem. This paper identifies main factors that influenced parents' acceptance on *eWARIS* student management system. A quantitative case study using questionnaire has been conducted on a primary school in Klang Valley. 76 respondents were voluntary participate in the study. Research model which was extended from TAM, consist of six constructs : usefulness, ease of use, support, social influence, information quality and system flexibility. The model explained 40% of varians on parental acceptance of *eWARIS* students system management.

Kata kunci: sistem maklumat pelajar, penerimaan teknologi, eWARIS

1.0 PENGENALAN

Sistem maklumat pelajar (SMP) secara umumnya, dibangunkan bagi membantu memudahkan pengurusan akademik dan hal ehwal pelajar. *eWARIS* merupakan SMP yang digunakan sekolah-sekolah di bawah MUSLEH. Tujuan *eWARIS* dibangunkan untuk memberi kemudahan bukan sahaja kepada pengurusan sekolah tetapi juga kepada ibu bapa atau penjaga dan murid khususnya. *eWARIS* membolehkan ibu bapa atau penjaga membuat pemantauan berterusan terhadap prestasi akademik dan tingkah laku (disiplin) anak-anak melalui internet dan juga sistem pesanan ringkas (SMS). Kajian lepas banyak menunjukkan bahawa pelaksanaan sesuatu sistem tidak akan berjaya sekiranya system yang diaplikasi tidak diterima oleh pengguna. Oleh itu kajian ini dilakukan bagi mengetahui penerimaan ibu bapa terhadap *eWARIS* dan memahami faktor yang mempengaruhi ibu bapa untuk penerima system *eWARIS*.

2.0 SISTEM MAKLUMAT PELAJAR

Sistem maklumat pelajar yang digunakan untuk mengurus pelajar juga dikenali dengan pelbagai nama berbeza : *Student Data System (SDS)*, *Student Management Information System (SMIS)*, *Student Academic Information System (SAIS)*, *Student Information Management System (SIMS)*, dan *Student Data Warehouse (SDW)* (Ngoma 2010). SMP merupakan salah satu modul utama dalam aplikasi sekolah pintar bagi membolehkan ibu bapa atau penjaga memantau perkembangan anak mereka. Secara umumnya fungsi SMP adalah untuk merekod kedatangan pelajar, merekod masalah pelajar; maklumat akademik, permohonan kemasukan, jadual peperiksaan, maklumat yuran, keputusan peperiksaan serta hebahan. Ini membolehkan pihak ibu bapa memantau kemajuan, memotivasi serta membimbing anak-anak dan menyokong aktiviti sekolah.

eWARIS merupakan sistem maklumat pelajar yang digunakan oleh SRI AL-Amin. Secara umumnya, system ini mempunyai tujuh fungsi utama : pendaftaran pelajar baharu, semakan pendaftaran, laporan akademik, laporan bayaran yuran, laporan hafazan, kedatangan pelajar dan laporan disiplin pelajar. Oleh itu, *eWARIS* dibangunkan khusus untuk memberi kemudahan bukan sahaja kepada pengurusan sekolah tetapi juga kepada ibu bapa atau penjaga dan pelajar khususnya. Servis atas talian ini bukan sahaja dapat memudahkan dan menjimatkan masa, malah dapat mengurangkan kos dimana semua urusan boleh dibuat hanya di rumah atau di pejabat sahaja. Seperkara yang penting, *eWARIS* membolehkan ibu bapa atau penjaga membuat pemantauan berterusan terhadap prestasi akademik dan tingkah laku (disiplin) anak-anak secara berterusan melalui internet dan juga sistem pesanan ringkas (SMS). Rajah 1.0 menunjukkan laman utama untuk *eWARIS*.

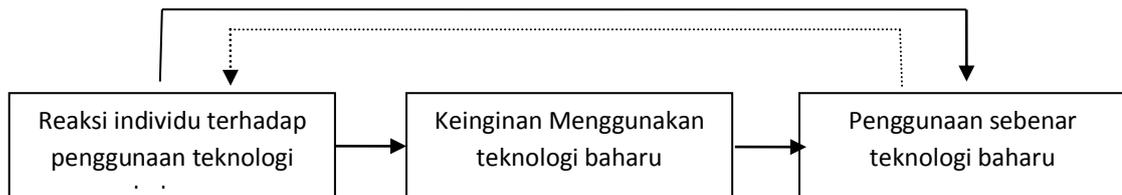


Rajah 1 Laman utama *eWARIS*

3.0 PENERIMAAN TEKNOLOGI BAHARU

Penerimaan pengguna terhadap sesuatu teknologi didefinisikan sebagai kemahuan pengguna untuk mengambil atau mengguna satu teknologi baharu yang direka untuk menyokong sesuatu tugas (Davis et al. 1989). Penyelidikan bagi memahami penerimaan ataupun penolakan pengguna terhadap sesuatu teknologi adalah penting bagi membangunkan kaedah yang lebih baik untuk mereka bentuk serta membangun aplikasi menggunakan teknologi tertentu dan menjangkakan tindak balas pengguna terhadap teknologi baharu tersebut (Venkatesh & Bala 2008). Louho et al. (2006) mendefinisi penerimaan teknologi sebagai tanggapan, penerimaan dan penggunaan sesuatu teknologi baharu oleh pengguna. Azjen (2001) mendefinisikan penerimaan terhadap sesuatu teknologi baru berkait dengan sikap pengguna terhadap teknologi baharu tersebut. Di dalam bidang antara muka manusia-komputer (HCI), sikap boleh dipertimbangkan sebagai salah satu jenis kejuruteraan afektif (Te'eni et al. 2007).

Beberapa model penerimaan teknologi digunakan untuk menerangkan bagaimana pengguna akan menerima teknologi baharu. Kebanyakan model tersebut bermula daripada disiplin psikologi, sistem maklumat dan sosiologi. Venkatesh et al. (2003) memperkenalkan konsep asas bagi penerimaan individu terhadap sesuatu teknologi baharu yang dapat dilihat dalam Rajah 2.0. Model tersebut menunjukkan bahawa penerimaan individu untuk menggunakan teknologi baharu adalah dipengaruhi oleh tanggapan mereka terhadap teknologi tersebut yang seterusnya mempengaruhi keinginan mereka untuk menggunakan teknologi baharu tersebut.



Rajah 2 Konsep Asas Model Penerimaan Pengguna

Terdapat pelbagai model yang digunakan untuk menerangkan penerimaan pengguna terhadap teknologi baharu seperti UTAUT. *Technology Acceptance Model (TAM)* oleh Davis et al. (1989) merupakan model asas bagi menerangkan penerimaan teknologi baharu yang masih digunakan secara meluas dalam bidang sistem maklumat. Pelbagai kajian secara empirikal telah membuktikan bahawa TAM merupakan model yang parsimoni dan tahan lasak (King & He 2006), di mana model tersebut sesuai diaplikasikan untuk pelbagai teknologi dalam masa dan tempat yang berbeza. Kajian lepas menggunakan TAM mendapati bahawa keinginan pengguna terhadap sesuatu teknologi adalah disebabkan oleh kebergunaan dan kemudahan teknologi tersebut. Disebabkan kajian tentang penerimaan pengguna terhadap sesuatu teknologi baharu melibatkan teknologi yang berbeza, lazimnya penyelidik menggabungkan konstruk daripada model asas TAM dengan konstruk lain yang bersesuaian dengan sistem ataupun teknologi yang dikaji (Wojciechowski & Cellary 2013; Balog & Pribeanu 2010).

4.0 METODOLOGI

Penilaian penerimaan pelajar dijalankan bagi mengetahui bagaimana ibu bapa atau penjaga menerima dan menggunakan *eWARIS*. Berdasarkan kajian lepas, enam konstruk berikut dikenalpasti penentu kepada penerimaan pengguna ke atas SMP : kebergunaan, kemudahgunaan, sokongan pihak sekolah , pengaruh sosial, kualiti maklumat dan kelenturan sistem. Penerangan tentang istilah yang diguna adalah seperti berikut:

Kebergunaan – *eWARIS* membantu ibu bapa memantau anak mereka.

Kemudahgunaan - *eWARIS* senang dipelajari dan diguna.

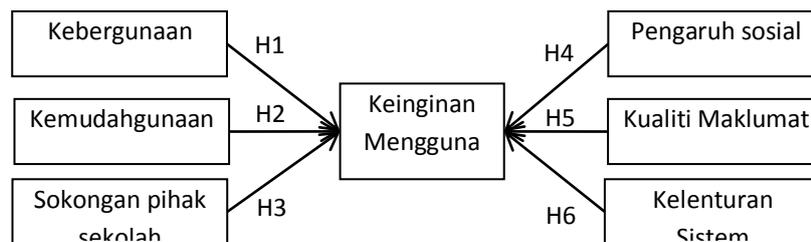
Sokongan pihak sekolah – pihak sekolah menyediakan sokongan untuk membantu ibu bapa menggunakan *eWARIS*.

Pengaruh sosial – pengaruh daripada persekitaran seperti anak-anak, guru dan kawan untuk menggunakan *eWARIS*.

Kualiti maklumat - *eWARIS* mengandungi maklumat yang berguna dan terkini

Kelenturan sistem - *eWARIS* boleh dicapai pada bila-bila masa dan di mana-mana serta dilarikan oleh sebarang platform.

Rajah 3.0 adalah model kajian menunjukkan faktor yang mempengaruhi ibu bapa atau penjaga untuk menerima *eWARIS*.



Rajah 3 Model kajian penerimaan eWARIS

Kajian ini menggunakan kaedah kuantitatif secara kajian kes menggunakan instrumen soal selidik. Soal selidik terdiri daripada 29 item: kebergunaan (3 item), kemudahgunaan (4 item), sokongan sekolah (5 item), pengaruh sosial (4 item), kualiti maklumat (5 item), kelenturan sistem (3 item) dan keinginan mengguna *eWARIS* (5 item). Bagi menilai penerimaan *eWARIS*, jemputan secara emel dihantar kepada 312 ibu bapa yang mendaftar dalam kumpulan *Yahoo* sekolah. 76 ibu bapa iaitu 25% memberikan kerjasama untuk menjawab soal selidik yang disediakan dalam *Google Doc*. Masa selama dua minggu diperuntukkan untuk mendapat maalam balas daripada ibu bapa.

5.0 DAPATAN DAN PERBINCANGAN

Kesemua konstruk mempunyai nilai pekali kebolehpercayaan yang melebihi 0.8 dan boleh diterima untuk digunakan dalam pengujian sebenar (Hair et al. 2010). 76 orang peserta kajian terdiri daripada 43 orang perempuan (56.6%) dan 33 orang lelaki (43.4%). Majoriti responden terdiri berumur di antara 30 ke 49 tahun iaitu seramai 44 orang (57.9%), diikuti 25 orang yang berumur dia antara 50 ke 64 orang (32.9%). 4 orang reponden (5.3%) berumur lebih daripada 65 tahun dan 3 orang (3%) berumur di antara 18 ke 29 tahun. Jadual 1.0 menunjukkan kesimpulan model. Dapatan menunjukkan bahawa model kajian menyumbang

sebanyak 40.2% varian bagi menerangkan faktor yang mempengaruhi ibubapa menerima *eWARIS*.

Jadual 1: Kesimpulan Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.634	.402	.349	4.26009

Jadual 2.0 dapatan bagi hipotesis kajian.

Jadual 2: Kesimpulan Hipotesis

No.	Hipotesis	Dapatan
H1	Kebergunaan mempunyai perkaitan dengan keinginan ibu bapa untuk mengguna <i>eWARIS</i>	Terima
H2	Kemudahan mempunyai perkaitan dengan keinginan ibu bapa untuk mengguna <i>eWARIS</i>	Tolak
H3	Sokongan pihak sekolah mempunyai perkaitan dengan keinginan ibu bapa untuk mengguna <i>eWARIS</i>	Tolak
H4	Pengaruh sosial mempunyai perkaitan dengan keinginan ibu bapa untuk mengguna the <i>eWARIS</i>	Terima
H5	Kualiti maklumat mempunyai perkaitan dengan keinginan ibu bapa untuk mengguna <i>eWARIS</i>	Tolak
H6	Kelenturan sistem mempunyai perkaitan dengan keinginan ibu bapa untuk mengguna <i>eWARIS</i>	Tolak

6.0 KESIMPULAN

Berdasarkan dapatan hasil kajian terdapat beberapa impikasi mengenai penerimaan ibu bapa terhadap sistem *eWARIS*. Keputusan menunjukkan bahawa ibu bapa menganggap bahawa sistem *eWARIS* adalah berguna dan membantu mereka untuk memantau anak-anak. Walau bagaimana pun, sistem tersebut perlu diperbaiki, contohnya dari segi antara muka bagi memudahkan ibu bapa untuk menggunakan sistem tersebut. Selain itu, pihak sekolah perlu menggiatkan usaha untuk menggalakkan ibu bapa mengguna sistem tersebut. Pengaruh sosial daripada kawan-kawan mempengaruhi ibu bapa untuk mengguna *eWARIS*. Kualiti maklumat harus dipertingkatkan bagi menggalakkan ibu bapa untuk mengguna *eWARIS*. Di samping itu, kadang-kadang ibu bapa mempunyai masalah dari segi capaian untuk menggunakan *eWARIS*.

PERAKUAN

Penyelidik merakamkan terima kasih kepada guru besar, dan ibu bapa SRI Al-Amin yang bekerjasama dalam kajian ini.

RUJUKAN

- Azjen I. 2001. Nature and operation of attitudes. *Annual Review of Psychology* 52: 27–58.
- Balog, A. & Pribeanu, C. 2010. The role of perceived enjoyment in the students' acceptance of an augmented reality teaching platform: Structural Equation Modelling approach. *Journal Studies in Informatics and Control* 19 (3) : 319-330.
- Chen, K.Y., & Chang, M.L. (2013). User acceptance of “near field communication” mobile phone service: An investigation based on the “unified theory of acceptance and use of technology” model. *The Service Industries Journal*, 33(6), 609–623.
- Davis, F. D., Bagozzi, R. P. & Warshaw, P. R. 1989. User acceptance of computer technology: a comparison of two theoretical models. *Journal of Management Science* 35(8) : 982-1003.
- Hair, J. F., Black, B., Babin, B., Anderson, R. E. & Tatham, R. L. 2010. *Multivariate Data Analysis: A Global Perspective*. New Jersey, USA: Pearson Education Inc.
- King, W. R. & He, J. 2006. A meta-analysis of the technology acceptance model. *Journal of Information & Management* 43(6) : 740-755.
- Louho, R., Kallioja, M. & Oittinen, P. 2006. Factors Affecting the Use of Hybrid Media Applications. *Journal Graphic Arts in Finland* 35 (3) : 11-21.
- Ngoma, S. (2010). Improving Student Learning: A Strategic Planning Framework for an Integrated Student Information System in Charlotte-Mecklenburg Schools, PhD Thesis, Capella University.
- Te'eni, D., Carey, J. & Zhang, P. 2007. *Human-Komputer Interaction: Developing Effective Organizational Information Systems*. USA : John Wiley & Sons, Inc.
- Venkatesh, V. & Bala, H. 2008. Technology acceptance model 3 and a research agenda on interventions. *Decision Sciences* 39(2): 273-315.
- Venkatesh, V., Morris, M. G., Davis, G. B. & Davis, F. D. 2003. User acceptance of information technology. *Journal MIS Quarterly* 27(3): 425-478.
- Wojciechowski, R. & Cellary, W. 2013. Evaluation of learners' attitude toward learning in ARIES augmented reality environments. *Computers & Education* 68 : 570–585.

DEVELOPING LEADERSHIP CAPACITY IN SCHOOL STUDENTS: AL-AMIN LEADERSHIP MODEL

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ABSTRAK

Kertas kerja ini membentangkan model kepimpinan novel untuk pelajar sekolah dari Pusat Pendidikan Al-Amin (PPAA). Keperluan untuk mempunyai program pembangunan bagi pembinaan keupayaan kepimpinan yang komplemen dengan sistem pendidikan sekolah adalah amat penting untuk memastikan mereka boleh menjadi pemimpin yang berkesan yang boleh membawa perubahan positif kepada negara, organisasi, atau mana-mana entiti perniagaan. Model ini adalah berdasarkan kepada kepimpinan Islam yang merujuk kepada ayat-ayat Al-Quran dan Hadith yang menyokong nilai-nilai/kualiti penting pemimpin. Model yang dicadangkan terdiri daripada matlamat muktamad, kualiti dan kemahiran kepimpinan yang perlu diperolehi oleh pelajar-pelajar sekolah. Model ini mewakili PEMIMPIN berILTIZAM dengan sifat J-TASK melakukan ISLAH terhadap MANUSIA dengan kemahiran K⁴ dan bersama-sama ISTIQAMAH untuk mencapai MATLAMAT, MI³. Pelaksanaan model yang dicadangkan di sekolah PPAA juga dibentangkan dalam kertas kerja ini. Model yang dicadangkan dimasukkan ke dalam sistem pendidikan di PPAA yang terdiri daripada dua aliran kurikulum, kokurikulum dan kurikulum tambahan.

ABSTRACT

This paper presents a novel leadership model for school students of Pusat Pendidikan Al-Amin (PPAA). The need to have a complement development program for leadership capacity building in school education system is critically important to ensure they can become effective leaders that can bring positive changes for the nation, organizations, or any business entities. The model is based on Islamic beliefs of leadership as enjoined by al-Quran and al-Hadith that supports the important values/qualities of a leader. The proposed model comprised of ultimate goals, leadership qualities and skills that need to be acquired by the school students. The model represents A COMMITTED (*berILTIZAM*) LEADER with the capacity of J-TASK do TRANSFORM (*ISLAH*) using K⁴ skills on HUMAN and work together STEADFASTLY (*ISTIQAMAH*) to achieve the GOAL, MI³. The implementation of the proposed model in the PPAA schools is also presented in the paper. The proposed model is embedded in the education system of PPAA that consists of two streams of curriculum, co-curriculum and extra curriculum.

Keywords: school students leadership, al-amin leadership model, islamic leadership, PPAA

1.0 INTRODUCTION

Developing leadership capacity amongst the school students is critically important for the students and for the future of the communities, nation and the world. The school students must be encouraged and should be provided with opportunities to learn and practice leadership skills. It is of paramount important for schools to focus on creating highly capable, able and strategic future leaders. It has been mentioned that leadership is one part of lifelong learning and comprises of multidimensional aspects like skills, attitudes, knowledge, experiences and processes (Hay and Dempster, 2004). The students must be groomed earlier in schools as leaders, and there must be a leadership capacity building program that will develop them to become effective leaders in government, business and industrial companies, institution, and community.

Leadership skills development is not through reading textbooks or listening to lectures only, but various platforms must be provided for students to exercise and enhance their ability and skill and experience through this process. If the students do not hold any positions of leadership, they will not have the opportunities for leadership experience and training. Thus the school plays important role in facilitating the incorporation of leadership skills into the students' daily lives. Schools can create a foundation for student leadership skills development as a complement to the existing preschool, primary, and secondary school education system. This paper will discuss the Al-Amin Leadership Model as adopted in Pusat Pendidikan Al-Amin (PPAA) education system. Prior to that, leadership from Islamic viewpoint is presented. Then this paper will proceed to discussion on the implementation of the leadership program in the PPAA's education system.

2.0 LEADERSHIP FROM ISLAMIC VIEWPOINT

Before further elaboration on leadership from Islamic perspectives, we would like to highlight few styles of leadership that have been actively studied and presented in many publications.

2.1 Leadership Styles

Leadership style is a pattern of behavior when dealing with members in an organization or groups. A laissez-faire leadership also known as delegative leadership gives full autonomy to the followers to make decisions and solve their problem. This leader will provide tools and make him/herself available for consultation. It is suitable if the followers or group members have high level of passion and strong internal drive for motivation to work. This leadership style can lead to chaos and inefficiency as no defined plan in accomplishing goal and objectives (Goodnight, 2004; Skogstad *et al.*, 2007).

Bhatti *et al.* (2012) had studied the effects of autocratic and democratic style of leadership in public and private schools and they found that leadership style has a positive impact on job satisfaction and public teachers have high level of job satisfaction as compared to private teachers (Bhatti *et al.*, 2012). The staffs are happy if they can voice their opinions and exchange their views, which will create the sense of ownership. The extreme distinct between democratic and autocratic leadership style has impact on the employee's job satisfaction. Autocratic leadership style allows leaders to possess total authority and dictate

all work process on employees (Goodnight, 2004; Bhatti *et al.*, 2012). The final decision from the autocratic leaders gives no room for the employees to express their opinions.

On the other hand, democratic (or participative) leadership style encourages inputs from group members in the decision making process even though the leader owns the final decision. The members feel more engaged that could lead to higher productivity (Goodnight, 2004; Bhatti *et al.*, 2012).

Transactional leadership motivates the team members and set predetermined goal together. The team members comply with the direction and accomplished the goal. Upon achieving the goal, they will receive rewards (Jamaludin *et al.*, 2011).

The transformational leader inspires team members to do more than originally expected (Jamaludin *et al.*, 2011). They may be directive or participative (Bass, 1999). Thus it will enhance productivity and efficiency through communication and high visibility. This style of leadership also increases team members' trust and commitment. Gumusluoglu and Ilsev (2009) pointed that transformational leadership style has positive impact on employees' creativity and the organizational innovation.

Jamaludin *et al.* (2011) had mentioned that there is distinct and no overlapping roles between transformational and spiritual leadership. The purpose of spiritual leadership is to create internally motivated employees in an organization towards the true meaning of human life that can bring them together upon shared values and purpose in life. The spiritual well being of the members will provide the positive influences on their performance and increases their commitment and productivity.

2.2 Youth Leadership

In NASET (2005), Wehmeyer, Agran, and Hughes defined youth leadership as:

“Youth leadership is part of the youth development process and has internal and external components, such as: (a) the ability to analyze one's own strengths and weaknesses, set personal and vocational goals, and have the self-esteem, confidence, motivation, and abilities to carry them out (including the ability to establish support networks in order to fully participate in community life and effect positive social change); and (b) the ability to guide or direct others on a course of action, influence the opinions and behaviors of others, and serve as a role model.”

Kahn, Hewes and Ali (2009) proposed the following definition of youth leadership: “young people empowered to inspire and mobilise themselves and others towards a common purpose, in response to personal and/or social issues and challenges, to effect positive change.”

Thus, there is no doubt about the importance of creating a suitable leadership capacity building program for school students. However, there must be a model that can be used in developing the suitable leadership qualities, skills, competency and attitudes. Rickets and Rudds (2002) had proposed five dimensions of the conceptual model such as: (i) Leadership Knowledge and Information, (ii) Leadership Attitude, Will, and Desire, (iii) Decision Making, Reasoning, and Critical Thinking, (iv) Oral and Written Communication Skills, and (v) Intra and Interpersonal Relations. The model comprised of five dimensions and three stages of development, that is, Awareness, Interaction and Integration. The students learn about each dimension begin with awareness level that provide the introduction stage, then the

students will explore the leadership dimension at the interaction stage, and finally the student will use and practice the leadership dimension at integration stage (Rickets and Rudds, 2002).

2.3 Leadership from Islamic Perspective

Islamic teaching on leadership stresses about the qualities, values and characteristics and can be found from verses of the Qur'an and Ahadith. Researches on Islamic leadership are overwhelming and various approaches are used in discussing this subject matter. All researchers studying Islamic leadership used Qur'an and Hadith as their main sources. There are various aspects of leadership but only few works are highlighted in this section.

From Abassi *et al.* (2010) study on leadership model, they exposed several weaknesses in contemporary leadership models, that is, lacking of values and ethics, and accountability. They mentioned about standard values and ethics as the primary attributes of a leader and the need of secondary attribute to assist leaders in sustaining their tasks according to the goals of the organization.

We agree that the Prophet Muhammad (SAW) was a great leader of extraordinary qualities whom transformed the uncivilized people (pre-Islamic Arabs) to become the best society within a brief span of twenty three years. Prophet Muhammad (SAW) brought changes which were in line with the moral commandments and laws of the Qur'an. He not only showed the people of the Book and the idolators as to how to return to the straight path, but also produced a model, to be emulated by the rest of humanity, by making reforms in the Arabian society in social, cultural, economic and spiritual areas. He was sent to mankind to educate and lead human being to the correct path as ordained by Allah SWT and indeed Prophet Muhammad (SAW) is the role model.

“Indeed in the Messenger of Allah (Muhammad) you have a good example to follow for him who hopes in (the Meeting with) Allah and the Last Day and remembers Allah much.” (Quran, Al-Ahzab, 33:21)

3.0 AL-AMIN LEADERSHIP MODEL

We developed the Al-Amin Leadership Model by referring to the Qur'an as the first and main source of knowledge of leadership, and the related Hadith compilations as the second source. We also refer to the studies done by Beekun and Badawi (1998), Beekun and Badawi (1999) and Abassi *et al.* (2010) in developing the model.

First and foremost, we must ask the basic question about the purpose of life and with this clear vision, the Islamic leadership centers on willingness submission to The Creator. To be subservient to Allah SWT, the leader must have strong belief and high moral values to seek Allah's acceptance. The model in Figure 1 presents: A COMMITTED (*berILTIZAM*) LEADER with the capacity of J-TASK to TRANSFORM (*ISLAH*) using K⁴ skills on HUMAN and work together STEADFASTLY (*ISTIQAMAH*) to achieve the GOAL, MI³. The goals are i) *Mardhatillah*: Always strive to seek Allah's pleasure, ii) *Ihsan*: Always aim for excellence, iii) *Ithar*: Always put others first and iv) *Islah*: Always do changes/transformations for the better. It has been mentioned clearly about the ultimate goal in our life as stated in the Quran.

“Only those are Believers who have believed in Allah and His Messenger, and have never since doubted, but have striven with their belongings and their persons in the Cause of Allah: Such are the sincere ones.” (Quran: al-Hujurat, 49:15)

Being *Ihsan* is an act of excellence in all aspects of life, which include being excellent in spiritual conducts and demonstrating good social behavior with friends, neighbours, relatives, parents and other beings.

Those who believe and do righteous good deeds, there is no sin on them for what they ate (in the past), if they fear Allah (by keeping away from His forbidden things), and believe and do righteous good deeds, and again fear Allah and believe, and once again fear Allah and do good deeds with *Ihsan* (perfection). And Allah loves the good-doers. (Quran, al-Maidah, 5:93)

Ithar gives preference to others over oneself when doing a good deed, that is, giving priority to the common interests of the community over one's own interests as described:

“But give them preference over themselves, even though poverty was their (own lot).” (Quran, al-Hashr, 59:9).

Islah appears several times in the Qur'an and which conveys the idea of improving, purifying, reconciling, repairing and reforming. This is the meaning the prophet Shu'ayb conveys to his people when he says in the Qur'an: “I do not desire, in opposition to you, to do that which I forbid you to do. I desire nothing but reform [betterment, purification] (al-islah) as far as I am able.” (Quran, Hud, 11:88).

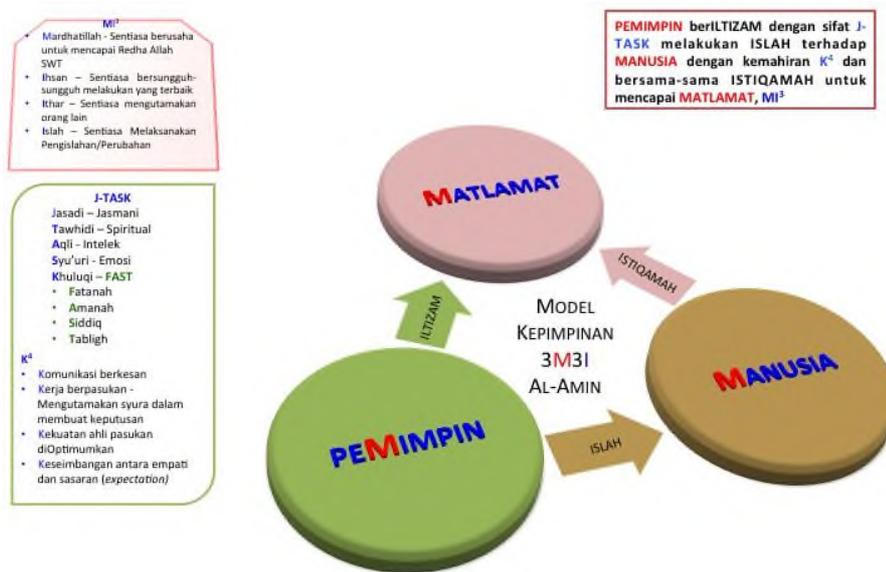


Figure 1 Al-Amin Leadership Model

Next, the attributes of a leader must be part of the model as shown in Figure 1, J-TASK is acronym for the following leadership qualities:

- *Jasadi*: physically strong with good health and body. Leaders must concern about their body and take good nutrition in daily life.

- *Tawhidi*: Believe in Allah as mentioned in the Quran; “He is the Lord of the Heavens and the Earth and all that is in between them, so worship Him and be patient in His worship; do you know any equal to Him?” (Quran, Maryam, 19:65)
- *Aqli*: Allah created man with the intellect for acquiring knowledge. Allah taught the father of humankind, Adam (as), the names of everything as mentioned in the Quran: “He taught Adam all the names of everything.” (Quran, al-Baqarah, 2:31). Adam (as) was taught language skills, and how to apply knowledge, make plans and decisions, and achieve goals.
- *Syu’uri*: Capable in managing own or other people’s emotion such as anger, shameful, fear, sad and happy. Leaders with high *syu’uri* is capable of recognizing their own feeling (self awareness) which can help them to in making decisions in their life. “And be not like those who forsook Allah, so He made them forsake their own souls: these it is that are the transgressors.” (Quran, al-Hashr, 59:19)
- *Khuluqi (Akhlaq)* with these characteristics as shown by the Prophet Muhammad (saw): FAST, that is, *Fatanah* (Wisdom), *Amanah* (Trustworthy), *Siddiq* (Honest) and *Tabligh* (Spread Out Correct Information). “And indeed, you are of a great moral character.” (Quran, al-Qalam, 68:4)
“When their brother Noah said to them, Will you not fear Allah ? Indeed, I am to you a trustworthy messenger.” (Quran, as-Syura, 26:106-107)
“Not upon the Messenger is (responsibility) except [for] notification. And Allah knows whatever you reveal and whatever you conceal.” (Quran, al-Maidah, 5:99)

In order for the leader can carry out their responsibilities effectively, they must be equipped with suitable skills as shown in Figure 1. Those skills denoted as K⁴ comprises of:

- Effective communication (*Komunikasi berkesan*)
- Teamworking (*Kerja berpasukan*)
- Optimize the strength of team members (*Kekuatan ahli dioptimakan*)
- Balanced between empathy and expectation. (*Keseimbangan antara empati dan sasaran*)

4.0 IMPLEMENTATION IN THE AL-AMIN EDUCATION SYSTEM

PPAA integrated education not only provides two streams of curriculum consisting of aqli and naqli knowledge conducted in parallel but also there is effort to integrate between both. This means that the naqli knowledge curriculum (Al-Amin Islamic Integrated Curriculum) and its application is translated into changing environment. And aqli knowledge curriculum (National curriculum) is delivered to meet the Islamic worldview. Al-Amin education system consists of curriculum, co-curriculum and extra curriculum programs. Figure 2 shows the education system adopted in PPAA. The subjects for Al-Amin Islamic Integrated Curriculum are *Tassawur Islami*, *Tajweed*, *Jawi*, Arabic language, Quran Memorization and Practicals. The extra curriculum program such as Tarbiyah program that includes *usrah*, *tamrin*, *qiamulail* and weekly *tazkirah* supports the education system to generate the salih wa muslim students as aligned with the school mission. Students are also exposed to community service like fundraising for the unfortunates such as the Palestine people and Wafd al-Amin that provides services to selected rural areas

Table 1: Mapping The Leadership Model in the Al-Amin Education System

Program	Item	LEADER / PEMIMPIN								LEAD HUMAN BEING / MEMIMPIN MANUSIA			
		Jasadi	Tawhidi	Aqli	Syu'uri	Khuluqi -FAST				Effective communication	Teamworking	Optimize the strength of team members	Balanced between empathy and expectation
						Fatani	Amani	Siddiq	Tabligh				
Curriculum	ScienceOn1 - Tawhid Across National Curriculum			√	√					√	√	√	√
	Other Elements Across Curriculum: Creativity and Innovation, ICT, Entrepreneurship	√				√			√				
	Involvement on co-academic program		√			√	√	√	√				
Co-curriculum	Society/Club						√			√	√	√	√
	Uniform Unit - Survival	√								√	√	√	√
	Sports	√			√		√						
	Competition between schools	√				√			√				
Extra Curriculum Tarbiyah	Halaqah / Usrah		√					√	√				
	Daurah		√						√				
	Katibah	√								√	√	√	√
	Mukhayyam		√		√		√						
	Rehlah/Jaulah			√					√				
Extra Curriculum Leadership	Muktamar			√	√				√	√	√	√	
Extra Curriculum Leadership	Wafdul Amin	√							√	√	√	√	

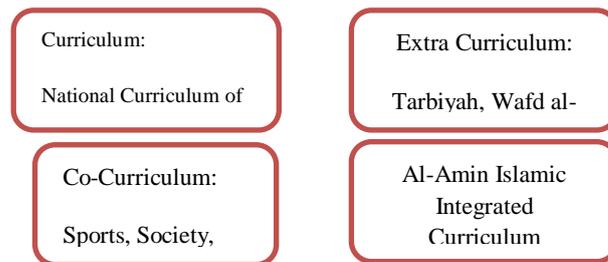


Figure 2 Al-Amin Education System

Thus the model in Figure 1 is embedded into the education system by mapping all the program/curriculum with the leadership qualities and skills that must be acquired by the students. The teachers will assess the students' involvement according to the qualities and skills as shown in Table 1. Instruments are developed to assess the students' achievement for each construct related to the qualities and skills as shown in Table 1.

5.0 CONCLUSION

Every man is a leader and the important role of a leader is mentioned in a hadith narrated by Al-Bukhari; Abdullah bin Umar reported: The Messenger of Allah, peace and blessings be upon him, said, "Every one of you is a shepherd and is responsible for his flock. The leader of people is a guardian and is responsible for his subjects. A man is the guardian of his family and he is responsible for them. A woman is the guardian of her husband's home and his children and she is responsible for them. The servant of a man is a guardian of the property of his master and he is responsible for it. Surely, every one of you is a shepherd and responsible for his flock." Great leaders should be groomed since school years as presented in this paper. The students must see themselves as leaders whereby they can transform their peers and relatives by enjoining good deeds and become exemplary to them. Future works will include the empirical study on the effectiveness of the proposed model and suitable training programs will be suggested.

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REFERENCES

- Abbasi, A. S. and Rehman, K. U. and Bibi, A. 2010. Islamic Leadership Model an Accountability Perspective. *World Applied Sciences Journal*, 9(3): 230-238. Available at SSRN:<http://ssrn.com/abstract=1877599>.
- Bass, B. M. 1999. Two Decades of Research and Development in Transformational Leadership. *European Journal of Work and Organizational Psychology*, 8(1): 9-32.
- Beekun, R. and Badawi, J. 1998. Leadership: An Islamic Perspective.
- Beekun, R. and Badawi, J. 1999. The Leadership Process in Islam. Available at: <http://myroinc.yolasite.com/resources/Leadership%20Process%20in%20Islam.pdf>

- Bhatti, N., Maitlo, G. M., Shaikh, N., Hashmi, M. A., and Shaikh, F. M. 2012. The Impact of Autocratic and Democratic Leadership Style on Job Satisfaction. *International Business Research*, 5(2). ISSN: 1913-9004. DOI: 10.5539/ibr.v5n2p192
- Goodnight, R. 2004. Laissez-faire leadership. In Goethals, G., Sorenson, G. and Burns, J. (Eds.), *Encyclopedia of Leadership*. Thousand Oaks, CA: SAGE Publications: 821 – 824. Inc. DOI: <http://dx.doi.org/10.4135/9781412952392.n189>. Available at: http://www.sagepub.com/northhouseintro2e/study/chapter/encyclopedia/encyclopedia3_2.pdf. [Accessed on 27 August 2014].
- Gumusluoglu, L. and Ilsev, A. 2009. Transformational Leadership, Creativity, and Organizational Innovation. *Journal of Business Research*, 62(4): 461-473.
- Hay, I. and Dempster, N. 2004. Student Leadership Development Through General Classroom Activities. *Educating: Weaving Research into Practice*, 2: 141-150
- Jamaludin, Z., Rahman, N. M. N. A., Makhbul, Z. K. M. and Idris, F. 2011. Do Transactional, Transformational and Spiritual Leadership Styles Distinct? : A Conceptual Insight. *Journal of Global Business & Economics*, 2(1): 73-85. Global Research Agency. Available at: <http://ra.ocls.ca/ra/login.aspx?url=http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=57811512&site=bsi-live>.
- Kahn, L., Hewes, S. and Ali, R. 2009. Taking the Lead: Youth Leadership Training and Practice. Available at: <http://youngfoundation.org/wp-content/uploads/2012/10/Taking-the-Lead-October-2009.pdf>
- NASET, 2005. National Standards & Quality Indicators: Transition Toolkit For Systems Improvement Transition Toolkit For Systems Improvement - 2005 National Leadership Summit Edition. Available at: <http://www.ncset.org/teleconferences/docs/TransitionToolkit.pdf>. [Accessed on 27 August 2014].
- Ricketts, J.C. and Rudd, R.D., 2002. A Comprehensive Leadership Education Model to Train, Teach, And Develop Leadership In Youth. *Journal of Career and Technical Education*, 19(1): 7-17. Available at: <http://scholar.lib.vt.edu/ejournals/JCTE/v19n1/ricketts.html>.
- Skogstad, A., Einarsen, S., Torsheim, T., Aasland, M. S., and Hetland, H. 2007. The Destructiveness of Laissez-Faire Leadership Behavior. *Journal of Occupational Health Psychology*, 12(1): 80-92.

MURABBI DEVELOPMENT PROGRAM: AN EXPERIENCE IN PUSAT PENDIDIKAN AL-AMIN

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ABSTRAK

Salah satu faktor kejayaan kritikal bagi sistem pendidikan adalah pendidik yang berkeelayakan dan komited atau murabbi. Kertas kerja ini membincangkan peranan yang penting dalam program pembangunan untuk melahirkan seorang murabbi. Program pembangunan murabbi yang telah dilaksanakan di Pusat Pendidikan Al-Amin terdiri daripada tarbiyah, kemahiran dan pengetahuan yang diperlukan untuk pengajaran. Artikel ini bertujuan untuk menjelaskan lagi komponen yang terdapat dalam program pembangunan murabbi.

ABSTRACT

One of the critical success factor for an education system is qualified and committed educators or murabbi. This paper discusses the important role of development program in becoming a murabbi. The murabbi development program comprises the tarbiyah, competency and knowledge required for teaching that has been implemented in Pusat Pendidikan Al-Amin. This article seeks to explain further the components of the murabbi development program.

Keywords: murabbi, pusat pendidikan al-amin, murabbi development program+

1.0 INTRODUCTION

The most basic question that should be asked is why I choose to become a teacher? There had been various studies made by few researchers regarding the factors that influence individual to choose teaching profession. Halimah Harun (2006) had pointed that student teachers' whom have positive attitude, highly interested and motivated in teaching performed better in teaching practice. Halimah Harun (2006) also mentioned that most of the factors that influence them to become teachers were quite similar from one country to another even with different samples and backgrounds. She (Halimah Harun, 2006) said among the main factors were high status, noble job, monetary benefits and contribution to the nation. And other factors that also motivated them to become teachers were interest and ambition since they were kids, love children, guaranteed job, shorter working hours and long holiday (Halimah Harun, 2006). Siti Zafirah (2008) mentioned in her thesis that some of them choose to become teachers as their last option after failed to get other jobs. In another study by Muhammad Nurfaahmi *et al.* (2011) emphasized if the teachers were not interested with the profession, it will affect the performance of the teachers in delivering the knowledge comprehensively and integratedly in accordance to the education philosophy that will lead to negative impact on the students.

The education system is aiming to produce future students that are capable to withstand challenges of the 21st century that is the students must be equipped with six key attributes so that they are globally competitive; i) knowledge, ii) thinking skills, iii) leadership skills, iv) bilingual proficiency, v) ethics and spirituality and vi) national identity (Malaysia Education Blueprint 2013-2025, 2012). Thus there is an important requirement for the teachers to be great educators so that this aim can be realized. Then these teachers must be trained to become great educators by providing suitable training programs to develop them, thus will improve their ability to educate the students.

This paper will discuss about murabbi and its definition, teachers development program and finally murabbi development program that had been implemented in Pusat Pendidikan Al-Amin.

2.0 DEFINITION OF MURABBI

The concept of Murabbi was practised in early period of Muslim civilisation. So it is not something new. We would like to define murabbi as it is related to great educators. Murabbi is one who not only teaches but also educating, guiding his/her students to become a complete muslim. This muslim is a truly practising believer of Islam who can contribute back to the humanity.

The teacher as a murabbi becomes a role model and exemplary of adab for the students. The most effective murabbi is who continuously conscious of his actions, attitudes and words because all these are seen and emulated by the students.

“Just as We have sent among you a messenger from yourselves reciting to you Our verses and purifying you and teaching you the Book and wisdom and teaching you that which you did not know.”

(Al Baqarah :151)

3.0 PROPHET MUHAMMAD SAW AS MURABBI

The best example of Murabbi is our beloved Prophet Muhammad (SAW) himself. He was the universal murabbi, who brought the comprehensive universal message of Allah that suits all mankind. The world has to have the leaders of this kind so as to keep the world moving forwards. We need a practical example for us to regulate our behaviour under various emotional conditions. We look at non other than our beloved prophet Muhammad .

The prophet practised what he preached and guided people in every aspect of life. He practiced with utmost sincerity and honesty what he communicated to others. We have witnessed many leading persons in the history who they themselves did not practice what they preached or propagated. Their ideas did not have a lasting effect on people and the systems they established did not last long. However, the Prophet (SAW) while conveying Allah's message to people he has to endure all kinds of hardships and persecutions, such as sleeping on earth, suffering hunger for several days, being expelled from his homeland, becoming subject to mockeries and insults, and so on. He is as murabbi must possess a high moral conduct. Allah says in Surat al- Qalam: ۞

وَأِنَّكَ لَعَلَىٰ خُلُقٍ عَظِيمٍ

“And you are surely on an exalted standard of character” (al-Qalam, 68:4).

The Prophet (SAW) was born and lived in the heart of a desert which was one of the most uncivilized part of the then inhabited world and where people were immersed in the worst kinds of immorality and idol worship. Being illiterate and an orphan, Allah brought him up to be the most virtuous human being with the highest morality and best conduct. Prophet (SAW) himself said:

أَدَّبَنِي رَبِّي فَأَحْسَنَ تَأْدِيبِي

“Indeed I was sent to make perfect the moral conduct.”

A murabbi must know his subjects very well in order to educate them and urge them to the realization of his cause. The Prophet (SAW) knew everyone to whom he would convey his message. He knew the person's detail character, his abilities, shortcomings, feelings and level of understanding. Besides, he also knew very well how to act in various conditions and gave the best solutions in times of crises. He succeeded in bringing the most refined, well-mannered and civilized society from an extremely backward, uncivilized and rough people of the seventh- century Arabia. He made them teachers, and masters, especially, to the civilized nations. Through his limitless love, compassion, forgiveness and tolerance, he turned extremely cruel, warring people into the best community in human history. May Allah give us the tawfiq and the strength to follow in the footsteps of our beloved Prophet.

A character of the murabbi (the teacher) is to remain calm and composed, especially under difficult and testing conditions.

“My Lord educated me and taught me good manners, and how well he educated me and how beautifully He taught me good manners!”

Here we would like to relate a story showing how the Prophet responded to request for zina. Imam Ahmad recorded Abu Umamah saying that a young man came to the Prophet and said, "O Messenger of Allah! Give me permission to commit zina (i.e., adultery, fornication, or unlawful sex)." The people surrounded him and rebuked him, saying, "Stop! Stop!" But the Prophet (SAW) said, "Come close." The young man came to him, and the Prophet said, "Sit down." So he sat down. The Prophet said, "Would you like it (i.e., the act of zina) for your mother? He said, "No, by Allah, may I be ransomed for you." The Prophet said, "Neither do the people like it for their mothers." The Prophet said, "Would you like it for your daughter?" He said, "No, by Allah, may I be ransomed for you." The Prophet said, "Neither do the people like it for their daughters." The Prophet said, "Would you like it for your sister?" He said, "No, by Allah, may I be ransomed for you." The Prophet said, "Neither do the people like it for their sisters." The Prophet said, "Would you like it for your paternal aunt?" He said, "No, by Allah, O Allah's Messenger! May I be ransomed for you." The Prophet said, "Neither do the people like it for their paternal aunts." The Prophet said, "Would you like it for your maternal aunt?" He said, "No, by Allah, O Allah's Messenger! May I be ransomed for you." The Prophet said, "Neither do the people like it for their maternal aunts. Then the Prophet Muhammad (SAW) put his hand on him and said, "O Allah! Forgive his sin, purify his heart and guard his chastity." After that the young man hated this sin forever.

In another story, Anas ibn Malik (RA), said: “While we were in the mosque with the Messenger of Allah, a Bedouin came and began to urinate in the mosque. The Companions of the Messenger of Allah said, ‘Stop it! Stop it!’ But the Messenger of Allah said, ‘Do not interrupt him; leave him alone.’ So they left him until he had finished urinating, then the Messenger of Allah (SAW) called him and explained to him that in mosques, it was not right to do anything like urinating or defecating; mosques are only for remembering Allah, praying, reading the Qur’an, and so on. Then he commanded a man who was there to bring a bucket of water and the place was cleaned. The principle which the Prophet (SAW) followed in dealing with this mistake was to treat the man gently, and not to be harsh with him

4.0 TEACHERS DEVELOPMENT PROGRAM

OECD Teaching and Learning International Survey (TALIS) has begun their large scale international survey over 24 countries in 2008 and expanded to 34 countries in 2013. Their aim was to study the working conditions of the teacher and learning environment in the school. The findings can provide the basis in improving policies and strategies for developing high quality teachers workforce. TALIS (2018 and 2013) has defined professional development program as any activities that can upgrade the teachers skill and knowledge and thereby can improve the teachers teaching and learning practice. Among the objectives of the teachers professional development that had been mentioned in TALIS (2008) were:

- to update the current knowledge of a subject
- to update the skill, attitude and approaches
- to enable the teachers to apply changes made to curricula or other related matters in teaching
- to enable schools to develop and apply new strategies regarding the curriculum and other matters concerning teaching practice
- to help weaker teachers to become more effective

They (TALIS, 2018; TALIS, 2013) defined professional development for teachers as “Professional development is defined as activities that develop an individual’s skills, knowledge, expertise and other characteristics as a teacher.’ The activities also covers various and diverse type of conducting the professional development program such as courses/workshops, Education conferences or seminars, observation visits to other schools, observation visits to business premises, public organisations, or non-governmental organisations, in-service training courses, qualification programmes (e.g. a degree programme), participation in a network of teachers formed specifically for the professional development of teachers, individual or collaborative research on a topic of professional interest and mentoring and/or peer observation and coaching as part of a formal school arrangement.

From one of the question asked in the survey 2013 (TALIS, 2013), the teachers responded the top three that most needed for professional development were teaching students with special needs, information and communication technology (ICT) skills for teaching and using new technologies in the workplace as shown in Figure 1. Teaching students with special needs was also ranked the top as in 2008 TALIS survey. The needs in the top three ranking show that the teachers should be equipped with the knowledge, skill, and attitudes in special needs education as probably those disadvantaged children in learning were not being handled with more appropriate and suitable approach of teaching and learning process. Children nowadays whom are already exposed to various type of ICT gadgets and tools since they were at younger age, becomes a great challenge for teachers to also make full use of ICT tools in classroom so that the teaching and learning process will be more effective, interesting and enjoyable.

Percentage of lower secondary education teachers indicating they have a high level of need for professional development in the following areas

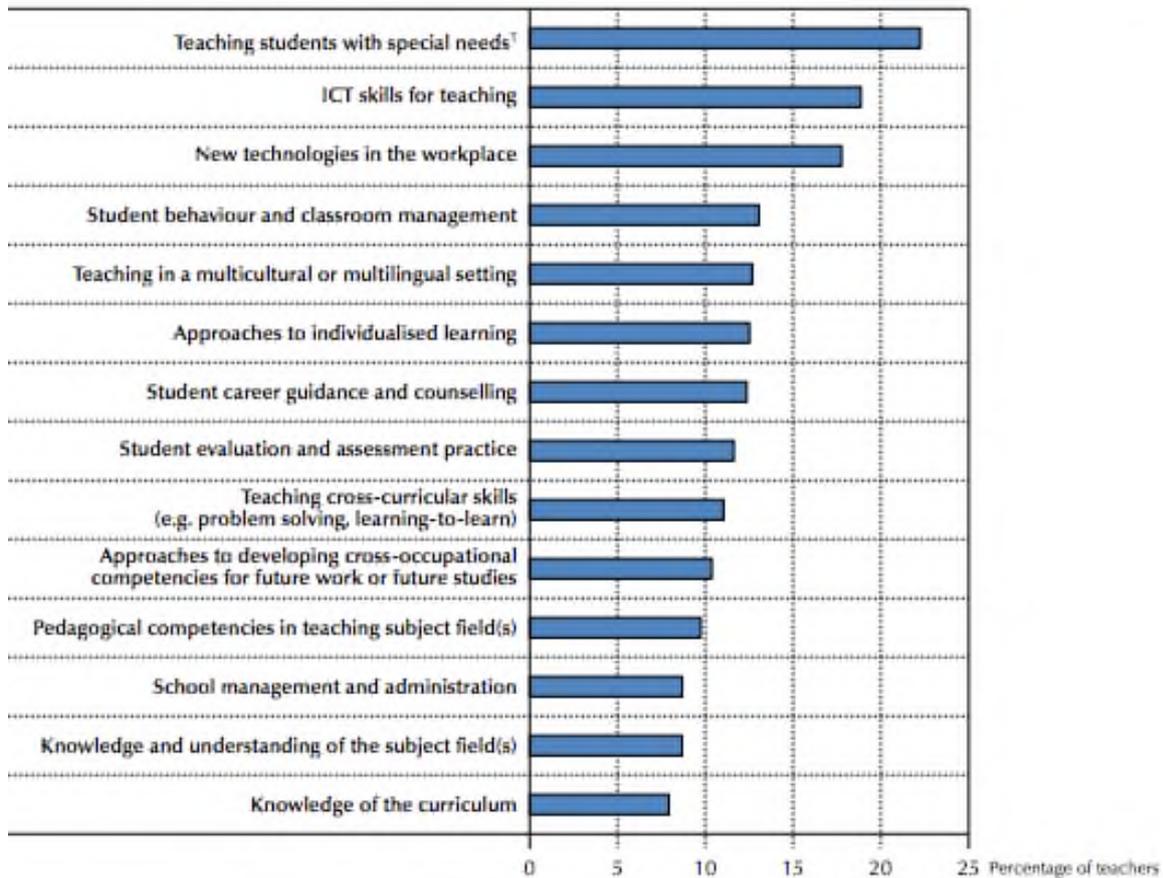


Figure 1 Teachers' needs for professional development (Source: TALIS, 2013)

In Al-Hudawi's (2013) study, he mentioned that:

“Value-based education aims to enable learners to search for meaning and purpose, so that they engage in purposeful, self-regulatory judgment and are capable of deciding about the merit and worth of any information provided to them; merit in terms of its intrinsic value and worth in terms of its relative value –relative to the individual, familial, social, political, and ethical contexts of everyday life in a multifaceted and increasingly complex world.”

The outcome of the learning process is the student will be transformed with knowledge and practice these values in their everyday life. The values such as sincerity, knowledge, truth, justice and others should be ‘gradually inculcated through compliance, identification and internalization’ (Al-Hudawi, 2013). How the teachers can transform their students with these values? Then the teachers must be a murrabi, that is, a role model and exemplary of adab, which is the correct methodology or pedagogy of transformative value-based education (Al-Hudawi, 2013). The teachers must be trained and developed with suitable program that would enable them to carry these murabbi responsibilities. They must know how to instil faith and convince the students about the existence of Allah SWT, purpose of life and hereafter and duties as a servant of Allah SWT. They these students must be taught to practice the values at all times. The teachers should also deal with the students in an appealing manner, teach with love and caring, motivate and inspire them, so that they will try their best to be good Muslims.

Noornajihan Jaafar *et al.* (2012) had presented of self efficacy as the internal belief that can drive oneself to perform tasks successfully, effectively and efficiently in accordance to the prescribed standards. Those with self efficacy will be more perseverance and passionate when educate their students, despite the difficulties in transforming and molding their students to be excellence in academic and *akhlaq*. Thus these teachers must be equipped with high self efficacy as their duties are becoming more challenging.

5.0 AL-AMIN MURABBI DEVELOPMENT PROGRAM

It is almost 30 years since the formation of Sekolah Rendah Islam Al-Amin. Today Pusat Pendidikan Al-Amin (PPAA) comprises four primary schools and two secondary schools with a total of 2500 students and 220 teachers. Many of the alumni are holding respectable jobs and are actively contributing to the society with the mission 'soleh wa musleh'. The Al-Amin schools are currently amongst the leading private Islamic schools in Malaysia as recognised by the Ministry of Education with the award of the SKIPS (Private Educational Institution Quality Standard) Excellent Certification.

To ensure PPAA can produce the 'soleh wa musleh' students, recruiting qualified and committed teachers for the implementation of the educational function is of high importance. Thus, from the first step of selecting teachers, the following criteria are used (Mohd Hasni bin Mohamed, 2010):

- i. Able to recite the Quran and teach Quran to the students
All teachers in the school will have to teach a quranic groups during the Quran class. This responsibility is not entrusted to the religious teachers only. Quranic courses are also conducted for the teachers to upgrade their ability in the Quran and thus making them good Quranic instructors.
- ii. Strong basic Islamic knowledge/background.
Strong Islamic knowledge is very important as it enable teachers to teach across the curriculum, implementing or injecting the Islamic reflections in whatever subject they are teaching, including Chemistry or Mathematics or English etc, not just the Islamic subject. This is a major difference between PPAA teachers and other school teachers.
- iii. Willing to upgrade themselves
The teachers are willing to attend induction programs, upgrading courses academically and Islamically. As an Islamic school, the teachers must also be seen as Islamic, in attire and *akhlaq*. The school through the Tarbiyah Committee will organize tarbiyah activities to upgrade the staff. Teachers teaching in PPAA not only upgrade themselves in the teaching of their academic subjects but also Islamically through the various Islamic programs organized by the school.
- iv. Committed to be involved in the dakwah activities of the school.
Dakwah activities for students will be organized by the teachers and students, e.g usrah, tamrin, qiyamullail, ikhtikaf during the end of Ramadhan, and newsletters. Teachers have to actively guide the students in their activities.
- v. Honest with students, appreciate them, love and care for them.
- vi. Able to communicate with parents.
Communication with the parent is very important. The parents will have to play their roles and help the school by enhancing the good qualities of their children and also prohibiting the bad qualities.
- vii. Active and contributive member of the Al-Amin team
Teachers must remember that they have a great task to implement and they need to work as a team and help each other to achieve the desired goals of the school.
- viii. Passion and love teaching.

PPAA has created induction, in service and continuous professional development program for their teachers so that they will acquire the murabbi characteristics. The teachers are needed to fulfill 60

hours of development program organised by PPAA. The Al-Amin Murabbi Development Program consists of three (3) main components; a) *Tarbiyah*, b) Knowledge and c) Skill.

a. *Tarbiyah* - this program is aimed for the Islamic worldview (fikrah) development, character building and sense of responsibility in doing dakwah. The murabbi program consists of three modules:

- i) Module 1: The objective of this module to develop teachers to have admirable qualities and characteristics of the fundamentals of Islam and unpolluted with shameful acts.
- ii) Module 2: The objective of this module is to develop teachers to have the islamic fikrah, taking care to spread and concerned the issues of Muslims and learn some basic of dakwah.
- iii) Module 3: this is the final module for a murabbi which aims to develop teachers whom will hold to the *amal jama'i*, subscribe to the importance of being in *jamaah* for the sake of Islam and always adhere to the characteristics of good *akhlaq*.

There are various activities used to conduct the modules, such as the following:

- a) *Usrah/halaqah*: it is compulsory for the teachers to have their own *usrah/halaqah*. For every *usrah/halaqah* there will be 1 or 2 *naqib/naqibah* (head of each *usrah*) that will be conducting the *usrah/halaqah* given. The *naqib/ah* are among the teachers that had been specially selected by the *Tarbiyah* committees. *Usrah/halaqah* normally run once a week.
- b) *Daurah*: This activity is to support the teachers with the Islamic knowledge for practical action. The teacher will be assigned with special talks based on their needs, problems, and contemporary Islamic issues. *Daurah* is divided into two; which are (i) *Daurah Am* (General *Daurah*) that is organized once a month and (ii) *Daurah Khas* (Special *Daurah*) that is organized 4 or 5 times yearly.
- c) *Qiyamullail*: This activity is to train the teachers to practice the *Sunnah* and to enrich their lives with Ibadah. Normally, it is an overnight program such as *Tamrin*, *Mukhayam*, and Special *Usrah* Program.
- d) *Mukhayam*: It is organized to expose the teacher to participate outdoor activities. The objective is to achieve *ukhuwah*, *ta'ah*, and *amal jama'i* among teachers. *Mukhayam* is organized once a year. *Mukhayam* is conducted as outdoor activities integrated with *fikrah* development (talk, forum etc.). The duration taken for *mukhayam* is normally 2 or 3 days.
- e) *Rehlah*: it is a flexible activity in which the program is decided by each *naqib/naqibah* to set the *rehlah* between their own *usrah/halaqah* members. They may combine with other *usrah/halaqah* and it is normally done during school holidays, weekend and etc.
- f) *Tamrin*: It is organized once a year for all teachers. *Tamrin* is a 2-day program to achieve the objective of obtaining deep understanding on Islamic and *Tarbiyah* concept.
- g) *I'tikaf*: This program is organized during Ramadhan. The school has allocated specific days to run this program for the students and teachers.

This program will provide the teachers with knowledge on faith and the need to practice this knowledge, then only they will become the role model and exemplar of adab.

b. Knowledge

In upgrading and improving the teachers knowledge on teaching and learning process, curriculum development, pedagogy, and class management, etc, short courses are organised during weekend and school holidays. The school will be consulted for their training needs and Al-Amin EduOasis is responsible to organise the courses.

c. Skill/Competency

The teachers are also exposed to the skills that will improve the teachers profession. Among important skills are ICT applications for teaching and learning. The teachers are encouraged to apply their knowledge and skill in adopting ICT in the classroom.

6.0 CONCLUSION

There is no doubt about the importance of development program for teachers or educators. PPAA as private entity never set aside the needs of teacher development. Strong emphasis on murabbi development program is continuously supported by the board of governors and parents to ensure the teachers as murabbi can realized the vision and mission of the Al-Amin schools. Future works will include more empirical study on the needs of murabbi development program to further enhance the quality of the teachers and improve the teaching practice, so that the students will be transformed with values as enjoined in Islam.

REFERENCES

- Al-Hudawi, Shafeeq Hussain Vazhathodi. 2013. Transformative Value-Based Education: Characterizing the Curriculum and Pedagogy of Teacher Training. International Conference on Teacher Education in the Muslim World 2013, November 2013. Available at SSRN: <http://ssrn.com/abstract=2368650>
- Halimah Harun. 2006. Minat, Motivasi dan Kemahiran Mengajar Guru Pelatih. *Jurnal Pendidikan*. 31:83-96. Available at: [http://www.ukm.my/jurfpemd/journal/vol%2031%202006/Jpendidikan31\[isukhas\]/Jpend31\[06\].pdf](http://www.ukm.my/jurfpemd/journal/vol%2031%202006/Jpendidikan31[isukhas]/Jpend31[06].pdf). Accessed on 15 July 2014.
- Malaysia Education Blueprint 2013-2025. 2012. Available at: <http://www.moe.gov.my/userfiles/file/PPP/Preliminary-Blueprint-Eng.pdf>. Accessed on 15 July 2014.
- Mohd Hasni bin Mohamed. 2010. Celebrating 25 Years of Holistic Education: The Al Amin Experience. 1st AMRON International Conference, ASEAN Islamic Education: Change from within through Education; (<http://amron.wu.ac.th/seminars>) on 2-3 October 2010 at Walailak University, Nakhon Si Thammarat, Thailand
- Muhammad Nurfahmi Mohamed, Mohamed Yusof, Rohana Hamzah and Amirudin Udin (2011). Kemantapan Penghayatan Guru Terhadap Falsafah Pendidikan Kebangsaan Asas Membangunkan Guru Cemerlang. *Journal of Edupres*. 1: 271-278.
- Noornajihan Jaafar *et al.* 2012. The Importance of Self-Efficacy: A Need for Islamic Teachers as Murabbi. *Procedia - Social and Behavioral Sciences*, International Conference on Education & Educational Psychology (ICEEPSY 2012). 69: 359-366.
- Siti Zafirah Mohd Ilias. 2008. Faktor-faktor yang Mempengaruhi Pemilihan Profesion Perguruan di Kalangan Pelajar Tahun 4 Perdana Jabatan Pendidikan Teknikal dan Kejuruteraan, Fakulti Pendidikan, UTM. Tesis Sarjana Muda. Universiti Teknologi Malaysia.
- TALIS. 2008. Creating Effective Teaching and Learning Environments: First Results from TALIS. OECD 2009. Available: <http://www.oecd.org/education/school/43023606.pdf>. Accessed on 15 July 2014.
- TALIS. 2013. TALIS 2013 Results An International Perspective on Teaching and Learning. OECD 2014. Available at http://www.istruzione.it/allegati/2014/OCSE_TALIS_Rapporto_Internazionale_EN.pdf. Accessed on 15 July 2014.

ISLAMIC EDUCATION CURRICULUM AND ITS HISTORICAL EVOLUTION IN NIGERIA: PROSPECTS AND CHALLENGES

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ABSTRACT

This paper gives an overview on the development of Islamic Education Curriculum in Nigeria. The paper examines the developmental structure of Islamic Education curriculum by taking cognizance in to three epochs; pre-colonial, during colonial and post-colonial. However, inhibitive factors affecting efficacious development of the curriculum are chronicled especially in this era which is full of reformation and dynamism. Finally, possible solutions are offered on best to move Islamic Education Curriculum forward in Nigeria.

Keywords: Curriculum, Islamic Education, development

1.0 INTRODUCTION

There were trade routes linking North Africa and the Bilad al-Sudān (Land of the blacks) as it was known, which is the presently known as West African sub-region. Thus, Islam reached Nigeria (as one of the West African countries) through the eastern Trans-saharah trade route which linked Tripoli and Kanem through Fezzan and Bilma. The Muslim merchants therefore are said to have been the brain behind this gigantic Islamic project of propagation. Other minor trade routes existed between the Kanem and other communities surrounding it. It could be suggested that probably through these routes, Islam spread into other parts of Nigeria. By the 15th century, most of the Northern part of the country has witnessed the penetration of Islam and its educational system. However, it is very important to note that Islam and its educational curriculum were introduced to Nigeria not by military conquests but peacefully through the influence of traders across the trans-saharah trade routes.

2.0 CONCEPT OF ISLAMIC EDUCATION

Many attempts have been made by Muslim Scholars [1&2] define Islamic Education. In reference to this article, al-Zayidi's definition is chosen to serve the purpose of this paper. Alzayidi (nd) states that the term "Islamic Education" could referred into a number of things: It can be viewed as Islamic Religious Education in which the person studies religious knowledge, starting with the Qur'an and matters of worship such as purification, prayer, Zakat, fasting and Hajj. He may also learn other matters like the etiquettes of eating and drinking, Islamic dress, family relations, business transactions, criminal law, and inheritance. Al-Zayidi also elaborates farther stating that the term 'Islamic Education' can have a broader meaning, embracing knowledge in general in a framework where the teacher, the student, the school, and the curriculum are comply with Islamic values, and teachings. In this nature, student learns whatever he needs to learn of reading, mathematics and the various sciences. The curriculum will include a generous amount of coursework devoted to Islamic studies. Additionally, the syllabus would not include any texts that contradict Islamic beliefs and teachings.

3.0 CURRICULUM OF ISLAMIC EDUCATION BEFORE COLONIAL GOVERNMENT

The curriculum of Islamic Education in Nigeria appeared between 7th to 9th centuries as Muslims migrated from North Africa to West Africa. However, the curriculum was not documented; it was adopted from Tumbukto system of Islamic Education. Thus, at that time there were two types of Islamic schools in Nigeria. (i) Traditional Islamic Schools (Makarantun Allo) and (ii) Ilm schools (Makarantun Zaure).

3.1 Traditional Qur'an school (Makarantar Allo)

This school is considered as primary level of Islamic Education. The emphasis in this school is based on teaching Qur'an only. Children are admitted to this at 3 to 4 years old as they are expected to start learning Qur'an recitation. At this stage pupils learn the shorter chapters of the Qur'an by repetition and rote. The method of instruction at this stage is teacher centered in which teacher recites to his pupils verse to be learnt several times. Then pupils repeat the

verses after the teacher. Then the pupil or group of pupils is allowed to repeat the verse by themselves until they memorized them.

The next stage is learning Arabic text at which a pupil learns the alphabets of Arabic language. Pupil is expected to recognize Arabic letters which were written by the teacher on the student's wooden slate (Allo). The teacher reads the alphabet carefully to the student by showing him each letter, thereafter; the student reads them several times. According to [3] this stage lasts between six and thirty six weeks depending on the learner's ability. When the teacher is satisfied that the pupil has attained the standard skill of reading Arabic characters he introduces him to the formation of syllables with vowels. (Fatha, Kasra, Ruf'ah and Skuun). This stage lasts for six to eighteen months, depending on the learners' intellectual capability [3].

The final stage is learning longer chapters of the Qur'an, at this stage student writes Qur'an chapters/ verses (on a wooden slate) he expects to learn prior to school hours. During the school hours student comes to teacher to learn what he had written on the wooden slate. At this juncture, teacher recites the verses for student two or three times depending on the student's level of mastery, then the student recite the verses after the teacher once or twice this is also depends on the student's intellectual capability in one hand and the number of students waiting to learn before the teacher on the other hand. However, student will not exceed to next chapter/ verses unless the teacher is satisfied that the student mastered the previous chapters/verses very well. This continues till student complete the Holy Qur'an. this marks the end of primary level of Islamic education.

Moreover, [3] expressed that when a pupil passed primary level of Islamic Education (that student can recite and write the whole qur'an) his family organizes *walimat* for him. During the *walimat* day the student appears with his decorated slate on his hand, visiting the houses of his relatives. However, the student's relatives use to gather at the foyer of the Qur'an schools waiting for him to recite the first five verses of *surat Baqara* in front of his teacher, once he finished the recitation his relatives welcome him and rejoice with him. In many circumstances, gifts have been given to him. More interestingly, on the *walimat* day, a ram or cow bought by the student's parent is slaughtered at the teacher's house. Half of the slaughtered animal meat is kept for the teacher.

The school week starts on Saturday and ends on Wednesday. There is no bell to alert the pupil to school; no is there a mode of dress. However, in many parts of Nigeria there are three sessions of the Qur'an school in a day: morning afternoon and evening. Moring session begins from 8:00 A.M to 10; 00 A.M. Afternoon commences from 2:00 P.M to 4:00 P.M and evening starts from 4:00 P.M to 6:00 P.M. [3]

3.1.1 Curriculum of Traditional Qur'an School

Based on the above description we can itemize the curriculum of traditional Qur'an school as follow:

- i) Qur'an is the only teaching subject in the school
- ii) Pupils are admitted to the school at the age of 3-4 years
- iii) The first stage of learning is memorizing some short chapters of Qur'an (e.g from *Surat Fatiha* to *Surat Fil*).
- iv) The next stage is learning Arabic text of Qur'an through writing them on the pupil's wooden slate by the teacher, thereafter, the pupil start to write by himself.

- v) Completion of Qur'an recitation in front of *Malam* is considered as graduation level of the pupil.
- vi) Walima is organized by the pupil's parent on the day of Qur'an graduation ceremony.
- vii) The school week starts on Saturday and ends on Wednesday.
- viii) The school has three seasons morning, afternoon and evening season.
- ix) The school goes to break in the 9th month of Hijri Calendar (Ramadan), Eid Fitr and Adha, and Maulud day.
- x) The method of instruction is "rote learning" which is strictly traditional.

3.2 Ilm Schools:

This type of school is for older students who graduated from the Qur'anic schools and who want to further their Islamic Education. The students study under one or more *Malams* depending on their levels, types and depth of specialization [3]. Some time students used to learn from *malam* individually in one hand and collectively on the other hand. Subjects taught at this type of school include: Qur'an commentary (tafseer) tradition and history of Prophet Muhammad peace be upon him (Hadith and Sira) principles and rules of Islamic jurisprudence (fiqh and usul fiqh) theology (ilm tauheed) mysticism (Tasawwuf) medicine (Tibb) and history (Tarikh) Arabic Grammar (Nahwu) morphology of verbs (Sarf) etc.

In this respect [3] regarded the above subjects as different branches of knowledge and it is not every teacher attained perfect of each of the above branches of knowledge. Thus, at this stage students of the Qur'an schools are instructed by more than one Malam. It is also at this stage students decide in what area he wishes to specialize.

3.2.1 Curriculum of Ilm School

- i) It is only for older students who graduated from traditional Qur'an school
- ii) Tafseer, hadith, Fiqhu, Ilm Tauheed, Tasawwuf, Sira, Nahwu, Sarfu, Balaga, Lugha etc are the teaching subjects at the school.
- iii) Students learn from different teachers, based on the students' interest and their area of specialization.
- iv) For some circumstances students are grouped based on their age and intellectual capability.
- v) The method of instruction is individualistic in most circumstances.

3.3 Limitations of Both Traditional Qur'an School and Ilmi Schools

- i) The curriculum is not documented
- ii) The curriculum is static not dynamic
- iii) Un-prescribed date/period of graduation.
- iv) There is no terminal or promotional exam.
- v) Students' sitting arrangement is random
- vi) Certificate is not awarded for the graduand
- vii) No physical facility such as building.

3.4 The Fund of the above two schools

These two types of schools represent old curriculum of Islamic education in Nigeria which was strictly traditional and completely private with no formal funding. The *Malamai*

(ulama'a) took care of the educational and spiritual development of children on behalf of the society. The society and parents in turn took care of the Malamai through fees (every Wednesday) zakat and Sadaqat. However, the society took care of the Almajirai by giving them leftover food, and offering them opportunity to work as house helpers [4].

4.0 ISLAMIC EDUCATION CURRICULUM DURING COLONIAL GOVERNMENT

When Western Education came to Nigeria with colonization, the development of Islamic Education was completely ignored by British colony. Even the Ajami system (is a system of writing local language with Arabic scripts) which existed as official means of communications between the emirs of the states, Ulama'a and other people, was not recognized officially. This marked the commencement of a slow death process of Islamic Education [5].

It is clear that British colony introduced formal system of education to Nigeria, and is perceived as a welcoming development in southern part of the country. While in the northern part of Nigerian was perceived as way for propagating Christianity to the region with dominant of Muslim Ummah.

Thus, British colony reluctantly added Islamic subjects in their educational system in order to pursue the parents to enroll their children to school. In such case, Islamic subjects were taught at the last period in the schools while students are tired. Moreover, Islamic studies teachers were appointed as discipline masters (who administer corporal punishment to students who misbehave) of the schools. Subsequently, students could easily hate them and the subjects they teach.

Despite the initial resistance, it became necessary for Muslims to enroll their children in to Western Education program or lose the opportunity to participate in running the affairs of the country. This led to the establishment of the new Islamic institutions in the 1950- 1960c by private organizations. They adopted all features of formal school system that were lacked in Qur'an Ilm schools.

5.0 ISLAMIC EDUCATION CURRICULUM FROM INDEPENDENCE TO DATE

Nigeria became an independent Nation on the 1st October, 1960 from British. But, due to multi religious and cultural nature of the country, syllabi for Islamic and Christian Education were drawn up by State and Federal Ministries of Education since 1950's. The syllabi prepared students for the subject in the West African School Certificate Examinations. The medium of instruction is English language.

In the case of Islamic Education there were no textbooks in English until about 1968 – 1970. The teachers, who were mostly traditional *Mallams* (scholars) who passed through Arabic Teachers Colleges, would use Arabic books, from which they would translate to the students [5].

With the production of books in English written to cover the syllabus, Islamic Religious Knowledge became much easier to teach. The Government-run post-secondary Advanced

Teachers Colleges and Colleges of Education ran three year courses in Islamic Studies (as well as Christian Religious Knowledge) and the subject became widely available in the universities. Gradually the Arabic speaking *Mallams* were replaced at secondary level by English-speaking young teachers who were the products of the mainstream educational system [5].

She also expressed that the way of teaching Islamic Education in Nigeria is expected to be confessional that is, students are taught how to practice their religion as well as being taught about their religion. Muslim students are therefore expected to memorize portions of the Qur'an and Hadith and their meanings, to know how to perform the duties of prayer, fasting, zakat and hajj, to evaluate the evidence for the authenticity of the Qur'an and so on, as well as learning essential historical information.

On the other hands, there are many secondary schools which purposely initiated to teach Islamic Education and Arabic Language especially in the Northern Part of Nigeria. The schools are sponsored by Muslim State Governments. At these schools teachers teach Islamic Education in advanced. Teaching subjects of the schools include : Qur'an commentary (Tafseer) tradition and history of Prophet Muhammad peace be upon him (Hadith and Sira) principles and rules of Islamic jurisprudence (Fiqh and Usul Fiqh) theology (Ilm Tauheed) mysticism (Tasawwuf) medicine (Tibb) and history (Tarikh) Arabic Grammar (Nahwu) morphology of verbs (Sarf) etc.

The medium of instruction at these schools is Arabic. Therefore, the schools have special final secondary exam named Higher Islamic Secondary School Examination under the supervision of National Board of Arabic and Islamic Studies (NBAIS) Ahmadu Bello University, Zaria. Some of these schools are:

- i) School for Higher Islamic Studies (Aliya)
- ii) School for Arabic studies (S.A.S)
- iii) Government Arabic College (G.A.C)
- iv) Girls Arabic Secondary School, Gorandutse.

However, the inception of the ideology "Islamization of Knowledge or Education" in the late 1970th serves as other facet for restructuring Islamic education curriculum in Muslim countries such as Malaysia and Nigeria. In respect to the latter, curriculum of primary and secondary school becomes integrated (combining Islamic and modern education).

In order to produce versatile Muslim students in Nigeria, Four Islamic universities were established by Islamic bodies and Muslim philanthropists. The universities are

- i) Katsina University, Katsina.
- ii) Al- Hikma University Ilorin, Kwara state.
- iii) Cresence University, Abekuta
- iv) Founting University, Oshogbo.

Despite the concerted effort to bring Islamic education at different level of education, still some parents are not well satisfied on the way their children learn Islamic Education in those schools. This gave rise to the development of Islamiyya schools or Madrasa in different sessions: morning, evening, and night depending on the type of public school a child attends. Students of any level of formal educations attend Islamiyya School or Madrasa.

Some of these Islamiyya schools have structured environments with Islamic images (Arabic calligraphy and mosques). School administrators actively foster Islamic identity and awareness among students and teachers, not only in the classroom but also in the all school activities like weekly lectures. Islamic congregational prayer in particular Asr prayer is

regularly observed in the school mosque. Islamic dress, particularly for female students is employed as virtually powerful way of fostering Islamic identity and awareness in these schools. However, it is important to note that old system of Islamic education (Qur'an Traditional Schools and Ilm Schools) still exist in some part of Nigeria [4].

6.0 FACTORS MILITATING AGAINST DEVELOPMENT OF ISLAMIC EDUCATION CURRICULUM IN

There are many factors that militate against successful development of Islamic Education Curriculum in Nigeria which are emulated from Muslim community. [4] elaborated the factors as follow:

- i) **Government factor:** the federal government of Nigeria marginalizes the role of Islamic education in developing the country. Therefore, the government does not adequately invest in the development of Islamic Education. As a result of that, majority of Islamic education teachers are not professional, insufficient text books, lack of instructional materials, and lack of students' motivation. Subsequently, Islamic education becomes optional course to study even in Islamic states of Nigeria. However, the graduates of Islamic schools are given less priority by the government compared to other students whose specialization is sciences, or Technology. Thus, the optimum future of Islamic education students is either teaching or leading prayer in the mosque and occasions.
- ii) **Muslim proprietors' factors:** some of the Muslim proprietors of Islamic schools are dishonest and trust worthless, in the sense that they are not sincere in teaching. It is apparent that some of the proprietors go to some philanthropists as well as Arab countries' government to seek for financial assistance for administrating the schools. Unfortunately, they divert such assistance they earned to their personal usage. Some also go to ridiculous level of selling the valuable Islamic books given to them for the development of Islamic Education.
- iii) **Muslim parents' factor:** Muslim parents of Islamic schools have their own share of the problem. The disdainful manner in which students attend Islamic school does more harm than any other. An average Nigerian Muslim parent spends heavily in western education for their children. When he comes to Islamic education he perceives the knowledge as secondary level. Therefore, he does not care to send his children to Islamic Schools. Teacher of such school suffer a lot in collecting monthly school fee from parent which is less than \$ 2 in some of the Islamic schools.
- iv) **Community factor:** most of Nigerian communities do not see anything beneficial in the Islamic system of Education other than religious activities. There is an impression that anybody undertaking Islamic education can only be a school teacher. The advent of *Boko Haram* ideology (Western Education is Forbidden) member insurgents in North Eastern part of Nigeria which bring another dimension of Islamic education in Nigeria, in the sense that Muslim scholars as well as their students are perceived as extremists in the society.

7.0 ISLAMIC EDUCATION CURRICULUM IN NIGERIA: WAY FORWARD

If it is undoubted that the Western system of education has come to stay in Nigeria and has even, to say the least, westernized most of our life style, there is the urgent need to find ways of moving Islamic education forward in order to guarantee its future. [6] made the followings suggestions that could be taking into consideration in order to mitigate the above obstacles:

- i) One aspect that must be considered, and very urgently too, is Muslim state government should integrate Western education with that of the Islamic system. This integration, which should be in the area of learning experiences, must be done with a view to producing "double-baked" citizens. That is, students who would be versatile in both Islamic and Western education without any jeopardy to the former. Giving the present scenario in the country, this, to my mind, remains the only viable approach to re-launch Islamic education back to prominence. Some subject should be introduced into the Islamic schools and taught in English language (such as Mathematics, economics, integrated science, Geography and English Language itself). In the light of the foregoing, it is strongly suggested that a curriculum conference be summoned to assemble the representatives of all stakeholders in Islamic education. The conference would fashion out curricular for the different levels of *Islamiyyah* schools. To have a rewarding conference, mass enlightenment should be mounted to educate, especially the proprietors of *Islamiyyah* schools, on the benefits of such a gathering.
- ii) Another area that needs attention is staff training and retraining. The appalling situation whereby teachers in our *Islamiyya* schools are not exposed to modern trends in pedagogy should be redressed. Some of these teachers just pick up the chalk, in most cases, after graduating from the same school where they are teaching. There should be a way of giving teachers in our *Islamiyyah* schools basic education courses. In the interim, induction/refresher courses, workshop and seminar, could be organized to take care of this important aspect of the system Government should be involved in certification. This will put an end derogatory valuation of certificates from *Islamiyya* schools. It is depressing that, in some organizations, holders of certificates from *Islamiyya* institutions are placed on meager salary grade levels as low as 02 or 03. Our ministries of education should take over the certification as a follow-up to the harmonization of the curricula.
- iii) Co-curricular activities such as Club and society meetings should be encouraged in the *islamiyyah* schools. There should be football team as well other sporting activities. These activities help in no small measure to develop a child cognitively, affectively physically. Besides, they also give him the Islamic alternatives to what he is exposed to outside the school environment.

8.0 CONCLUSION

This paper gives an overview of the development of Islamic education curriculum in Nigeria in three historical era; pre-colonial, during colonial and post-colonial. Problems and prospects of Islamic education curriculum are also discussed in the paper.

REFERENCES

- [1] Qutub, S. (1977). *Islam the Religion of the Future*. Bairut: the Holy Qur'an publishing house.
- [2] Attas, M. N. (1993). *Islam and secularism*. ISTAC, Kuala Lumpur
- [3] Fafunwa, A. B. (1974). *History of education in Nigeria*. London: George Allan Federal.
- [4] Ajidagba, U. A. (no date). *An overview of Islamic Education system in Nigeria*. University of Ilorin, Nigeria.
- [5] Lemu, A. (2002). *Religious Education in Nigeria: a case study*. Oslo Lagos, Nigeria.

- [6] Olatubosun, A. A & Tanimowo, A. S. (2013). Islamic studies in Nigeria: problems and prospects. *International Journal of Humanities and Social Sciences*, (3), 179-186.
- [7] Moulton, J. (2008). *Madrassa Education: what Creative Association has Learned*. P 24
- [8] <http://en.islamtoday.net/quesshow-25-1524.htm>

INTEGRATED CURRICULUM: SUCCESS AND CHALLENGES REVIEW OF THE EXPERIENCE OF THE INTERNATIONAL ISLAMIC SCHOOL MALAYSIA (IISM)

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ABSTRACT

Education is one of the most influential social systems that man was able to create. In most western societies, education turned into a driving force that is contributing to nation building. Education in Islam however, has a much wider spectrum. Every positive action a Muslim does or seeks, including seeking knowledge, is regarded as an act of worship (*'ibadah*), which brings God's blessing and deserves reward. The Islamic educational experience witnessed several periods of tide and ebb. It reached its peak during the medieval ages, but an extreme tide of regression in Islamic intellectualism and intelligentsia, and ultimately Muslims ceased to produce any kind of useful knowledge. The task shouldered by Muslim educators, academics and activists to annihilate the negative effects of decades of foreign intellectual domination, rejuvenating Islamic intellectualism, and developing a valid model of Islamic education, is a daunting task, particularly in a Muslim world which still suffers from several forms of decadence and deterioration. One major contemporary challenge that needs to be addressed seriously and found effective remedies to is the issue of dualism in most of the educational systems in the Muslim countries. It is manifested in a form of religious versus secular curriculum. A more pragmatic approach in dealing with the issue is required, in order to create a balance between the acquisition of revealed and western sciences in one educational package. This approach gained immediate appeal, and made a positive impression among middle class Muslim intellectuals in particular. Seeing it as a good business opportunity, many businessmen –especially in developing Muslim countries– ventured into this project by establishing several educational institutions and projects based on the concept of integrated curriculum. Through the analysis of curriculum, teachers' background, students' population background and other official documents, this paper tries to review the idea of school integrated curriculum through the experience of one leading educational institution in Malaysia, which is the International Islamic School Malaysia (IISM). The school which started its business in 1998 was the result of several years of planning and projection by the International Islamic University Malaysia. After reaching 16 years of operation, and with many phases of success and disappointments, the researchers think that it is a ripe time to conduct this review.

Keywords: Curriculum, Integrated, International Islamic School (IISM)

1.0 INTRODUCTION

Education is one of the most important aspects of the human life, perhaps the most influential social system that man was able to create. The future of any nation rests on its educational system. In most western societies, education turned into a driving force that contributed and is still contributing to nation building, by providing individuals with necessary skills and knowledge, and preparing them to enter job markets, compete for better opportunities, and meet the demands of life in the modern age. Education in Islam however, has a much wider spectrum. Every positive action a Muslim does or seeks, including seeking knowledge, is regarded as an act of worship (*ibadah*), which brings God's blessing and deserves reward. Another dimension of education in Islam is the fact that it is considered as a mean to protect the faith and its tenets, as well as to preserve the tradition and the Islamic way of life. The launching of Islamic education in a very early stage, simultaneously with efforts of the Islamic call (*da'wah*) -which, in its essence, seeks to spread the principles of faith and gain Allah's favors by living according to his commands in this world and preparing for the day after- such simultaneousness symbolizes the importance of education, even for the survival of the faith itself.

The Islamic educational experience witnessed several periods of tide and ebb. It reached its peak during the medieval ages, with outstanding scientific and intellectual accomplishments, and leading roles which rendered the Islamic orient as one major center for knowledge and innovation. However, new conditions -primarily political, and intellectual- which began to accumulate in the tenth century BC, led to an extreme tide of regression in Islamic intellectualism and intelligentsia, and ultimately Muslims ceased to produce any kind of useful knowledge. Meanwhile, Europeans were shaking off the dust of decades of clergy dogmatic dominance, and engaged in a revolutionary intensive rational, philosophical, educational, scientific, industrial and pragmatic exploits, which ultimately revitalized, transformed and reinstated them to their leading role. The new order was not all humane, western European powers had a huge desire for expansion and an endless appetite for wealth. Spanish, Portuguese, Dutch, and later, British and French, embarked in a huge wave of military and economic colonial offensive against weak dominions in Asia, Africa, and South America. The Muslim world was not spared, and by the 18th, 19th and 20th centuries practically most of it was colonized.

It remains to say that incapacitating Muslims' role in the making of civilization, and relegating their influence was not solely because of the western domination, the domestic intellectual malaise and internal educational decay among Muslims was a prime culprit which allowed such a situation to exist.

The task shouldered by Muslim educators, academics and activists to annihilate the negative effects of decades of foreign intellectual domination, rejuvenating Islamic intellectualism, and developing a valid model of Islamic education, is a daunting task, particularly in a Muslim world which still suffers from several forms of decadence and deterioration.

One major contemporary challenge that needs to be addressed seriously and found effective remedies to is the issue of dualism in most of the educational systems in the Muslim countries. It is manifested in a form of religious versus secular curriculum. There were many conflicting views among scholars, decision makers and even parents about the best solution to tackle this issue. Some of them, driven by philosophical and economic incentives, favored the western secular system. According to them, the western secular model of education is

modern, progressive and highly demanded in the job markets. Others, mostly driven by religious and national motives, preferred the traditional Islamic education model. For them, the Islamic system has helped and will continue to help preserving the Islamic identity of the new generation. Between these two conflicting views, a third opinion emerged. It rejects the equation of adopting one model on the expense of the other. It claims moderation and calls for a more pragmatic approach in dealing with the issue by creating a balance between the acquisition of revealed and western sciences in one educational package; in other words, it adopts the approach of teaching an integrated curriculum. This approach gained immediate appeal, and made a positive impression among middle class Muslim intellectuals in particular. Seeing it as a good business opportunity, many businessmen –especially in developing Muslim countries- ventured into this project by establishing several educational institutions and projects based on the concept of integrated curriculum.

Through the analysis of curriculum, teachers' background, students' population background and other official documents, this paper tries to review the idea of school integrated curriculum through the experience of one leading educational institution in Malaysia, which is the International Islamic School Malaysia (IISM). The school which started its business in 1998 was the result of several years of planning and projection by the International Islamic University Malaysia. After reaching 16 years of operation, and with many phases of success and disappointments, the researchers think that it is a ripe time to conduct this review.

2.0 EDUCATION IN ISLAM AND THE WEST: AN OVERVIEW

It is probably important to revisit the concept of education, from both Islamic and western perspectives, before discussing the issue of integrated curriculum. The philosophy of Islamic education is an integral part of the comprehensive philosophy of Islam.

Man according to Islam is composed of soul and body... he is at once spirit and matter... man possesses spiritual and rational organs of cognition such as the heart (*qalb*) and the intellect (*'aql*) and faculties relating to physical, intellectual and spiritual vision, experience and consciousness. His most important gift is knowledge which pertains to spiritual as well as intelligible and tangible realities. (Al-Attas 1979: 157)

In Islam education is ought to prepare good, dutiful and wholesome individuals who are physically, mentally and spiritually balanced. The framework in which these individuals are prepared is clear and simple: it begins with the Muslim individual, then the Muslim community and ends up with the entire humanity. From another dimension, education is principally a process which strives to prepare man to play his role in this life. Such a role will eventually qualify him for success in the hereafter. The pursuer of knowledge accordingly in his quest strives for the good will of Allah, the future life, the removal of ignorance, the conservation of the religion, and ultimately the survival of Islam. Education in Islam thus strives to produce men who have faith as well as knowledge, the one sustaining the other. Islam does not think that the pursuit of knowledge by its self without reference to the spiritual goal that man must try to attain can do humanity much good. Knowledge divorced from faith is not only partial; it can even be described as a kind of new ignorance. (Hussain & Ashraf 1979)

Education in Islam is a two-fold process, intellectual knowledge (*'aqliyya* or *hikmiyya*) and the so-called spiritual knowledge. The first is acquired through the application of reason and logic, and the latter through the divine revelation. Islamic education regarded both as

legitimate. However, acquiring knowledge in Islam is not meant to be an end itself, but only a means to stimulate a more elevated moral and spiritual consciousness leading to faith and righteous action. Islam value prized knowledge and learning. It was made an incumbent assignment upon every Muslim, including the prophet of Islam (pbuh) himself to whom the first inspiration addressed: “Proclaim in the name of thy Lord and cherisher, who created...” Al-‘Alaq: 6/1. Although, he himself was an illiterate, Prophet Mohammad (pbuh) was the first Muslim educator and an indefatigable promoter of education.

However, education in the west is considered as a preliminary preparation for the duties of life. Beside building the national political consciousness and consolidating national unity as two major aspects of nation building, education constitutes the main source which supplies the labor market with skilled and viable work-force. By transmitting the necessary productive skills to the children as they grew up, along with the cultural content that is given in parallel to those skills is exactly what every nation would seek from educating the younger generation. What we should aim at producing, is men who possess both, culture and expert knowledge in some special direction. Their expert knowledge will give them the ground to start from, and their culture will lead them as deep as philosophy, and as high as art. (Whitehead, 1970)

Thus, the formation of a balanced individual in both culture and skills is a prioritized general goal among all nations, whether industrialized or developing, democratic or totalitarian, because a wide variety of functional considerations –economic, cultural, political, aesthetic, and moral guides the formation of educational goals. Education is variously concerned with producing literacy, providing knowledge and skills’ requisite for assuming a useful occupational role, maintaining a foundation for artistic and cultural cultivation that will sustain and renew elements of refinement in society, and socializing people in a rule governed, law-abiding, bureaucratically run community. (Rao & Reddy, 1992)

In the Muslim world however, the debate is still on how to revive our Islamic traditions of learning, and develop them to become an alternative model that can compete and ultimately replace the western model of education inherited from the times of direct colonization. In fact, the Muslim countries like the rest of developing nations suffer from deep rooted cultural deficiencies, and acute dependence on the west. Slogans of globalization, open markets, and human rights, made these deficiencies and dependence more visible, and the dominant western culture cemented its position in the east. Hence, Muslim educators and thinkers need to come to terms with such reality and work harder in order to find new educational remedies, which may create some resistance to the already leaned and unbalanced relationship.

3.0 DILEMA OF EDUCATION IN THE MUSLIM WORLD: INTEGRATED CURRICULUM AS AN ALTERNATIVE

Muslims in general live in constant dualism, in terms of their thoughts and convictions. They carry nostalgic feelings towards their religious heritage, and interact with traditional social and religious institutions, such as immediate families, local communities and schools...etc. However, these feelings of empathy are unconsciously mixed up with secular intellectual concepts which are consistently consumed by Muslims through a powerful western influence in politics, economy, culture and media. Facing the facts of real life, reciprocated with such western secular culture’s dominance, the majority of Muslims –including educators- find themselves in favor of the imported western models and styles. The Muslim educators feel

proud when their academic credentials are obtained from western educational institutions, and would certainly not exchange that with any qualification from the east. The norm in the Muslim mind is that the west remains the sole term which identifies success, growth, and everything that is modern, progressive and prosperous. Accordingly, the western educational experience has for a long time and it remains as the best form of learning. At the meantime, the majority of Muslims, individuals and groups are keen to inculcate the norms of faith, Islamic personality and character, and rituals in the minds and hearts of their children. Such legitimate aspiration motivated Muslim reformists and educators to come up with several alternatives that seek to modernize the inherited traditional system of Islamic education - which has long been labeled as backward, unproductive, and most recently breeding places of religious intolerance, to a modern, progressive, and a moderate system of education based on the idea of integration of curriculum – revealed with acquired knowledge- which eliminates conflicts with western educational theory of education and harmonize the two educational experiences in one coherent amalgam.

4.0 INTERNATIONAL ISLAMIC SCHOOL MALAYSIA: HISTORICAL BACKGROUND

In a conference organized by King Abdul Aziz University and the Government of the Kingdom of Saudi Arabia in Makkah from 31 March to 8 April, 1977, leading Muslim educators and thinkers addressed the education crisis in the Muslim world. The problems stemmed from the dual education system inherited from the colonial masters, i.e., the national type system and the religious system (Adebayo, 2007). Among the outcomes of this conference was the call for fundamental educational reform in the Muslim world. The conference proposed a critical review, reform and integration between modern knowledge and Islamic heritage. Hence, recommendations were made to improve the teaching, learning and research of Islamic heritage by establishing Islamic universities; i.e., universities with an integrated curriculum where both modern disciplines and Islamic heritage were taught to provide students in the Muslim countries with a better education, utilizing the epistemological sources in Islam (Amin and Haneef, 2011). As a direct result of the recommendations of that conference the International Islamic University Malaysia (IIUM) was established in 1983 by the Government of Malaysia. The university's ultimate aim was to produce well-rounded professionals imbued with Islamic values and ethics who would develop the Muslim *ummah* and achieve progress that is in harmony with Islamic ideals. (Amin, Yusof and Haneef, 2011). The mission of the University is to integrate, islamize, internationalize, and engage in a comprehensive excellence (IIICE), an effort that is an integral part of the modern Islamic revival movement which tries to reinvigorate the Islamic heritage and integrate it with western scientific achievements.

Convinced that this project cannot attain its objectives without encompassing it to lower education, and sparked by Dato Dr. Abdul Hamid Abu Sulayman, then the Rector of IIUM, the International Islamic University Malaysia decided to embark in a project that aimed to establish an International Islamic School, which would follow in the same philosophy and adopt a similar concept of integrated and holistic curriculum guided by the principles of Islam, whereby Islamic revealed knowledge will be taught to the children of IIUM Muslim expatriates side by side with the most sophisticated western knowledge that could be found in any international school. Experts from IIUM and from other parts of the world engaged in a preparatory and planning phase, which involved the objectives, content and methods of that integrated curriculum. The International Islamic School opened its doors to students for the

first time in September 1998. It has grown from a humble beginning of 30 students to an enrolment of approximately 900 students today, ranging from the primary level up to A-levels. (Merah, 2013)

4.1 Why IISM type of school is important today?

As stated earlier, in the majority of the Muslim countries there are two prevalent systems of education: governmental, that is modern but secular, and, traditional, that is religious but backward. The first is deeply rooted in Western conceptual educational theories and practices, and partially or completely rejects popular educational doctrines vindicated by the theories of Islamic education. The governmental system of education is satisfied in the best circumstances with the inclusion of some isolated Islamic studies courses to its curriculum, as traditional subjects, taught in the late hours of the school day, and do not go beyond the religious rituals, celebrations and general manners. The second system of education however lacks proper infrastructure, comprehensive and well-structured curriculum, and focus of study and methodology. In other words, it is backward, unproductive, and unable to meet the challenges of the present time.

Muslims are also unhappy with the Islamic educational system. First, they claim the content of the curriculum is limited and outdated. It over-emphasizes the Arabic language, grammar, rhetoric, and religious knowledge. The curriculum is designed to turn every graduate into a *'alim* (religious teacher), a *qadhi* (Islamic jurist), or a *mufti* (Islamic legal scholar). Religious schools do not prepare students to be doctors, engineers, architects, or scientists, nor does the limited curriculum help students to understand contemporary social, political, or scientific issues (Rosnani, 1996). The integrated curriculum that the International Islamic School offers attempts to fill in the gap between these two systems.

4.2 Is the model offered by iism different?

IISM is the first private and International school in Malaysia which adopted an integrated curriculum approach. Another major character of IISM which distinguishes it from other schools in Malaysia is the fact that it is fathered by IIUM, a renowned institution of higher learning which in itself is a model of curriculum integration. Through the Faculty of Education, IIUM provides academic supervision in terms of designing the curriculum, training of teachers, and other services.

The vision of IISM is that it aims to develop a Muslim generation capable of critical, creative and ethical thinking who are Muslims by conviction and who will strive to fulfill their role as Allah's vicegerents on earth. (IISM Student Handbook, 2010)

Like the parent university, the philosophy of IISM implies that all educational processes and activities shall be built on the idea of *tawheed*. As for the mission of the school, it aims to:

Develop strong and highly educated Muslim persons for whom Islam is a complete way of life.

This is achieved by developing a balanced and wholesome Islamic personality whereby one's behavior and attitude are guided through training of the spirit, intellect and emotion as well as developing sound and healthy body. (IISM Student Handbook, 2010)

The philosophy, vision and mission of IISM were demonstrated in the following:

1. Considering that IIUM is adopting concepts of *wasatiyyah* (moderation), tolerance and academic excellence, and embarking in the efforts of islamizing knowledge, these approaches are emphasized, nurtured and reflected in IISM curriculum.

2. The component of *wasatiyyah* is demonstrated in the fact that IISM is open for all students from all over the world, regardless of racial or religious background. Interestingly, the school exercises a high level of tolerance towards non-Muslim students as well as towards Muslim students who belong to other *madhabs* (religious sects), a policy that is evident in the case of *shia* students who joined the school. Such practices reflect a high level of moderation and tolerance, unlike other traditional religious schools which are usually perceived as extremist and hostile towards the other.
3. The pragmatic academic choice of IISM by offering Cambridge International Programs and Examinations, which are among the most popular choices in South East Asia. Cambridge qualifications (IGCSE and A-Levels) permit students to gain entry into local and international universities.
4. To maintain its Islamic identity, and on top of the aforementioned point (adoption of Cambridge qualifications), IISM offers an Islamic curriculum package which, aside from the academic objectives, it strives to achieve the following:
 - a. Creating an Islamic awareness and strengthening the Islamic faith.
 - b. Instilling Islamic *adab*, values and ethics.
 - c. Inculcating familiarity and adherence to Islamic practices and traditions.
 - d. Inspiring students to love Allah, prophets and Islamic teachings.
 - e. The awakening of the spirit of vicegerency.
5. Well-structured school curriculum programs that cover all instruction levels:
 - a. IISM pre-school program (enrolls students from: two and a half years up to five). It offers the following subjects: English, Arabic, Quran, Basic Social studies, Art and Crafts, Physical Education and Games.
 - b. IISM Primary (five-eleven years). It is divided into two levels; Lower Primary Level, which consists of Grade 1, 2, and 3. The main subjects offered for this level are: English, Arabic, Bahasa Malaysia, Islamic Studies, Social Studies, Math, Computer, Qur'an, Art and Crafts and Physical Education. The Upper Primary Level consists of Grade 4, 5 and 6. Subjects taught at this level are similar to those taught in the Lower Primary Level, in addition to the subject of Science. (IISM Brochures, 2013)
 - c. IISM Secondary (twelve-nineteen years). It consists of three levels: Lower Secondary which consists of Grade 7, 8 and 9. The academic subjects taught in this level are: Islamic Studies, Islamic History, Arabic, Qur'an / Ethics (for non-Muslim students), Mathematics, Science, ICT, Geography, History, Art & Design, Physical Education, English & English Literature, Malay/ French and the *hikmah* program (philosophy for children) (IISM Brochures, 2013). The Upper Secondary, which consists of the Cambridge IGCSE years, covers Grade 10 & 11. These grades are divided into two streams; Sciences and Humanities. There are certain mandatory subjects offered at this level, which consist of *tilawah* / Ethics (for non-Muslim students), Islamiyat/ Ethics, *hikmah* program, ICT, Malay/Arabic/French, English, Mathematics and Physical Education. As for the specific subjects they are as follows: for Sciences the students must take Biology, Chemistry, Physics and Additional Mathematics/Business Studies/Arts. Meanwhile, students in Humanities must take Geography/ Arts, Business Studies, Combined Science and History/ Accounting. (IISM Brochures, 2013) The third and final Level is the pre-University (Cambridge A-Levels: Junior and Senior). This level lasts for 2 years and the school offers three related streams; Sciences (includes the following subjects: Mathematics, Physics, Biology, and Chemistry), Humanities (includes Economics, History, and English) and Businesses (includes

Mathematics, Business, Economics, and Accounting). Besides the subjects of specialization, students must attend *tilawah* classes (Qur'an recitation), and Islamic Studies / Moral Education (for Non-Muslim students) (IISM Brochures, 2013)

6. Intensive English Program. This is an additional program specially designed for students who joined IISM from non-English speaking backgrounds. It aims to enable them to master English before joining their formal grades. It is divided into two levels; Beginner and Intermediate. The subjects taught in this program are English and Technical English, Qur'an/ Ethics (for non-Muslim students) Arabic, Mathematics, Physical Education and Art and Design. (IISM Brochures, 2013)
7. Future academic prospects: Because the Cambridge certificates are internationally recognized, students who graduate from IISM, with either IGCSE or A-Levels certificates can get admission in western universities or their counterpart universities in Muslim countries.

As stated above, the core Islamic courses are implemented throughout all IISM's levels. These courses, which include Quran/Tilawah, Islamic Studies, Islamic History and Hikmah program, are designed in a way to help maintaining the Islamic identity and instilling Islamic morals and ethics in the students' minds and hearts. For example, the aim of Islamic Studies subject is to enable students to build an Islamic character based on the teachings of the Qur'an and the Sunnah (tradition) of prophet Muhammad (pbuh), acquire the knowledge of the major sources of Islam, its main beliefs and its early history, develop an enquiring approach to the study of Islam, and to familiarize the students with their Islamic rights and duties/obligations and present the authentic way of how they may be fulfilled. As for Hikmah program, an exclusively philosophical method introduced for the first time in IISM and designed by the Faculty of Education (IIUM). This program aims to train students to think critically and ethically. Our aim is not just to promote critical and creative thinking but also to give meaning to our children's lives. We want to teach our young generation universal values to live by as responsible human beings. In other words, critical and creative thinking should be inculcated as a very early stage to enable children find the best solution within the social context of their lives and for the common good of all (Rosnani Hashim, 2010). The Hikmah Program does not present critical and creative thinking as it is practiced in other schools, but it emphasizes the nurturing of wisdom from all sources of knowledge, especially from the Holy Qur'an and Islamic Traditions.

5.0 CHALLENGES

IISM faces several challenges, among them:

1. The search for accreditation and social recognition: due to its religious symbolism, Islamic educational institutions enjoy great respect and moral support from Muslims. However, the painful reality remains; they suffer from isolation and the stigma of stereotyping from the official authorities occasionally, and from the same sympathizers (the public) in terms of enrolment and preference for formal education choice. In fact, in the present day, few people are prepared to take the risk of enrolling their children at an Islamic educational institution of learning. The threat of slimmer job opportunities and the limited chances for future higher education stands as an obstacle against the thriving and dissemination of such institutions. Facing such difficulty, some Islamic schools in Muslim countries tried to gain recognition by linking with some renowned international educational institutions and adopting their curriculum. IISM was an example of such model when it adopted the British

International Cambridge Curriculum in the year 2000. Though it was a good tool to market the school internationally, it is still regarded by some critics as a kind of reproduction of western educational dominance in modified Islamic colors.

2. Clients' background and expectations: The school has a tendency to become vulnerable to pressure from its clients. Clients of modern and profit making Islamic institutions of learning like IISM are normally rich. They are able to pay the relatively expensive cost of their children's education. These kinds of clients normally espouse a blend of traditional religious values and western cultural trends. They expect the modern Islamic school to be a sort of replica of what is practiced in western schools in terms of subject content, methods of teaching, activities and, more importantly, the facilities of the school. According to an IISM customer survey conducted in the year 2013, about 70% of parents' complaints were about the school facilities (canteen, toilets, sports field, etc.) and the need to upgrade them. They maintained that the condition of these school facilities were not up to the standard if compared to other international schools, and they felt that they are actually paying a sizeable amount and their children deserve better services (IISM Brochures, 2013)

In IISM however, there is another category of parents, mainly Muslim expatriates working at the International Islamic University, who have a different kind of expectation. Most complaints of this category are about academic matters or religious controversies. It is probably worth it to give an example to further clarify what is meant by religious controversies. In 2011, the school decided to introduce a new set of students' uniform for both male and female students, and consequently a small group of parents (mainly IIUM staff) took the lead in criticizing the school and complaining that the new school uniform for female students was not suiting some parents' religious convictions. They insisted that some freedom and tolerance must be given to those who prefer to dress up in a more conservative style. (IISM Secondary, 2011-2012) According to the latest figures 77% of parents of children enrolled at IISM are businessmen, 11% are academicians at IIUM, and the remaining 12% are professionals who work as engineers, architects, medical doctors and so on. (IISM, 2014) This pattern may raise criticism and claims of involvement in reinforcing social inequality by Islamic institutions of learning, in contrary to the spirit of Islamic education that encourages all Muslims to seek knowledge for the sake of God and to preserve the religion.

3. Textbooks content and quality: Since its establishment, IISM has tried to cater for the academic needs of its students through the acquisition of the latest and best books available in the international market, usually recommended by Cambridge Program. The content of the textbooks may contradict with some Islamic convictions and create controversies in the minds of the students. For example, in the science textbook for Grade 9, the first chapter talks about alcohol consumption, another chapter talks about test tube babies and a third chapter is about natural clones. (Greenway, Oliver & Taylor, 2008) While some would argue that these are purely scientific matters, the question that arises is about the ability of IISM teachers to clear the controversy from and explain the Islamic point view vis-a-vis the issue into question!
4. Cultural background of students: IISM's doors are opened to students from all over the world, also known as "the international mobile youth", "global nomads" and "third culture kids" (TCK). Considering the actual large number of countries from which IISM students hail from (presently 42 countries) (IISMS, 2014) we can imagine how challenging keeping order in the school is. The experience of being a TCK is unique because the children are exposed to three cultures before they realize their own identity. The first refers to the culture of the country from which the parents

of the students originated, the second culture refers to the culture in which the family currently resides, and the third culture refers to the amalgamation of these two cultures. The third culture is further reinforced with the interaction of the third culture individual with the expatriate community. (Pollock & Reken, 2001)

5. Teacher qualifications and turnover: Like any other private school, IISM was and is still facing the problem of teachers' turnover. This issue is primarily due to the mobility of international teachers who are constantly searching for greener pastures. The cultural and academic background of IISM teachers could sometimes pose another challenge to the realization of its vision and mission. According to IISM's teachers data, about 54% are non-IIUM graduates. These are the teachers who graduated from other institutions. Thus, there is a high chance that they may not know much about IISM's core values of islamization, *wassatiyah* and integrated curriculum. The cultural backgrounds of teachers who are 57% locals and the rest are internationals present another challenge for the implementation of school's vision and mission. It is highly possible that the international staff's –especially those teaching religious subjects- understanding of Islam, opinions, and interpretation of Islamic jurisprudence wont rhyme with the school's philosophy as well as the views of local colleagues.

6.0 CONCLUSION

Regardless of the many challenges the integrated curriculum in general or IISM in particular are facing, it is rewarding to see young Muslim students joining world class universities pursuing their careers in different fields of knowledge, and at the same time maintaining their Islamic identity. IISM may have not achieved all of their planned goals, but regardless it still carries the honor of being the pioneer, and it is a sign that there is a glimpse of light at the end of the tunnel.

7.0 RECOMMENDATIONS

1. Governments have to extend its help to such projects in terms of developing the curriculum and writing relevant text books.
2. Reviving Islamic education glory will not be realized based on borrowing certain practices from the past, but through serious efforts in developing Islamic educational practices which suit the modern way of life and cater to the needs of the *Ummah* to be self-reliant.
3. The educational system in Muslim countries is a reflection of the socio-economic and political realities of these countries. Thus, collective effort is needed from all active institutions in Muslim societies.

REFERENCES

- Greenway. T, Oliver. R. and Taylor. D. (2008). KS3 Science Book 3. Harber Collins publishers.
- Hussain S.S. & Ashraf. S. A. (1979). Crisis in Muslim Education. Hodder and Stoughton, King Abdulaziz University.
- IISM. (2013). Brochures updated for SIRIM inspection.
- IISM. (2011-2012). Principal's Complaints Records.
- IISM. (2013). Secondary Customer Survey for SIRIM inspection.

- IISM. (2010). Student Handbook.
- IISM. (2014). Students registration data.
- Merah S. (2013) IISM History.
- Rao V. K. & Reddy R. S. (1992)). Education and Development. New Delhi: Commonwealth Publishers.
- Rosnani H. (1996). Educational Dualism in Malaysia: Implications for Theory and Practice. Oxford University Press.
- Rosnani H. (2010) Mira's Trip to the Zoo: Thinking Stories for Muslim Children Series. Saba Islamic Media
- Pollock D.C. & Van Reken, R.E. (2001) Third Cultures Kids: The Experience of Growing up among Worlds. Boston & London ; Nicholas Brealey Publishing
- Whitehead N. A. (1970). The Aims of Education and other Essays. The Free Press and Imprint of Simon & Schuster.

GENERAL CHARACTERISTICS OF ISLAMIC PHILOSOPHY OF EDUCATION: HOW IT IS RELEVANT TO SOCIETY OF GLOBALIZING WORLD

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ABSTRACT

The major aim of this paper is to highlight the general characteristics of Islamic philosophy of education. The basic assumption of the paper is that the Islamic philosophy of education is relevant to the needs of globalizing society, due to certain factors. For that purpose, the four basic educational questions on the recipient, the content, objectives, and the method are discussed. The major problem of Islamic education, according to the paper, is that there is lack of awareness on basic characteristics of Islamic educational philosophy; therefore, it was hard for Muslim intellectuals to deal properly with results of educational problems such as religious extremism and secularism in the Muslim communities; let alone to attract the attention of global community to the advantages of Islamic education system as an effect method to produce a balanced personality. For example, the steering committee of the First World Conference on Muslim Education, which held in Makkah in 1977, emphasizes that:

It is strongly felt that it is necessary for the Muslims to have a truly Islamic education. And education can be truly Islamic only if Muslim scholars can produce Islamic concepts for all branches of human knowledge and Muslim countries disseminate these concepts among Muslim intellectuals and students by getting their mind purified of all non-Islamic ideas and by making them more and more conscious of the significance and utility of these concepts through research projects, textbooks and teacher training programmes (Proceedings of Makkah Conference, p 10)¹.

More than four decades have passed since this statement was, but our students of the higher learning, especially in science and technology, are still depending only on textbooks which produced by others. So, the important question is what is the problem? This paper has attempted to answer this basic question.

Keywords: Islamic education; philosophy; dispositions; discriminative mind; globalization; balanced personality.

¹ *The Conference Book of the First World Conference on Muslim Education*, King Abdul Aziz University, Jeddah and Macca al-Mucarramah. P 10

1.0 INTRODUCTION

The contemporary global crises, especially in the Muslim world, have shifted the attention once again to the question of education and initiated many studies on the topic. The principles underlying the educational systems in these societies in turn cannot be fully understood without understanding the educational philosophy which is the major source of education policies. One of the major problems of education in the post-colonial Muslim world, however, was lack of awareness and clear view on educational philosophy. There was no a unified theoretical vision which guides education policies and the practical part of Islamic education in various countries of the Muslim world². The practical education steps, such as objectives, administration, and curriculum development, should be based on general guidelines drawn by the theoretical part. This principle, i.e. consideration of theoretical part in practice, is essential not only in education but in all Islamic systems. The holy Qur'an, therefore, builds faith (*aqidah*) before practical duties. Without clear view on educational philosophy, our reformation plans on education will be short-termed and less capable of obtaining the desired objectives.

The question of reformation in Islamic thought, in fact, has been aiming at transformation of the traditional approaches of teaching and learning to meet requirements of modernity and challenges of the changeable world. Imam al-Ghazali (d. 1111 ca) had addressed this question early in his "*Resurrection of Religious Sciences*", when the Islamic thought was experiencing the problem of backwardness in scientific thinking and intellectual 'stagnation'. The reformation question came into focus again in the opening of the nineteenth century, when the entire Muslim world rediscovered its backwardness through confrontation with colonial powers. Lack of technology to confront the enemy shifted the attention to problems in patterns of thinking and finally to the education systems. The reformation task was handled by Muslim modernists of colonial era such al-Kwakibi, al-Afaghani, Muhammad Iqbal, Muhammad Abdu, and others; and passed through to the post-colonial and contemporary Muslim reformists³.

The continuous process of reformation efforts has been essential to update education systems to suite new conditions of society. New questions and new challenges on education systems are posted every era. One of the most important reformation efforts in the history of Islamic education was the First World Conference on Muslim Education, which held in *Makkah* in 1977. The three major objectives of the conference were:

- a. Islamic concept of education: definition, aims and objectives;
- b. Means of realizing these concepts in practice;
- c. Mutual cooperation and understanding to realize education objectives⁴

² In fact, as noted by many contemporary Muslim scholars, there is no discussion on the matter of educational philosophy, except views of early Muslim philosophers, such as al-Farabi and Ibn Sina. See, for example, Seyyed Hossein Nasr (1994). *Traditional Islam in the Modern World* (Kegan Paul International- London and New York) (Chapters 8 &9).

³ Many practical education proposals have been made on this topic by many contemporary Muslim scholars. The most prominent works on this matter in English are such as works of Ismail al-Faruqi, M. Naquib al-Attas, Seyyed Hossein Nasr, Fazlur Raman, and others. According to Fazlur Rahman, the five prominent Muslim modernists who worked in the latter half of the nineteenth century to formulate and expound the positive attitude of Islam toward science and investigation of nature, were: Sayyid Ahmed Khan and Sayyid Amir `Ali of India, Jamal al-Din al-Afghani, Namik Kemal of Turkey, and Shaykh Muhammad `Abuh. Study more on this: Fazlur Rahman (1984), *Islam and Modernity* (the University of Chicago Press) pp 49-50.

⁴ *Conference Book of the First World Conference on Muslim Education*. P 10

This conference was every import event which addressed many theoretical and practical questions on Islamic education, but unfortunately there was no clear discussion on the matter of educational philosophy from Islamic perspective. Definition, aims and objectives of education are insufficient to provide a clear view on Islamic philosophy of education. Many activities, such as seminars, conference and workshops, were conducted since then to realize outcomes of Makkah Conference. However, new challenges on education systems are emerging due to the globalization and free movement of ideas and values. Therefore, formation of a clear view on Islamic philosophy of education, that is the theoretical reference inferred from the Qur`an and Sunnah, is essential to deal with all cases and to develop education policies that relevant to address the modern educational questions.

2.0 NATURE OF THE PROBLEM

Education, throughout human history, has been the most strategic plan for development and nation building. It is the only means to secure better future for human society. Education is not only a matter of transmission of knowledge but, rather, it is a process through which the human society can survive by transmission of its ideals, values and achievements to the successive generations. The contemporary progress in science and technology, however, introducing human community to modernity and globalization, has created great challenges to the social dimension of education in its traditional sense. Free movement of ideas and cultural elements through modern communication technologies, and free access to information systems and transmission of information and pictures across the globe are creating a situation of total chaos in education systems. These elements disturb the process of transmission of values and ideals from the senior generations to the junior; and, thus, they span the gap between generations, in term of their values and cultural settings.

Of course, not all elements of globalization are negative, but there are many challenges to education systems, especially in the Muslim societies. More than fifty decades have passed since the autonomy from colonial powers, but the Muslim world is still confronted by many internal and external challenges. The more serious among these, however, are the internal challenges which are mainly results of educational policies and conflicting approaches between the traditional and modernity. The problem of nation building and society development has been the main challenge of the nation-state countries that formed in the post colonial era of the Muslim world. Political and economical instability has been the major feature of majority of these nation-state countries. Even the recent political unrest in some of these countries, which known as ‘Arab Spring’, is seemingly heading towards internal conflicts; rather than being an element of unity and nation building. All these factors are clearly against stability and the much needed process of development. In addition, the problem of religious extremism is once again emerging; it is a global phenomenon, but its symptoms are obviously seen in many of Muslim communities. This will emphasize the misunderstanding of Islam among other nations and may make more difficult to deal with the problem of *Islamophobia*.

The central question posted by such a critical situation needs answer from education policies, based on the fact that our acts and behaviors are caused by our thoughts. In other words, the way we think is reflected by situation of our societies which in turn can be traced back to education in its broadest sense. Hence, the principle factors underlying the current problems in the Muslim world may not be fully understood without understanding the Islamic

educational philosophy and examining its methods of application in the modern Muslim societies.

3.0 EDUCATION AND PHILOSOPHY

In order to understand the concept of 'philosophy of education', it is necessary to understand first meanings of its two components: 'philosophy' and 'education'. These two concepts are generally used for how human approaches the world and interprets its events. For example, education is concerned with how human acquires 'knowledge', but philosophy is concerned with what is 'knowledge' and why we acquire knowledge. In other words, education is concerned with means, while philosophy is concerned with ends with regard to objectives of life⁵. Thus, education is considered as an effective means to achieve the final goals of philosophy. The two concepts are closely related to each other in term of their final objective, which is a meaningful life.

3.1. The two dimensions of education

Terms such as religious education, moral education, and scientific education are used for certain objectives to be obtained through educational process. For example, the term 'religious education' is used for process through which dispositions toward religious behaviour can be created and encouraged⁶. In our investigation on term 'education', however, we can observe that education in its various forms, i.e. formal and informal, is conceived with consideration to two parts: the instructor and the recipient; or the 'source' and the 'recipient'. These two parties represent two different forms of objectives in education process: the personal and the public or the individual and society. With consideration to the first part (individual), we can conceive 'education' as a process of 'transmission of knowledge'; but based on the objectives of second part (society) we conceive it as a process of 'transmission of values'⁷. Terms used for these two parts in Islamic educational tradition are: '*Ta'lim*' and '*Ta'dib*' respectively. Sometimes the term '*Trabiyyah*' is used to stand for both. According to the modern studies, the first type is called the child-centered or person-centered education, which primarily stresses on needs and capacities of the recipient; while the second is known as society-centered, whereby education is conceived primarily as a vehicle to produce good citizens for community purposes⁸.

In fact, there are no major differences between the two conceptions of education, they are indispensably connected to each other; but the first one is more concerned with the individual

⁵ In this context, we differentiate between education objectives and goals of human life; because some philosophers believe that ends of education must be practical. For example, John Dewey holds that "In reality, ends that are incapable of realization are ends only in name. Ends must be framed in the light of available means. It may even be asserted that ends are only means brought to full interaction and integration. The other side of this truth is that means are fractional parts of ends. Study more about means and ends of education: John Dewey (1929), *The Sources of a Science of Education* (Horace Liveright, New York) pp 59-60

⁶ Brezinka, Wolfgang (1992). *Philosophy of Educational Knowledge* (Kluwer Academic Publishers) P43-44.

⁷ Knowledge and values are the two methods of how human understand the world.

⁸ Wan Daud, Wan Mohammad Nor (1998). *The Educational Philosophy and Practice of Syes Muhammad Naquib Al-Attas*. International Institute of Islamic Thought and Civilization (ISATC), Kuala Lumpur). P 121.

persons of community, while other is related to the collective body of society. A child learns almost from every source of knowledge, but he /she gets his values mainly from the community (family, school, etc).

With consideration to the personal part, education can be defined as a process of nurturing the fundamental human dispositions: the psychic (emotional), intellectual, and spiritual, for better understanding of the world⁹. From Islamic perspective¹⁰, the process of learning, which is a continuous process across human life, encompasses the entire component of being: seen and unseen: the universe (nature), man (human phenomenon), and the Ultimate Being (the Absolute). Education in this sense is, simply, a process of awakening the enthusiasm on human powers and inspiring them for learning (Dewey 1929, p 10)¹¹. Through this process, the society develops the desired qualities of individual persons who will be qualified with the integrated formula of knowledge and values to produce the right action. The major objective of education, in this sense, is to equip the new generations by necessary means of dealing with things in proper manner and to be aware of their mission in life and their role in the world. Lacking educated individuals, the society would not be able to achieve its goals for development and better live.

Education, from social perspective is conceived, not just as a matter of knowledge transmission, but more importantly as a process through which human society transmits its ideals, experience, and goals to the successive generations. Through education, a society preserves its identity and perpetuates its life throughout the pages of history; not in term of physical aspects but in term of values and culture. According to the holy Qur`an, as individual peoples die, also societies or nations (*Ummah*) can die due to certain factors. Therefore, a society survives through a process of transmission of certain aspects similar to that of biological life. Living creatures will continue to exist as far as they are able to transform their surrounding environment into energy. They cease to exist when they lost this advantage of being. But what makes a society continue existing? Philosophers of education answer this question as follows:

Society exists through a process of transmission quite (similar) as much as biological life. This transmission occurs by means of communication of habits of doing, thinking, and feeling from the older to the younger. Without this communication of ideals, hopes, expectations, standards, opinions, from those members of society who are passing out of the group's life to those who are coming into it, social life could not survive. (John Dewey 2001, p7).

Education, in this sense, is considered as a major means of connection between generations through transmission of values and ideals of outgoing members of society to incoming members, i.e. new generations. Without social considerations, the new generations will be cut loose from their original cultural values. Therefore, education in social sense is the process by which social groups maintain their continuous existence (Dewey 2001, p 330)¹².

⁹ You may compare this definition to that of John Dewey who used both terms 'forming' and 'nurturing' for definition of education. John Dewey (2001), *Democracy and Education* (The Pennsylvania State University) P 335.

¹⁰ The term 'Islamic perspective' and other similar terms such as 'Islamic philosophy' and 'Islamic education' are used in this paper for concepts and ideas drawn from the original sources of Islam, which are the holy Qur`an and Sunnah of the Prophet (PBUH); all views expressed in this context are, therefore, based upon our conception of these two sources; thus, they might not be free from human errors and should not be out of critical review.

¹¹ Dewey, J. (1929), *The Sources of a Science of Education* (Horace Liveright, New York) P 10.

¹² This might be the main reason why the holy Qur`anic makes a clear distinction between life of a society and life of individuals.

Based on above two meanings, i.e. personal and social, education can be conceived, using Dewey's words, retrospectively or prospectively; that is to say, it may be treated as process of accommodating the future to the past, or as utilization of the past as a resource in developing future. The former finds its standards and patterns in what has gone before. In this case, the earlier presentations constitute the material to which the later is to be assimilated (Dewey 2001, p 84)¹³. Education, as foundation of knowledge and values, has been the major source of inspiration and strategic project for human progress. This crucial role of education in its traditional sense, however, is challenged by the contemporary elements of globalization which presumably spans the gulf between generations and increases the gap between them in terms of their values.

3.2. Philosophy

There are many questions which cannot be answered by direct appeal to observation and experiment, such as meaning of 'knowledge' and purpose of being. This type of topics constitutes the subject matter of philosophical investigation. Philosophy, as a discipline, deals with the fundamental human questions about being and human experience. It generally concerned with how human understands the world and interprets the life. Philosophy meanly aims at attaining the truth; therefore, it literally defined as 'love of wisdom'. This definition, as thought by classical philosophers, is based on the fact that since learning means coming to know, it involves moving from ignorance to wisdom, from privation to fullness, from defect to perfection, from non-being to being¹⁴. The central idea of philosophy, however, is based upon reflective thinking, reasoning, and justification. All concepts of philosophy implicitly show that philosophy as a branch of learning is based on reflection and reasoning. This is the common point between the various schools of philosophy (Alparslan 1994, p 160).

Philosophy deals with questions of both seen and unseen worlds; or science and metaphysics. The subject-matter of philosophy, therefore, encompasses all human experience and all fields of knowledge. It critically examines methods of all sciences, identifies their objectives, their classifications, and explains their basic concepts. The four classical branches of philosophy are:

1. Ontology: concerned with nature of being both seen and unseen worlds (physical and metaphysical). It based on speculative reasoning to understand the whole being.
2. Logic: is theory of correct reasoning, and it provides the method of investigation to uncover the truth based on rules of rationality.
3. Epistemology: means theory of knowledge, which investigates possibility of human knowledge, its sources, methods of obtaining, and final objectives.
4. Axiology: is theory of values, which investigate the major classifications of values, their meanings, sources, and objectives, which includes moral values and ethical norms, aesthetic values (music and arts), and others values such economical and physical values.

Philosophy approaches education in a way which is different from all other fields of human experience. Philosophy uses all other fields as subject matter, or field of study, but it uses education as tool to achieve its goals. Education is basic means to materialize the final objectives of philosophy, or it is the dynamic part of philosophy. Philosophy is theory and education is practice. Looking from the other dimension, education uses philosophy as method to systemize human all activities in both social and natural phenomena. For this

¹³ Dewey, J. (2001), P 84

¹⁴ Ibid, P 338

especial relationship, some philosophers defined philosophy as “the general theory of education” (Dewey 2001, pp 336, 339). These points are elucidated by John Dewey as following:

Philosophy was stated to be a form of thinking, which, like all thinking, finds its origin in what is uncertain in the subject matter of experience, which aims to locate the nature of the perplexity and to frame hypotheses for its clearing up to be tested in action. Philosophic thinking has for its differentia the fact that the uncertainties with which it deals are found in widespread social conditions and aims, consisting in a conflict of organized interests and institutional claims. Since the only way of bringing about a harmonious readjustment of the opposed tendencies is through a modification of emotional and intellectual disposition, philosophy is at once an explicit formulation of the various interests of life and a propounding of points of view and methods through which a better balance of interests may be effected (produced). Since education is the process through which the needed transformation may be accomplished and not remain a mere hypothesis as to what is desirable, we reach a justification of the statement that philosophy is the theory of education as a deliberately conducted in practice (Dewey 2001, 339-340).

It is obvious from the above statement that philosophy plays an important role in systemization of all human activities, especially inquiry in social and natural phenomena. We may conclude that major aim of philosophy is, like religion, to create consistency in our thoughts about world and being, and to reconcile our conflicting interests and actions. This includes all area of human knowledge which is the subject-matter of education

4.0 PHILOSOPHY OF EDUCATION

By now, we may assume that meaning of ‘philosophy of education’ has become obviously clear. This assumption is based on the above two conceptions of term ‘education’, i.e. individual and collective objectives of society, and the central idea of term ‘philosophy’ which based on reflection, reasoning and justification in investigating the ‘truth’. Philosophy of education, according to Dewey, has a double task: first, criticizing the existing aims of education with respect to the existing state of science, pointing out values which have become obsolete (out dated) with the command of new resources, showing what values are merely sentimental because there are no means for their realization. The other task of philosophy of education is to interpret the results of specialized science in their bearing on future social endeavor¹⁵. The major aim of philosophy of education, according to the above two tasks, is serve society through identification and updating the final objectives of education. John Dewey, attracted by his pragmatic approach to philosophy of education, holds that:

‘Philosophy of education’ is not an external application of ready-made ideas to a system of practice having a radically different origin and purpose; it is only an explicit formulation of the problems of the formation of right mental and moral habitudes in respect to the difficulties of contemporary social life. (Dewey 2001, pp 338-339).

In fact, we can approach ‘philosophy of education’ from various dimensions, but for purposes of this paper we will approach it through the basic components of educational process. The foundation of science of education is actually centered on four basic pillars, which are (1) the recipient, (2) education objectives (3) the content, and (4) the method of communication¹⁶. These components comprise the basic subject matter of educational philosophy. To set up education objectives / policies, we must have clear view on all these points. We need to

¹⁵ Dewey, J. (2001), P 337.

¹⁶ Study detailed presentation of these components, Syed Muhammad Naqiub al-Attas (1978). *Aims and Objectives of Islamic Education* (Jeddah: King Abdul Aziz University), p 1

identify carefully the desired dispositions of the recipient that to be formed and nurtured. We also need to know the content of knowledge (curriculum) that necessary to produce such dispositions. Finally, we need to develop an effective method of communication to inculcate the desired dispositions for desired goals of education. The term 'philosophy of education' is, therefore, used for standards based on which the basic educational questions are answered¹⁷. The principal task of educational philosophy, in this sense, is to investigate the necessary conditions for attaining educational goals.

Nations are different in their educational policies based on manner they deal with the above four basic components of education, especially the content and educational objectives. And this constitutes the general principles of educational philosophy. There are many factors involving in formulating the basic structure of these components, such as worldview, cultural values, the urgent needs of society, etc. Based on this, we may give brief description on basic characteristics of Islamic philosophy of education to explain how it is different from other philosophies, and to justify how it should be relevant to the needs of globalizing society of toady.

5.0 CHARACTERISTICS OF ISLAMIC PHILOSOPHY OF EDUCATION

Based on the above definition of 'philosophy of education', we understand Islamic philosophy of education as standards based on which we answer the basic questions of education, namely: (1) what traits of mind and character are essential for transformation and development of Islamic society at both personal and collective levels? (2) What content (area of knowledge / curriculum) is necessary to produce such personal characteristics, i.e. formation of right mental and moral habitudes? And finally, (3) what is the most appropriate and effective method (administrative and instructive) to inculcate such subject of knowledge to produce the desired dispositions? Achieving the societal goals of education mainly depends on the manner that we answer the first two questions. The Islamic philosophy of education depends on both reason and Divine revelation to deal with the above questions.

Actually, these are the basic educational questions which form the subject matter and guidelines for every philosophy of education. However, answers of various communities to these questions are usually not the same. In other words, philosophers put different answers to the education question. The basic question is, therefore, what are the standards which guide Islamic educational thought to answer above questions? Answer of this central question needs analytical study on personal dispositions that required by Islam on one hand and the necessary content of knowledge to produce such dispositions on the other. Any survey on Qur`anic verses reveals that Islam aims at producing a balanced personality (*insan saleh*) and balanced nation (*ummatan wasata*). How to produce such personality and nation need a continuous investigation on other two components of science of education, i.e. the content and the method, taking in consideration that the content must be related to the principles of Divine revelation because man needs to understand both physical and metaphysical worlds. Generally speaking, discriminative mind, effective thinking, and relevant judgment are the major characteristics of a balanced personality.

¹⁷ These standards can be purely rational or can be derived from revealed knowledge as the case in Islamic philosophy of education.

5.1. Discriminative mind (*Hikmah*)

The most important objective of education in the era of free movement of ideas and cultural element is to build a mature and discriminative mind that capable of making the right choice for meaningful life. Discriminative mind or wisdom (*hikmah*) is a result of right mental and moral habitudes, which called “balance” by philosophers. Creating a balanced personality has been essential for development of human society throughout the history, and it is a basic need of materialized community of the contemporary world. The major objective of modern education systems should be, therefore, how to achieve this historic and noble goal. Actually, this is the major question of the Islamic philosophy of education. A careful study of Qur`anic verses and Sayings of the Prophet (PBUH) on this matter reveals that the final objective of Islamic education system is to create a balanced personality and balanced society as well. Unlike the material objects, creating a balance in a human and social phenomenon always depends on various factors. In fact, this might be the major problem that has been associated with the contemporary Islamic education systems. This assumption can be established on two bases: firstly, the idea of balanced personality and balanced nation that emphasized by the original sources of Islam has not given its due consideration in education systems, and has been neglected in many cases¹⁸. The second factor is that, actually, the centre of the ‘balance’ itself is unstable over the time; it is changeable based on changing circumstances of the community; therefore, it needs a continuous review.

For these two points, the modern Muslim education should investigate more on how to create a balanced personality and balanced society. What do we mean by ‘balanced personally’, what are the characteristics and the necessary means to develop such personally? To create balanced personality, of course we must consider all major aspect of humanity in education process: intellectual, physical, spiritual, and emotional. The necessary content of knowledge which satisfies all these aspect cannot be found in science alone or in religious teaching alone, but by both. In other words, the experimental and experiential knowledge must work together for right mental and moral habitudes (knowledge and values). Relevant data to develop an answer for question balanced personality from Islamic perspective can be found in views of early Muslim theologians and philosophers¹⁹; but current situation in Muslim world, with regard to science and technology, suggests focus on intellectual characters of discriminative mind. To provide some guidelines for this, we refer to the Report of Harvard Committee on general education, which has identified traits of mind that should be fostered by education for modern society as following:

1. Ability to think effectively;
2. Ability to communicate effectively;
3. Ability to make relevant judgements to discriminate among values.

These intellectual traits are not separable in practice and are not to be developed in isolation²⁰.

¹⁸ Study about this: Fazlur Rahman (1984), *Islam and Modernity* (the University of Chicago Press). And Seyyed Hossein Nasr (1994). *Traditional Islam in the Modern World* (Kegan Paul International- London and New York).

¹⁹ These views are summarized by Seyyed Hossein Nasr “*Traditional Islam in the Modern world*”, chapter 8 & 9.

²⁰ Conant, James Bryant (1952). *General Education in a Free Society: Report of the Harvard Committee* (Harvard University Press, Cambridge) p 64-65.

5.1.1. Effective thinking

The Report explains effective thinking as following: By effective thinking we mean, in the first place, logical thinking: the ability to draw sound conclusions from premises. Logical thinking is the capacity to extract universal truths from particular cases and, in turn, to infer particulars from general laws. Yet by logical thinking we do not mean the equipment of the specialist or what a student would learn by taking a course in formal logic. We are concerned with the student who is going to be a worker, or a businessman, or a professional man, and who does not necessarily look forward to a career in scholarship or in pure science; as a plain citizen he will practice his logical skills in practical situations: in choosing a career, in deciding whom to vote for, or what house to buy, or even in choosing a wife²¹.

5.1.2. Communicative mind

The ability to express yourself obviously and transmit your views and ideas efficiently, through all means of communication so that can be understood by others clearly without confusing. Conversely, it also means the ability to listen to others to understand their views, without confusing. This characteristic is actually inseparable from effective thinking, because to speak clearly one must have clear ideas. You cannot say something unless you have something to say; but in order to express your ideas properly you also need some skill in communication²².

5.1.3. Relevant judgement

Making a relevant judgment means to make a right choice among the flying ideas and values of the globalizing world. Of course this is definitely not an easy task, but Islamic philosophy of education can play an important role in this situation because its major aim is to develop a balanced personality. Relevant judgement is every important, because it influences our way of life. It involves the ability to bring the whole range of ideas upon the area of experience to make the right choice which leads to meaningful life. Recognizing the balance in all human aspects might be a reasonable standard for choice. The essential thing is that relevant judgment thinkers are constantly aware of the ultimate objectives; they never let means obscure and hide the ends, and be persistent in directing their attentions from the symbols to the things they symbolize²³.

5.2. Area of knowledge

The Islamic philosophy of education is based on Qur'anic classification of the world into two basic parts: seen and unseen. A human being needs to learn both visible and invisible worlds for purposes of meaningful life. One of these worlds is accessible through faculties of knowledge, while the other is understandable only by assistance of Divine revelation. Therefore, the area of knowledge (content / curriculum), from perspective of Islamic philosophy of education must include both realms: seen and unseen or physics and metaphysics; the world that is accessible by our sense perceptions and that which is accessible only by aid of Revelation. Since the unseen world cannot be known in the same manner of the seen world, it cannot be a subject matter of the natural or experimental sciences. Alparslan summarizes the idea of Islamic metaphysics, from an educational perspective, as following:

What is this unseen world that cannot be known yet can be made intelligible (i.e. comprehensible by the mind) only via revelation? To find the Qur'anic answer, we need only

²¹ Conant, J. B. (1952). p 65.

²² Conant, p 67.

²³ Ibid, p 69.

the following explanation: “no one except God knows the unseen world in the heavens and on the earth; nor can they perceive when they shall be resurrected (27:65-66)”. The conclusion one can draw from such verses is that the unseen world includes such concepts as God, the Hereafter, and revelation. If so, then we already know that these concepts are subject to the study of metaphysics in philosophy. Since the Qur`an states that these cannot be known by the human mind, as the mind can only comprehend them after they are taught by the Qur`an, we can infer that the rationalist concept of philosophy, which claims that metaphysical subjects can be discovered and conceived by unaided reason and, more specifically, unaided by revelation, is unacceptable to the Qur`anic perspective²⁴.

The area of learning, according to Harvard Committee Report, was classified into three basic disciplines based on their method of investigation: natural science, social studies, and the humanities. The study of the natural sciences aims at understanding the physical environment, so that we may have a suitable relation to it. The study of the social sciences is intended to produce an understanding of our social environment and of human institutions in general, so that we may develop a proper relation to society. Finally, the purpose of the humanities is to enable man to understand himself, that is to say, in his inner aspirations and ideals²⁵.

Actually, this classification is relevant to be adopted by Islamic philosophy of science, but based on the above classification of the world to seen and unseen realities to accommodate all human aspects in education process. The major aim of this classification is to create a balanced personality through introducing human being to the three major phenomena of the created world: the natural, human and social. Methods of investigating these phenomena are established on different degrees of certainty; therefore, they constitute the three principal areas of learning, beside revealed knowledge.

6. CONCLUDING REMARKS

In concluding remarks, we emphasize that creating awareness on Islamic philosophy of education is an urgent matter in Muslim communities. One of strategic approaches to achieve this noble goal is that philosophy of science and philosophy of education must be taught in institutions of higher learning. Based on the above presentation, it is obviously clear that the Islamic philosophy of education satisfies the basic needs of modern society of globalizing world. The most import base for this claim is that the major aim of Islamic philosophy is to produce a balanced personality that required by materialistic society of the modern world. This important task can be achieved because Islamic education exposes students to both physical and metaphysical worlds. Understanding metaphysical world is related to the principles of revelation. Seyyed Hossein Nasr summaries the general characteristics of Islamic education as following:

In Islam, knowledge was never divorced from the sacred and both the whole educational system and the sciences that it made possible breathed in a universe of sacred presence. Whatever known possesses a profound religious character, not only because the subject of every type of knowledge is created by God but most of all because the intelligence by which man knows is itself a Divine gift. Being related to holiness and hence wholeness, Islamic education has to be concerned with whole being of the man whom it sought to educate. Its goal is not only the training of mind but that of the whole being of the person. That is why it

²⁴ Alparslan Acikgenc (1994). *A Concept of Philosophy in the Qur`anic Context*, *The American Journal of Islamic Social Sciences* (V.11:2). pp 162-163

²⁵ Conant, James Bryant (1952). *General Education in a Free Society: Report of the Harvard Committee* (Harvard University Press, Cambridge) pp 58-59

implied not only instruction or transmission of knowledge (*ta`lim*) but also training of the whole being of the student (*tarbiyyah*). The teacher is not only a transmitter of knowledge (*mua`llim*) but also a trainer of souls and personalities (*murabbi*). For this the term (*mua`llim*) itself is imbued with ethical connotation which in the modern education system have become nearly totally divorced from the question of teaching and transmission of knowledge, especially at higher levels of education. The Islamic education system never divorced the training of the mind from that of the soul and the whole being of the person²⁶. It never considered the transmission of knowledge or its possession to be legitimate without the possession of appropriate moral and spiritual qualities. In fact, possession of knowledge without these qualities is considered dangerous in Islamic educational philosophy²⁷.

The Islamic philosophy of education, therefore, enables man for two tasks: first, to answer the basic cosmic questions about being and life; this will lead to recognition and appreciation of Creator of the universe; second, Islamic education enables man to understand his own self and his role in the created world around him for two purposes: to learn how to deal with it properly and to increase his knowledge of the Creator. These two modes of learning constitute the foundations of knowledge and values and lead to a meaningful life.

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REFERENCES

- Al-Attas, S. M. N. (1978). *Aims and Objectives of Islamic Education* (Jeddah: King Abdul Aziz University)
- Alparslan, A. (1994). A Concept of Philosophy in the Qur’anic Context, *The American Journal of Islamic Social Sciences* (V.11:2)
- Brezinka, W. (1992). *Philosophy of Educational Knowledge*. (Kluwer Academic Publishers)
- Conant, J. B. (1952). *General Education in a Free Society: Report of the Harvard Committee* (Harvard University Press, Cambridge)
- Dewey, J. (1929), *The Sources of a Science of Education* (Horace Liveright, New York)
- Dewey, J. (2001), *Democracy and Education* (The Pennsylvania State University)
- Fazlur Rahman (1984), *Islam and Modernity* (the University of Chicago Press)
- Seyyed, H. N. (1994). *Traditional Islam in the Modern World* (Kegan Paul International- London and New York)
- Wan Daud, W. M. N. (1998). *The Educational Philosophy and Practice of Syes Muhammad Naquib Al-Attas*. International Institute of Islamic Thought and Civilization (ISATC), Kuala Lumpur.
- The Conference Book of the First World Conference on Muslim Education*, King Abdul Aziz University, Jeddah and Macca al-Mucarramah.

²⁶ Nasr, Seyyed Hossein, Ibid P 123.

²⁷ Nasr, Seyyed Hossein (1994). *Traditional Islam in the Modern World* (Kegan Paul International- London and New York) pp122-124.

FUTURE ISLAMIC STUDIES CURRICULUM AND ITS INSTRUCTION: A GLIMPSE AT AL AMIN INTEGRATED ISLAMIC CURRICULUM (AAIIC)

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ABSTRAK

Kertas kerja ini memberi penumpuan kepada kandungan kurikulum pengajian Islam serta metodologi penyampaian yang bersesuaian untuk masa ini dan akan datang. Abad ke dua puluh satu yang diwarnai dengan kepelbagaian dari aspek ciri-ciri dan jurang generasi, pendedahan kepada alam siber tanpa sempadan, kemudahan teknologi maklumat dan komunikasi serta proses pembaratan yang sangat pesat memerlukan perhatian yang serius dan khusus. Untuk membekalkan pelajar dengan kurikulum pengajian Islam beserta penghayatannya dalam abad ini, aspek-aspek tersebut perlu diambil kira. Sebelum itu, gambaran sepintas lalu mengenai perkembangan kandungan kurikulum pengajian Islam dan pengajaran turut dibincangkan.

ABSTRACT

This paper focuses on Islamic studies curriculum and its instruction that is appropriate for this contemporary age and century. The twenty-first century is marked by diversity in terms of generation gap and its characteristics, the readily exposure to the borderless cyberspace, the availability of information technology and communication facility and the fast encroaching westernization process, which require very serious and special attention. To provide students with the appropriate Islamic studies curriculum and instruction, and hence its internalization these aspects should be taken into consideration. Prior to that, an overview of the development of Islamic studies curriculum and its instruction is also discussed.

Keywords: islamic studies, curriculum, instruction, contemporary, future, worldview, civilization

1.0 INTRODUCTION

The present condition of the Muslim state and Ummah (community of Muslims) are way behind not only in science and technology, information and communication technology (ICT), and physical development but most importantly adoption of principles such as justice, freedom, wisdom and bring goodness to people are also lacking. These are the universal and yet inclusive principles, which form the very purpose of Shari'ah (Audah, 2008). To our surprise, Ireland followed closely by Denmark and Luxembourg are at the forefront of the Islamicity index, ahead of most Muslim countries with respect to the proximity of principles to those in the Qur'an, which they applied on economic justice, legal governance and structures, human and political rights and international relation (IslamiCommunity, 2014). To rectify the situation, education being the main vehicle of civilization should play a pivotal role in revitalizing the Ummah. Muslim intellectuals and scholars should deliberate on issues of Islamic education ranging from simply establishing an Islamic school to the complexities of designing the right curriculum and its instruction.

2.0 BRIEF DEVELOPMENT OF ISLAMIC STUDIES CURRICULUM AND ITS INSTRUCTION

The knowledge of Islam came down to the world through our Prophet Muhammad PBUH more than 1400 years ago. The first five verses of the Qur'an from Chapter *al-'Alaq* (the Clot), which says

- 1) Proclaim! (or Read) in the name of your Lord and Cherisher, who created
- 2) Created man, out of a leech-like clot.
- 3) Proclaim! And your Lord is Most Bountiful,
- 4) He Who taught (the use of) the Pen,
- 5) Taught man that which he knew not

had successfully transformed the worldview of the Arab society with respect to their theological, metaphysical and epistemological dimensions, that is, the verses had revolutionized the thinking of the pagan Arabs (Wan Daud, 1998). With the pronouncement of the word *Iqra'* followed by twenty-three years of instructional Divine had developed the worldview which formed the basis of every action of the early Muslim community. This worldview changed and shaped the beliefs, personality, thoughts, ideas, and practices which successfully formed the community on a system that benefited all. A system that prioritized *maqasid al-Shari'ah* (objectives or benefits of Shari'ah) ensures the Muslim community to also protect the rights and responsibilities of non-Muslim communities as enshrined in *Sahifah al Madinah* (Constitution of Madinah). On this understanding, a kind of consensus and cooperation was formed among all members of society of diverse ethnic and religious groups, which led to foster a prosperous civilization.

In the early days of Islam, the Islamic knowledge was transmitted through a simple preaching by the Prophet PBUH himself to the companions RA be it in public or private. The house of al Arqam RA and the seat of *ahl al-Suffah* in the Masjid al-Nabawi besides *halaqah* (circles) were known to be early seats of learning in Islam for adults and *kuttab* or *maktab* held in the mosques were for childrens' education. As time progressed, the Islamic knowledge for children was organised accordingly from the rudiments of writing, reading and memorization of the Qur'an, studying grammar and doing calligraphy, and arithmetic to a more advance and complex combination (Nor Zalmiah, 2009).

The early Middle Period, which began in 950 A.D marked the most creative period of the intellectual history in Islam. Aside from the classical religious sciences being solidified, the translation and transmission of foreign sciences had finalized their chapters, which was an important and significant chapter made possible and flourished by the early Umayyad conquests and especially 'Abbasid's ascension to power (Gutas, 1998). A more than century of translation and preparation allowed the Muslims to come into full possession of all the available knowledge from the Greek, Indian, Persian, and Greco-Roman (Amin, 1946). By the end of the 10th century, 'almost *all* non-literary and non-historical secular Greek books that were available throughout the Eastern Byzantine Empire and the Near East were translated into Arabic' (Gutas, 1998). The latter was preceded by 'reliable manuscripts were sought, even as far as Byzantine empire, texts were carefully copied and collated, editions were produced, translations were made, and commentaries were written' (Kraemer, 1992).

Noteworthy, in the 14th century knowledge of al-Qur'an remained central in the curriculum of the day despite the variation in time allocation that is subjected to each region namely the Maghrib, the Spain, the Africa and the East (Ibn Khaldun, 1958). The East as noted by Ibn Khaldun retained the tradition of scientific instruction whereby it trains students in the ability to express oneself clearly in discussing and disputing scientific problems, which could not be acquired through much memorization (1958). However, this was conducted poorly in the Maghrib and was disappearing among the inhabitants of Spain (Ibn Khaldun, 1958). The education system which existed then was unique in the sense that,

the system that produced great scholars in the past was not restricted to the *madrasah* as a formal institution, but rather to the whole learning culture of the community, of the varied learning institutions, the scholars as institutions in themselves, the institution of *subhah* or fellowship, the culture of *rihla* and the political leadership (Hannan, 2003)

Scientific process (Acikgenc, 2008), which constitutes stages commencing with a worldview to problems, disciplines, naming, and progress had produced a multitude of multidisciplinary scholars and disciplines to the extent of some being encyclopedic. It is from this fountain of intellectual and scientific traditions that the Europeans in the renaissance period quenched their thirst and inherited the Muslim legacy, which served as the basis of their intellectual awakening (Watt, 1972). The Muslim legacy is a rich intellectual heritage that springs from various sources which are the Qur'an and al-Hadith, and also from the civilizations of Greek, Persian, Greco-Roman, and Indian.

Somehow, the post colonialization period saw the curriculum and its instruction assumed in a different form. What exists today somehow depicts the extend the Muslim education particularly Islamic studies curriculum and its instruction was effected by colonisation that slowly pave the way for westernization.

2.1. The Present State of Muslim Education and Islamic Studies Curriculum in Malaysia

Malaysia with more than 50% of her population being Muslims from inception has given attention to Muslim schools and its curriculum. Its development from private to formal education and its curriculum development are succinctly elaborated in 'Educational Dualism' (Rosnani, 1996). To date Malaysia has private, semi private, government and international Islamic schools implementing either private, Malaysian religious bodies, national and

international curriculum such as al Azhar. The latest addition to Islamic school is MARA's *Ulul Albab* Science Junior Colleges (MRSM). Under this program, in addition to academic and religious studies elective they also offer a *Tahfiz* program, which they hope to produce professionals and *huffaz*. Undoubtedly, the administration and management of some of Islamic schools are becoming more efficient and professional but the instruction of curriculum is yet to be up graded and more contemporary in line with the development of ICT. Despite the Malaysian government effort at introducing such as high order thinking skills (HOTS), child centered education as well as collaborative, exploratory and mastery learning in teaching and learning (TnL), not much progress is seen in TnL of Islamic studies curriculum and its instruction.

Sardar (1985) states that, 'both the classical and the modern approaches to Islamic studies concentrate on Islam as a religion and culture. Be it memorizing the Qur'an or Hadith, mastering the opinions of the classical jurists or learning Islamic history, the emphasis is on rote learning and collecting facts', thus amounting to students being vast storehouses of facts and opinions. Contemporary literature on Islamic education also highlights the traditional approach to curriculum and instruction of Islamic studies. Among the practices are the emphasis on memorization (*hifz*) than understanding (*fiqh*), memorization of facts than internalization, *fiqh* originally intended to mean religious insight and discernment becomes restricted to mean jurisprudence, and becoming *huffaz* (those who know the Qur'an by heart) assumes as the primary objective as compared to the early generation of *huffaz*'s engagement towards understanding al Din. Al Qardhawi (1996) cautions that the existing Islamic education system's preference to *hifz* in a way could result in producing silent witnesses devoid of deep comprehension. What is worrying, the Muslim mind does not have enough courage to analyze its intellectual legacy or what it holds as sacred resulting in not understanding what is really important, distinguishing between what is fundamental and absolute, and what is temporary and limited as emphasized by AbuSulayman (1993).

It is timely to note the point made by Rahman (1982) that Islamic intellectualism should be the essence of especially higher Islamic education for the growth of genuine, original and adequate Islamic thought is the real criterion for judging the success or failure of an Islamic education system. Thus, Sardar (1985) proposes that Islamic education system should aim at producing *insan* whose 'strength lies in the ability to perceive Islam not as a mere religion but as a dynamic world-view, to synthesize the historical and the modern, and to appreciate the concerns of the traditional sectors of the Muslim population while possessing the intellectual apparatus to communicate with the modernists'. This kind of *insan* is further refined by al Attas (1999) as man of *adab* (*insan adabi*), that is a man with a disciplined body, mind, and spirit with respect to his obligations towards his Creator, Allah SWT.

3.0 A FRAMEWORK FOR FUTURE ISLAMIC STUDIES CURRICULUM: HIGHER LEARNING

Future Islamic studies curriculum is proposed to embrace the entire field of traditional Islamic knowledge. The uniqueness of this curriculum is that it holds worldview of Islam as important. Islamic principles and concepts are intended to shape the thinking and understanding on Islam's comprehensiveness, which is beyond religion, culture or way of life. Appropriate for this age, Islam needs to be translated as a civilization that spans the fields of religion and spirituality, worship and *muamalah* (interaction between people), law and justice, politics and government, economy, education and science, art and literature,

culture, nutrition and health, science and technology and the environment. Applying relevant principles from al Qur'an and al Hadith in those fields helps build a prosperous civilization.

Islamic worldview which revolves around the oneness of Allah SWT, apostleship, the purpose of creation, morality and values, knowledge, and the Hereafter will provide a firm and strong standing against all kinds of doubts, chaos, confusion and uncertainties as a result of embracing Western worldview (process of westernization). The view has succeeded in shaping an understanding and thinking of a large number of Muslim *Ummah* in matters of religion, science, ethics and education, science and technology, tradition, modernity and development. A westernization of thought will result in forming alien values, culture, thoughts, and even stance among generations of Muslims today. Thenceforth, the resulting reaction or solution offered to the problem today is not real solution rather it results in new problems or lead to more destruction.

In order to interpret Islam as a civilization, TnL of the traditional Islamic studies curriculum needs to be presented in the form of a worldview. Two pre-requisites for implementation are:

- a) Curriculum should not be compartmentalized according to traditional division but instead it should be integrative in nature
- b) TnL should be in the form of a multi-disciplinary and inter-disciplinary approach in which wisdom is highlighted, 'izzah (take pride in being Muslims) is nurtured and collection of facts and data should be minimal.

3.1. Organization of Subjects

3.1.1. Sources of Islamic Thought

Islamic thought is derived from the Revelation and reason. Revelations as contained in the Qur'an are translated by al-Sunnah and developed further by the use of guided mind. Intellectual environment at the beginning of Islamic civilization has led to the exchange of knowledge in the field of theology, philosophy, metaphysics and logic. This activity involved not only Muslims but also others of different religions, cultures and nations who contributed to the enrichment of the body of knowledge in Islam. However, the "materials" procured by the Muslims from diverse sources during the first three centuries of Islamic history, were infact integrated and absorbed into the unitary perspective of Islam (Nasr, 1976). The intellectual tradition spans various aspects in scope and depth covering *ulum* al-Qur'an (science of al Qur'an), *ulum* al-Hadith (science of al Hadith), *usul al-fiqh* (principles of jurisprudence), *'ilm kalam* (teology), *tasawwuf* (metaphysics), philosophy, logic and science.

3.1.2. Worldview of Islam

Worldview of Islam revolves around the principles and basic concepts of Islam amongst which are the Divinity, apostleship, the creation of man and nature and its purpose, knowledge, moral, value and causality. They are in fact elements of philosophy in the Islamic perspective. The perfect world and full of beauties would somehow jolt the human's conscience with regards to the existence of the Creator, Who administers the world with love, compassion and care. The belief that life in this world is temporary and the Hereafter is eternal, will lead men to be vigilant with respect to their actions. His lowly origin must make men realize their responsibility to inhabit and perform their roles and duties on the earth in such a way that Allah's justice prevails. Knowledge and values, which are based on authentic and permanent sources, will add confidence and give exposure to real truth. In sum, this

section will focus on *iman* (faith), Islam and *ihsan* (striving for excellence) as well as related matters so as to be able to further clarify the principles and concepts discussed.

3.1.3. Foundations of Islamic Civilization

Sirah (biography) of the Prophet PBUH serves as the basis of reference for contemporary Islamic civilization. Early effort and contribution made by *Khulafa 'al-Rashidun* (the Rightly Guided Caliphs) followed by Muslim rules before and after the Mongol invasion portray the nature of civilization which was supported by the systems and institutions then. Based on the basic principles of al-Qur'an and al-Sunnah and these models, a form of contemporary civilization may be realized. Biography of the Prophets AS, history of Islam, concepts and principles as well as some of the systems and institutions of choice are to be frame of reference and shall be translated in the changing circumstances. In short, adopting a contemporary Islamic *asalah* solution becomes the agenda of reviving the *Ummah* and civilization.

3.1.4. Contemporary Fiqh (*Fiqh al-Mu'asirah*)

Life today requires a true understanding of the reality and change. The state of the community and *Ummah* today is shaped by various factors. Effort to identify these factors is important so that a problem can be addressed reliably. Challenges in thoughts, globalization, science and technology as well as change and development must be assessed in accordance with the framework of Islamic thought. In the effort to move forward, oftentimes the *Ummah* is held back by certain classical *fiqh*. Thus it is timely to venture into this confine and offer appropriate *fiqh* as a way forward.

3.1.5. The Caliph Program@Al Amin

The Caliph program provides opportunities for students to apply theory in real situations. It extends an opportunity to serve the community, nation and the world while portraying Islam as *rahmatan lil 'alamin* (mercy to the universe). Research based activities and in-depth involvement are to be part of this program. Most importantly, under this program students are trained as leaders and will also undergo a *Tarbiyyah* (training) program with all its *wasail* (means) and objectives as means to nurture Islamic identity (Nor Zalmiah, 2011).

Students pursuing this Islamic studies curriculum will be able to:

- a) Understand and appreciate the comprehensiveness of Islam.
- b) Understand and appreciate the worldview of Islam.
- c) Understand and internalize the role of '*ibad and khulafa*' (servants and vicegerents) towards self-improvement, community and the world in their respective fields of involvement or specialization
- d) Evaluate and analyze current problems.
- e) Solving current problems according to the worldview of Islam's framework
- f) Prepare students to:
 - i. deal with the present and future challenges therefore the curriculum should be relevant, dynamic and meaningful.
 - ii. invite others to goodness, justice, brotherhood, freedom, and equality in accordance with the nature of Islam as *rahmatan li'l 'alamin*.
 - iii. be equipped intellectually, spiritually, emotionally, socially, and physically.
 - iv. enhance the integration between acquiring knowledge and internalization

Realizing the fact that experts in the field of religion need to be groomed to face challenges outside their own field, a curriculum that addresses current issues is needed. Further studies, research, and refinements will be able to realize a viable future Islamic studies curriculum. It is hoped that Islamic curriculum of this century has the ability to cope with the challenges of contemporary cultures and thoughts.

4.0 PPAAB'S EFFORT AT AL AMIN INTEGRATED ISLAMIC CURRICULUM AND ITS INSTRUCTION

With the passing of time, policy makers, leadership and management as well of educators exert and research the most suitable curriculum and its instruction. One of the outcome of PPAAB's retreat held at Gambang, Kuantan in early 2013 is to study the prevalent, latest and most appropriate curriculum and its instruction for children of this age but not at the expense of neglecting the knowledge, attitude and skills to be acquired by Muslim children. Around the globe, we are familiar with Montessori methods, International Baccalaureate program and of late International Primary Curriculum program and naturally they become PPAAB's Curriculum, Research and Development Committee's object of study in addition to Finland education and Gulen's method.

There are elements from each of those educational programs, which fulfill and attract our attention with respect to future curriculum and its instruction. Features such as 21st century objectives (world, student, skill), thematic, big ideas, goals (personal, subject and international), learning process or structure (sound principles, rigorous, up to date, enjoyable, time saving, comprehensive), interdisciplinary and multidisciplinary, unit of work, learning style (collaborative, exploratory, mastery, inquiry, research and record) and last but not least assessment for learning best fit our description of future curriculum and instruction.

By adopting those ideas, we hope to develop students into multi-perspectival, adaptable, resilient, internationally-minded, communicators, moral, thoughtful, co-operative, respectful, enquirers and FAST (*fatamah, amanah, siddiq, tabligh*) (wisdom, trustworthy, truthful, convey) personalities through learning activities which are meaningful or exciting, enriching or engaging, energetic or active, reflective, independent, innovative, effective and making connection.

4.1. Principles and Values to be adopted in AAIC and Instruction

4.1.1. Children and students should be encouraged to inculcate the spirit of inquiry and explore.

4.1.2. The characteristics of active students should include among others wonder, plan, investigate, discover, reflect, share and act.

4.1.3. Spiritual and Character Education should emphasize on inculcating faith, knowing roles and responsibilities, encouraging goodness, refraining from prohibited acts, feelings, attitude and way of life and developing skills in al Qur'an.

4.1.4. Adoption of challenging and inspirational ideas.

4.1.5. Effective TnL should be meaningful, integrative, value-based, challenging, and TnL Islamic studies should be active, interactive and interesting

4.1.6. TnL should focus on developing HOTS, indepths knowledge and related to the real world

4.1.7. Measurement and evaluation should be organized, in accordance to standard and quality, continuous and fair.

(Tawhidi, 2001-6 & PPAAB, 2002)

4.2. A Glimpse at Proposed AAIC and Its Instruction

Having considered the proposed future Islamic studies curriculum and its instruction, AAIC is planned to adopt the followings:

4.2.1. The curriculum content should prepare the students with the knowledge, skills and attitude, which are necessary to face contemporary challenges.

4.2.2. TnL of Islamic studies should employ styles, tools and technology that fit 21st century and generation.

4.2.3. Students should be made to understand Islam as a civilization *vis a vis* religion, culture or even way of life hence TnL adopts interdisciplinary and multidisciplinary approach

4.2.4. Students should be made aware that Islam is *rahmatan li'l 'alamin* thus language and cultural barriers should be addressed and programs or activities for that purpose should be made available for them.

4.2.5. Most importantly, students should play their roles as '*ibad* and *khulafa*' equipped with worldview of Islam as framework that enables them to provide solutions to contemporary challenges and problems.

AAIC is designed such that it is comprehensive and holistic thus constitutes elements of J-TASK namely *Jasadi* (physical), *Tawhidi* (belief in Oneness of Allah : spiritual), *Aqli* (intellectual), *Syu'uri* (emotional) and *Khuluqi* (character).

AAIC learning goals are comprised of subject, personal and universal or *ummatic*. Personal goal comprises *Mardhatillah* (seeking Allah's pleasure) in *salimul aqidah* (true faith) and *shahihul ibadah* (valid worship); *Ihsan* (striving for excellence) in *qawiyyul jism* (physical fitness), *matinul khuluq* (firm character) and *mujahadatun linnafs* (striving for Allah's sake); *Ithar* (preferring others above oneself) in *muthaqqaful fikr* (intellect), *harithun 'ala waqtihi* (time management), and *nafi'un lighairihi* (benefit others); *Islah* (embracing transformation) in *qadirun 'ala kasb* (ability to earn) and *munazzamun fi syu'unih* (well organized).

AAIC core subjects for secondary level include *Tasawwur Islami* (Sources of Islamic thought, Worldview of Islam, Foundations of Islamic Civilisation, Contemporary *Fiqh*, the Caliph Program), Language Arts (Arabic and Mandarin), Social Studies (Psychology, Anthropology, Humanities), Arts, Designs & Technology (Visual, Auditory, Fine, Performing, Culinary, Agriculture, Handiwork), and last but not least Science of Al-Quran and Science of Hadith, which will be in Arabic. Interdisciplinary and multidisciplinary approach as well as

ScienceOn1 (*ilm* as in *tawhidic*, Oneness of God perspective) approach will be adopted in TnL.

A sample of proposed theme for secondary level is 'Others and I' wherein we will find out Allah as the creator in *Tasawwur Islami*, Surah al-Ikhlās in science of al Qur'an or al-Hadith, the beginning of humanity (Adam and Eve) and relationships between races and countries in social studies (history or *sirah* of the Prophets AS), parts of human and *Ismul 'isyarah* (noun) in language arts (Arabic and Mandarin), varying arts, designs and technologies in Arts, Design and Technology, and we will be finding out different types of music genre in music or history of civilization.

Having shared the above, despite some deliberations AAIC needs further refinement.

5.0 CONCLUSION

In conclusion, Islamic education should be more concerned with what it means to be Muslims (transformation) than teaching about Islam (information). The goal of Islamic education is not to fill their mind with as much information about Islam as possible but rather to guide and assist them in becoming Muslims, inspiring them to transform themselves in the process and equipping them with the knowledge, attitudes and skills most fitting for the 21st century yet remaining as '*ibad and khulafa*'.

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REFERENCES

- AbuSulayman, 'AbdulHamid A. 1993. *Crisis in the Muslim Mind*. Herndon : IIIT.
- al-Attas, S. M. Naquib. 1999. *The Concept of Education in Islam*. KL: ISTAC.
- Al Qardhawi, Yusuf Abdullah. 1996. *Fiqh al Awlawiat*. Trans. Asmawi A.N. Kuala Lumpur : Thinker's Library.
- Alparslan Acikgenc. 2008. *Decline and fall of Islamic Scientific Tradition*. Paper presented at First ISTAC International Conference on Islamic Science and the Contemporary World, 9th – 10th January, 2008.
- Amin A. Khairallah. 1946. *Outline of Arabic Contributions to Medicine*. Beirut: American Press of Beirut.
- Daud Tauhidi. 2001-6. *The Tarbiyah Project : A Holistic Vision of Islamic Education*
- Ibn Khaldun. 1958. *Ibn Khaldun: The Muqaddimah*. (Vols. 1-3). (Franz Rosenthal, Trans.). New York: Princeton University Press.
- IslamiCommentary. Available at <http://islamicommentary.org/2014/06/listen-ireland-tops-islamicity-index/> [Accessed on 14 October 2014]

- Gutas, D. 1998. *Greek Thought, Arabic Culture: The Graeco-Arabic Translation Movement in Baghdad and Early 'Abbasid Society (2nd – 4th / 8th – 10th centuries)*. London and New York: Routledge.
- Kraemer, J.L. 1992. *Humanism in the Renaissance of Islam: The Cultural Revival during the Buyid Age*. Leiden, New York, Koln: E. J. Brill.
- Mohammad Hannan. 2003. *Concept of Higher Learning in Medieval Islam and Its Relation with Ijazah*. Unpublished Master Thesis, ISTAC International Islamic University.
- Montgomery, Watt. 1972. *The Influence of Islam in Medieval Europe*. Edinburgh: Edinburgh University Press.
- Nasr, S.H. 1976. *The Three Muslim Sages*. New York : Cravan Books
- Nor Zalmiah Jahidin. 2009. *Treatment of Knowledge : The Case of Al-Biruni and Ibn Battuta*. Unpublished PhD Thesis : ISTAC, IIUM.
- 2011. *Program Khalifah @ Al Amin*. Unpublished Working Paper for PPAAB.
- PPAAB. 2002. *Tasawwur Islami : Sukatan Pelajaran SRIAA dan SMIAA*.
- Rahman, Fazlur. 1982. *Islam and Modernity*. Chicago : University of Chicago Press.
- Rosnani Hashim. 1996. *Educational Dualism in Malaysia : Implication for Theory and Practice*. Kuala Lumpur : Oxford University Press.
- Sardar, Ziauddin. 1985. *Islamic Futures : The Shape of Ideas to Come*. London and New York : Mansell Publishing Limited.
- Wan Daud, Wan Mohd Nor. 1998. *The Educational Phillosophy and Practice of Syed Muhammad Naquib Al Attas : An Exposition of the Concept of Islamization*. Kuala Lumpur : ISTAC

MAQASID SHARIAH AND THE ROLE OF SCIENCE IN ITS PRESERVATION

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ABSTRACT

Man is created to serve as Allah Taala 's vicegerent on this earth with a specific mission. To ensure his role is in peace and harmony with nature, *Maqasid of shariah* (objectives of the shariah) defines laws to protect *al-din* (religion), *al-nafs* (life), *al-'ird* (dignity or lineage), *al-'aql* (intellect), and *al-mal* (property). This paper discusses the elements of *Maqasid shariah* and how these are developed by understanding what the purpose for creation was in the first place. It highlights the history of Islam and the parallel growth of religious knowledge as well as in scientific knowledge of Islamic civilisation and shows that these two are regarded both ends of the same spectrum as far as Islam is concerned. The paper also explains how science plays a role in preserving the *Maqasid of shariah* in the context of current developments for the peace and harmony of human kind.

Keywords: maqasid shariah, role of science, islamic civilisation

1.0 INTRODUCTION

Man is but a tiny part of the creation of the universe. Allah swt created the universe and everything that lies within it in order that His entire creation will submit their will to Him. Allah swt says in the Holy Quran,

“And We created not the heavens and the earth, and all that is between them, for mere play. We created them not except with truth (i.e. to examine and test those who are obedient and those who are disobedient and then reward the obedient ones and punish the disobedient ones), but most of them know not” (al-Dukhaan 44:38)

As one of God’s creation, man’s role has also been explicitly defined as follows;

“Verily I have not created Man and Jin except that they will worship Me”
(az Zariyat, 51:56)

Besides worshiping Allah, man’s role is also to serve as His vicegerent on this earth.

“And (mention, O Muhammad), when your Lord said to the angels, “Indeed, I will make upon the earth a vicegerent.” They said, “Will You place upon it one who causes corruption therein and sheds blood, while we declare Your praise and sanctify You?” Allah said, “Indeed, I know that which you do not know” (al Baqarah 2:30)

Being Allah’s vicegerent on this earth entails three main roles

- 1) Worshipping Allah and doing good deeds in all sense
- 2) Establishing an equitable, just and harmonious society based on the Sharia
- 3) Being at equilibrium with the environment and in charge of its preservation

The above roles are what defines the amanah (trust) offered by God at first to the heavens and mountains but they declined due to its heavy responsibility and this role fell to man who accepted it.

“Indeed, we offered the Trust to the heavens and the earth and the mountains, and they declined to bear it and feared it; but man undertook to bear it. Indeed, he was unjust and ignorant” (Surah Al Ahzab 33:72)

A complete guide for his role and responsibilities are defined in the form of Shariah law which is a moral and religious code of ethics and conduct. Sharia (Islamic law) deals with many topics including crime, politics, social interactions, economics as well as personal matters such as sexual intercourse, praying, fasting and pilgrimage. Adherence to Islamic law has served as one of the distinguishing characteristics of the Muslim faith historically, and through the centuries Muslims have devoted much scholarly time and effort on its elaboration. The prime goal of shariah is to protect and preserve the good (maslahah) for man in his role as vicegerent on this earth as well as to preserve him from harm (mafsadah).

2.0 MAQASID SHARIAH – ITS DEFINITION AND CONSTITUENTS

The understanding of Maqasid Shariah is an essential need for every Muslim all over the world. The term of Maqasid and Shariah are derived from the Arabic word that means objectives of Islamic law.

According to Abdul Karim Al-Zaidan (1990), maqasid Shariah refers to an act of achieving and protecting the benefits and good (masalih) for the sake of human beings. Likewise, Imam

al-Ghazali also describes maqasid Shariah in a view that benefits (masalih) that should be consistent and in line with the objective of the Shariah, since the basic purpose of Islamic legislation is to protect the interest of people against harm (mafsadah).

According to the Muslim scholars, the benefits (masalih) of maqasid Shariah can be categorized into three which are necessities (dharuriyyat), convenience (hajjiyyat) and refinement (tahsiniyyat).

1) Necessities (Dharuriyyat)

The first category is the necessities (Dharuriyyat) that covers five areas which form the basic needs of human's existence; (1) religion (deen), (2) life (nafs), (3) intellectual (aql), (4) lineage (nasb) and (5) property (maal). These five necessities are the basic needs for human existence; for man to live up to his ascribed role well, all five aspects must be protected. Any aspect that is neglected or ignored will create an imbalance in the order of things leading to societal disorder and eventual decline. For example Allah Taala mandates Solat five times a day with a weekly congregational prayer to strengthen the spiritual strength and brotherhood of Muslims. Abandoning Solat corrupts the soul leading to succumbing to forbidden desires and committing acts of sins which eventually affects the whole society. He forbade abortion and wanton killing to protect human lives preventing decline of birth rates and societal chaos and disorder. Similarly alcohol and drugs are forbidden to preserve the mental faculties of man, zina or adultery are forbidden to protect lineage and man is allowed to own private property but not to oppress or cheat others in doing so.

2) Convenience (hajjiyyat)

The second category is the convenience (*hajjiyyat*). It refers to something that people require to avoid constraint and difficulties in their life. The main purpose is to eradicate hardship and difficulties; people can still survive if they avoid or are denied this interest but their life will be difficult. For example providing public transport, lighting and sanitation and marketplaces to facilitate trade and using currency for trade or credit facilities are examples of hajjiyat. Society and its leaders have a responsibility well beyond preserving the dharuriyyat to provide hajjiyat in order to increase the standard of living and convenience of the general public in their daily affairs and routines.

3) Refinement (tahsiniyyat)

The third category is the refinement (*tahsiniyyat*). It refers to the continuous act to make human life easier and always in line with the highest standard moral conduct and standard of living. If people neglected it, it will not affect the whole life structure or making life difficult and hard, but life become far from the moral virtues and good nature. Practicing good social culture, air-conditioned mosques, parks for rest and recreation, supermarkets etc are some examples of tahsiniyat which promote good symbols for a civil society. Highly developed countries like Japan, Sweden, US and the UK provide facilities and housing for the aged, handicapped and mentally disabled, recreational facilities, life-long learning opportunities and libraries which serve to achieve self-fulfilment and satisfaction. These are examples of tahsiniyat.

3.0 SCIENCE AND ISLAM

The Quran is full of many verses which allude to the importance of understanding science as a means of nearing oneself to God

Allah swt says,

“Indeed, in the creation of the heavens and the earth and the alternation of the night and the day are signs for those of understanding. Who remember Allah while standing or sitting or (lying) on their sides and give thought to the creation of the heavens and the earth, (saying), "Our Lord, You did not create this aimlessly; exalted are You (above such a thing); then protect us from the punishment of the Fire.” (Ali Imran 190-191)

“Blessed be He Who has placed in the heaven big stars, and has placed therein a great lamp (sun), and a moon giving light. Allah, the Almighty, says: (Blessed be He Who has placed in the heaven big stars, and has placed therein a great lamp (sun), and a moon giving light.” (Al-Furqan: 61)

“And We have made (therein) a shining lamp (sun)” (An-Naba': 13)

Great Muslim Scholars never differentiated the study of Science and Religion because they saw these as a continuous spectrum of knowledge that brought one closer to Allah swt. Al Farabi (astronomy) Al Jazari (Engineering). Ibu Sina (medicine), Al Khawarizmi (mathematics), Al Farabi (Social Psychology & consciousness), Al Biruni (reaction time), Al Kindi (Chemistry, Environmental Science), Ibn Khaldun (Historian and Chemist), Al Mawardi (Economist) are just a few examples of a galaxy of top ranked Muslim Scholars and Scientists who contributed to the development of the golden age of Islamic Civilisation.

4.0 ROLE OF SCIENCE IN THE PRESERVATION OF MAQASID SHARIAH

Today the world is beset by many problems primarily due to man's insatiable greed. In part, this is due to rapid advances in technology and high standards of living in the developed world that had no consideration for the environment. Global warming is an issue that threatens the lives of mankind everywhere. Due to uncontrolled burning of fossil fuels, the greenhouse effect of carbon dioxide (CO₂) emissions have made the world an increasingly warmer place causing melting of polar ice caps, rising sea levels and changing temperatures (3). Hurricanes, El Nino, earth quakes and Tsunamis have struck many parts of the world causing widespread loss of lives (threat to nafs and mal). If nothing is done to arrest these trends, the world will witness extinction of the living beings from animals, fish, flora and eventually all of mankind who depend on these resources to survive. How do we overcome these to save the world from an untimely end is a worldwide Research and Development effort.

The materialistic society formed by modernisation has resulted in growing social problems such as crimes, murders, rapes, adultery, divorces, suicides, family unit breakdowns and juvenile delinquencies. This is because modern society place great emphasis on individualism and privacy so people become more selfish rather than sacrificing one's interest before the community. These pose dangers to preservation of deen, nafs, nasab and mal. As the social authorities are beset by these ever growing problems, they are crying out for answers and solutions which need in depth study and research.

The earth's natural resources are also being depleted at an increasing rate due to consumerism. 20 percent of the world's population consume 80 percent of its resources.

There is global inequality. It is estimated that if everybody were to consume at the present rate equally, then someone calculated we would need to find 6 earth size planets to provide the raw materials for the people to consume - an impossible task even to imagine (The Guardian, 2002). Overconsumption poses dangers to mal or property.

So we need to reduce consumption to a sustainable level, recycle more, find new processes, materials and design technology that will replace the practice of producing products for consumption without regard to the depletion of natural resources. Materials technology and more efficient process delivery design need urgent attention as part of the means to find alternatives materials as well as helping to raise standards of living and reduce inequality.

Diseases such as HIV Aids, Corona Virus, SARS and Ebola poses unparalleled threat to human lives, firstly due to their lethal and fatal consequences and the fact that globalisation makes them so easy to spread from one continent to another. If nothing concrete is done, they could wipe out the entire population of the world in a short time. These diseases poses dangers to preservation of the nafs. Therefore there is a need for R&D in order to combat and contain these diseases and to develop vaccines that can save the lives of those infected with them. Islam encourages and makes research an obligation by informing mankind that all diseases have a potential cure. In al-Bukhari's and Muslim's collection of [sahih](#) hadith it is said: "There is no disease that Allah has created, except that He also has created its treatment." (Bukhari 7-71:582).

Other issues that have emerged due to advances in sciences have posed serious issues to religious scholars. These include blood transfusions in order to save lives. Others include transplants of organs from dead persons to living ones. Organs include cornea, heart, kidney, liver and other parts. It is now possible in certain cases to save babies from the wombs of their dead mothers. A major breakthrough in helping childless couples was the development of in-vitro fertilisation. Should life support systems of clinically brain dead patients kept alive by artificial respirators be allowed to be switched off? Application of maqasid syariah principles allow for these practices in certain conditions. However trade in organs for example is forbidden as this practice goes against the spirit of maqasid.

In economy, issues of internet shopping and banking, use of credit cards, loans etc have been discussed by religious scholars who have been asked about their permissibility for Muslims and subject to certain restrictions, these practices are now allowed to be practiced by Muslims in the nation's economy.

5.0 CONCLUSION

Maqasid Shariah protects human life and ensures human dignity, equality, justice and peace on this earth. This is absolutely crucial in order than man can serve his role as the vicegerent Allah on this earth. It is a comprehensive framework and holistic as well as each element in the framework complementing the others in a unified order. As mankind evolves, new challenges are faced; some due to his own failings and weaknesses and others posed by a rapidly changing and challenging environment due to globalisation.

Maqasid syariah in other words define what needs to be safeguarded. It is an answer as to "what?" it is to protect. It does not prescribe an answer. Science on the other hand is the "how?" part of the answer. In other words it answers how these maqasid can be protected via

the creation of products and services through logical reasoning, hypothesis, experimentation and analysis. Although maqasid is an unchanging framework applicable at all times and ages, it is science that produces the answers to meet the maqasid by relating these objectives to within the context and needs of the times. Hence Science serves as an instrument to serve the needs of maqasid Sharia. Also it must be noted that different times or circumstances may call for different solutions to meet the same ends. In other words what was suitable and fitting for a particular generation or condition may not necessarily be suitable or fitting for another occasion or generation. As mankind evolves, it faces new issues and challenges that needs to be resolved. The ruling or qawaid of fiqh “taghyirul ahkam bi taghyirul azman wa makan wa ahwal – changes of rulings occur in line with the changes of era, place and circumstances (5). This maintains the dynamic nature of Islam in line with the changing needs of the times and the maqasid is an unchanging principle that steers and guides all acts and activities remain in line with the worship of Allah Taala.

REFERENCES

- (1) Abdul Karim Zaidan. (1990). al-Madkhal li Dirasati al-Shariah al-Islamiyyah. Beirut: Muassasah al-Risalah
- (2) Mohamad Akram Laldin, (2014). The Shariah Objectives (maqasid) in Contemporary Science
- (3) <http://www.globalissues.org/article/233/climate-change-and-global-warming-introduction#WhatIsGlobalWarmingandClimateChange>
- (4) <http://www.theguardian.com/uk/2002/jul/07/research.waste>
- (5) <http://www.al-ahkam.net/home/content/sj-2780-apakah-fiqh-al-waqie-fiqh-berdasarkan-realiti>

ISLAMIC REFLECTION IN TEACHING AND LEARNING PHYSICS

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ABSTRACT

Teaching and learning physics without spirituality is lifeless and can drive materialistic motivations. In giving it life Muslims must teach physics from the Islamic worldview. The attributes of the Creator must be emphasised in the learning environment and students be made aware of the fact that the physical world around them is the second form of revelation. Reading these signs and connecting to the revelation of Quran creates the necessary awareness of Allah SWT. This paper discusses tools in Islamic reflection derived from ideas and theories in Islamic psychology that can be adopted in physics education.

Keywords: Physics, teaching and learning; islamic education; islamic reflection; islamic psychology

1.0 INTRODUCTION

Verily in the creation of the heavens and the earth, and in the alternation of night and day, there are indeed signs for men of understanding. Those who remember Allah standing, sitting and lying down on their sides and thinking deeply about the creation of the heavens and earth, (saying), 'Our lord! You have not created (all) this without purpose, Glory to You!. Give us salvation from the torment of the fire. [Ali-Imran 3:191]

Islamic reflection in this paper refers to the meaning of *tafakkur* in Arabic and is a form of worship that is highly rewarded by Allah swt. In the verse above, Allah swt calls us to reflect or think deeply upon His creations so we can know Him, glorify Him and love Him. It is an act which is necessary and central to our faith. In reflecting the creations of Allah three of our senses, eyes, ears and spiritual heart are used. Our senses of perception are the windows to the knowledge of Allah swt.

Signs pointing to the Majesty of Allah are of two kinds. The ayat of Quran and the ayat of creation (the world around us). Everything around us is a sign. The sun and moon, plants and animals, mountains and rivers, wind and rain, the process of breathing, the cycle of life and death are some examples. Thus a sign can be tangible or intangible matter like a process or an event pointing us to the Creator Himself as stated in the verse of the Quran below.

Behold! In the creation of the heavens and the earth; in the alternation of the Night and the Day; in the sailing of the ships through the Ocean for the profit of mankind; in the rain which Allah sends down from the skies, and the life which He gives therewith to an earth that is dead; in the beasts of all kinds that He scatters through the earth; in the change of the winds, and the clouds which they trail like their slaves between the sky and the earth; (here) indeed are signs (AYAT) for a people that are wise....[Al-Baqara - 2:164-165]

Both kinds of signs are reminders of Allah. The ayat in the Quran reminds us of the ayat in the world around us and the ayat around us are supposed to remind us of the ayat in the Quran. The Quran feeds the *Ruh*, directing us to look at the world around us in a different light where everything becomes a reminder to the miraculous signs of our Creator. We start seeing with our hearts and continuously thinking about Allah. Continuous remembrance of Allah swt increases our *iman insyaallah*.

However, this process is not easy. We have to train ourselves to reflect upon the ayat of creation and connect it to the ayat of revelation. The more knowledge we have in these two kinds of ayat, the easier it is to reflect and connect them. An easy example would be if a believer sees dried wilting plants come alive after the rain, he is reminded of the resurrection. How Allah brings out new life to plants from the earth is similar to how we will be raised on the day of resurrection. A non-believer would see the plant and is completely heedless of the reminder given by the plant. A scientist believer who understands the process taking place in the growth of the plant marvels at the miraculous nature of the plant. It makes its own food, bear fruits and provide food to other creations. He further reflects that Allah swt could have created just a few species of plant for the same purpose but instead He blesses us with various species of plants in varieties of colours, shapes and sizes for our enjoyment. Subhanallah. Allah says in the Quran:

It is He who sends down water (rain) from the sky, and with it We produce vegetation of all kinds, from some We produce green (crops), out of which We produce grain, heaped up (at harvest); out of the date-palm and its sheaths (or spathes) (come) clusters of dates hanging low and near: and (then there are) gardens of grapes, and olives, and pomegranates each similar (in kind) yet different (in variety): when they begin to bear fruit, feast your eyes with

the fruit and the ripeness thereof. Behold! in these things there are signs for people who believe. [Al-Anaam - 6:99]

Physics is a study of matter, energy and their interaction. Knowledge of physics or any other discipline detailing the signs of Allah doesn't necessarily take one beyond the superficial aspect of reality, or transport one from the wonders of creation to the Creator. Only a believer scientist crosses this boundary of wonder of creations to the awe of the Creator. What moves the heart of a believer is that he knows Allah the Creator is Al-Khaliq. A believer knows the secrets he learns the details of natural laws which is the Divine laws that govern Allah's creations.

Allah says of heedless people:

We have created many jinn and people who are destined for Hell, with hearts they do not use for comprehension, eyes they do not use for sight, ears they do not use for hearing. They are like cattle, no, even further astray: these are the ones who are entirely heedless. [Al-A'raf-7:179]

May Allah make us use our intellect to gain knowledge and to reflect on His creations and not make us among those who are heedless.

The next sections discuss reflection from the perspective of islamic psychology advanced by Malik Badri in his book "Contemplation – An Islamic Psychospiritual Study" (2000) and the impact of cognitive thinking on the heart and mind of a person is highlighted. Ideas, techniques and theories is discussed and tools for reflection in physics is presented.

2.0 MATERIALS AND METHODOLOGY

2.1 The impact of cognitive thinking on the heart and mind of a person

Badri (2000) mentions that the study of islamic reflection from the psychological point of view necessarily deals with the conscious inner cognitive thought and feelings of people. And he says that according to Joseph Pearce (1992) when we are in deep spiritual contemplation, we are drawing from our spiritual universal heart, which in turn influences our physical heart that communicates with our brain and influences our cognitive activities. This is in some respects similar to the view of Imam Ghazali in his *Ihya Ulum al-Din* in which he clearly states that although the spiritual heart (qalb) which is the controlling centre of the soul is different from the physical human heart, its functioning is related and directed by it.

Further Badri relates that cognitive psychologists claim that complex responses that influence people's ideas, beliefs, voluntary decisions and observable complex behaviours come from previous conceptualizations, emotions and experiences which give meaning to subsequent environmental stimuli. In other words, it is what people think affects their beliefs, feelings and consequent behaviour. If their thinking is centred on the creation and bounties of Allah swt, their faith will increase and their deeds and behaviour will improve. Similarly if, their thinking is centred on their pleasures and desires, they will be distracted from their religion and their behaviour will degenerate. If their thinking is about their fears, frustrations, failures and consequent pessimism, they will be afflicted by reactive depression and other psychological disorders.

Badri mentions that the cognitive psychologists have shown that every intentional activity performed by the individual is preceded by an internal cognitive activity. They have also

proved that the human mind never stops its cognitive activity at any moment of the day or night, whether the individual is aware of it or not. Therefore it is the internal cognitive activity of a human being whether conscious or unconscious, that directs observable human behaviour. This cognitive perspective of human behaviour is in line with Islam in that reflection as an internal thought process is the backbone of faith in which it is the source of every good deed. Furthermore, when the cognitive activity gains strength, it can become an incentive for action. If the individual performs this motivated action repeatedly, then this internal ideas can easily and spontaneously make it become a rooted habit.

Badri further elaborates that Imam Ghazali insists in his book *Al-Hikmah fi Makhlūqat Allah* that contemplation is key to every good deeds because it qualifies all cognitive actions of the believer with the remembrance of Allah and the recognition of His favours and grace. Clearly reflection covers the intellectual, emotional, temperamental and perceptive aspects of the believer which are all the psychological, cognitive and spiritual actions. Thus a believer who remembers Allah will reflect His creations and one who reflects His creations should remember Allah. Thus the cognitive process involved in Islamic reflection makes a reflective person is in constant remembrance of Allah swt and so can purify a believer's soul and elevate his level of faith.

With faith as the driving force of reflection, a believer reflects upon the signs written clearly in the perfection of planning, function and form of all Allah's creations. He devotes his internal cognitive and spiritual aspirations to the reflection of Allah's Majesty and Perfection, achieving the objective of reflection in Islam in which is to gain a deep insightful knowledge of Allah as the Creator, Sustainer and Provider of the universe. In addition, he certainly develops the sentiment of awe and love of Allah and the refined feelings of contentment, happiness and tranquil of the fact that there is Ar-Rahman, the Ever Merciful taking care of him.

2.2 Tools in Islamic reflection

Four stages of reflection are outlined in Badri's book. The first three stages are interconnected leading to the final fourth stage. Stage one is when knowledge of the reflective object is through direct senses which are seeing, hearing, touching, smelling and tasting, or indirect sense as in imagining. Such information is purely mental and often non-emotional.

The second stage is when one takes a closer look at the object, inspecting its aesthetic aspects and particular qualities. It is a shift from mere perception to a state of wonder at the beauty, excellence, vastness of structure, and miraculous appearance of the object. It is a stage of fine appreciation, delicate feeling and powerful passion.

The third stage is achieved when one crosses the boundary between the created object of wonder to the creator of the object of wonder. One is then carried away by the feelings of submission to the Creator of the object and the feeling of appreciation of the Creator Who has gifted one with the object and everything else in the universe. One comes to the realization that there is nothing in existence save Allah and what He has originated.

When this refined reflection is repeated and reinforced with continual remembrance of the Almighty Allah, it leads a believer to the fourth stage. This stage is the spiritual cognition

where spiritual feelings associated with deep reflection become part of the believer's nature making him more loving and fearful towards Allah swt.

The first and second stages can be enjoyed by believers and non-believers alike. The beauty in form and structure can be appreciated by both. However the third stage can only be reached by a believer who relates the beauty of the universe to its Creator. A believer who reaches the fourth stage sees precision, beauty, mercy and wisdom in all creations in the world. He becomes more appreciative and humble and sees that everything in existence is in the hands of Allah swt. This vast universe is nothing but a place of worship to which only believers can access. These feelings of bewilderment are inherent in man so they can look at the heavens and the earth for guidance toward their Rabb and can worship Him in total submission.

The depth of reflection varies according to the individual. Badri in his book discusses nine factors that influence the depth of reflection. The first and foremost factor depends on a person's level of faith. His closeness to Allah swt determines his ease of reflection. Thus it is easier for him to invoke the feelings of appreciation and love of the Creator. The next factor is the personality and his ability to concentrate over a length of time. Research has shown that introverts are better able to concentrate longer compared to extrovert. The third factor is one's emotional and mental state. Indeed reflection requires peace of mind and sound intellect. The environmental factor is the fourth factor. A more conducive environment for reflection would make a person reflect better. Badri gives the example of a muslim man who works in the country with all comforts provided to him and has a wife who teaches Quran classes would be in a better position to reflect compared to a person working long hours in the city having a hectic life to fulfil daily requirements. The fifth factor is the influence of culture or upbringing. If throughout his life he is exposed to appreciate nature, he would reflect better than a person who has been exposed to appreciate material and superficial things. An expert in the field of the object of reflection knows the details of the subject. He can appreciate and think deeper than a layman reflecting on the same object. Thus the factor of knowledge of the object of reflection is the sixth. The influence of good example and companionship cannot be overemphasized. This makes the seventh factor affecting the depth of reflection. The eighth and final factors are the nature and familiarity of the object of reflection. It is easier to reflect upon what is obvious such as the beauty and grandeur of night sky than to reflect upon the process of digestion. However sometimes over familiarity of the object of reflection hinders one's reflection. A person may rarely look up at the night sky and reflect but he can get so overwhelmed by the ocean when he goes on holiday. Therefore the greater the familiarity with our surrounding, the heavier the veil over our vision and awareness is. We fail to observe and remember important things.

The tools of reflection discussed above can be applied in teaching and learning physics. Both students and teacher benefit from reflection. Knowledge of the subject matter increases in tandem with the knowledge of Allah swt. The practice of deep reflection is continuously improved with every lesson until it becomes habitual. Eventually spiritual reflection is inculcated both in students and teacher insyaAllah.

3.0 RESULTS AND DISCUSSION

3.1 Execution of islamic reflection within a physics lesson

Figure 1 shows a framework, ‘*Connecting to Islam*’ discussed by Roselainy Abdul Rahman et al (2014) which identifies which Islamic components should be integrated into lessons so as to support instruction and students’ learning. Here it is clearly seen that islamic reflection in teaching and learning of physics is a component under *tadabbur alam wonders of the creation*.

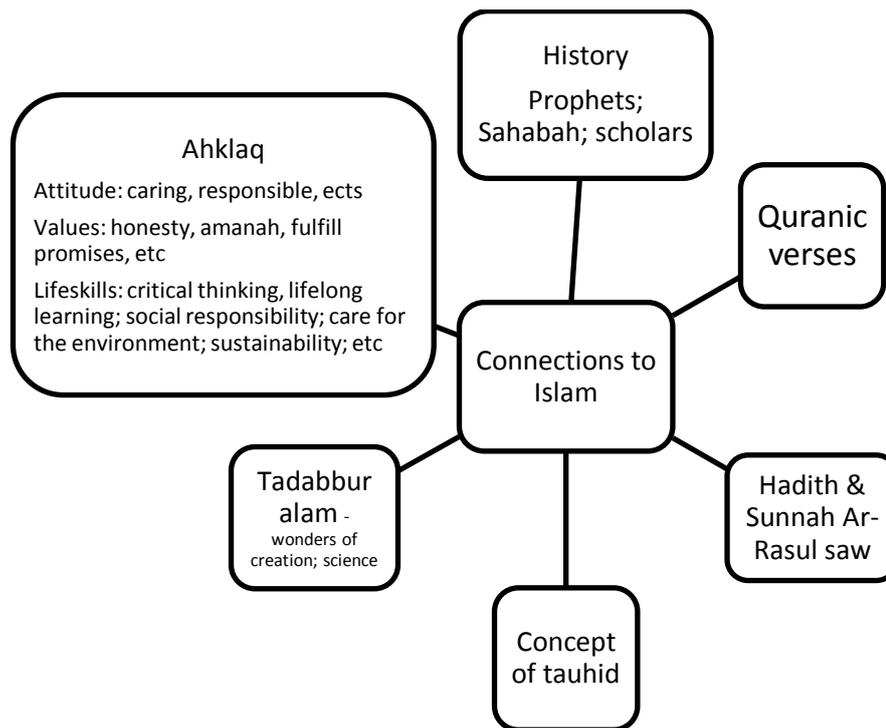


Figure 1 Framework of the ‘*Connecting to Islam*’

In preparation of a lesson, the teacher may consider the following steps. Choose a topic in Physics to be taught. Prepare the lesson plan with reflection. Reflect upon the object of study in both the physical and spiritual sense. Think deeply and make the connection between both aspects of reflection. Outside the classroom, both students and teacher continue reflecting by actually looking at the object of reflection resulting in continuous remembrance of Allah. An example of a lesson on light for first year undergraduate is given.

What is light? Light is a type of transverse, electromagnetic wave that can be seen by humans. It behaves both like a particle and like a wave. This is commonly termed as wave particle duality of light. Like all electromagnetic waves, light can travel through a vacuum with the speed of light! The transverse nature of light can be demonstrated through polarization. Within this short introduction to light, reflection can be initiated. Light from the sun which is millions of kilometres away is able to reach us in eight minutes without being slowed down by any matter. It enables us to see, plants to make food, oceans to warm up creating the ocean circulation so marine animals can live and thrive.

How is light behaving like a particle or a wave? It exhibits the phenomena of reflection, refraction, diffraction, scattering and polarization. The concept is elaborated and we can go on reflecting on its particle-wave behaviour and the wisdom behind these behaviour. The lesson continues with further reflection until the end. Verses of Quran and sayings of the prophet are included in the reflection where appropriate.

With practise in coming lessons and with perseverance, deeper and more meaningful reflections are achievable and the process will become easier insyaAllah.

4.0 CONCLUSION

In conclusion, islamic reflection in physics should be reintroduced in education and in research as were the tradition of previous scholars. They were spiritually motivated and driven and they achieved great heights and created the islamic civilisation that we repeatedly and proudly recount but sadly lost. *“He who remembers his lord and he who doesn’t remember his lord are like the living and the dead” Hadith narrated by Bukhari in Riyadhussaliheen’s The book of Remembrance.*

REFERENCES

- Badri, Malik. 2000. Contemplation – An Islamic Psychospiritual Study. IIT, London.
- AbdulRahman, Roselainy, et al. 2014. A Framework for Designing Classroom Instruction and Activities for Teaching and Learning Supporting Enhanced Islamic Awareness. IOICIE 2014, Kuala Lumpur
- Al-Oadah, Salman. 2011. In The Company of God. IslamToday.
- Al-Qoz, Abdul-Hameed. 2000. Men and Universe – Reflections of Ibn Al-Qayyem. Darussalam, Riyadh.
- Ilyas, Mohammad. 2002. The Unity of Science and Religion. A.S Noordeen, Kuala Lumpur.
- Muhammad Mumtaz Ali. 2009. The Philosophy of Science – Western and islamis perspectives on certain aspects. Thinkers Library Sdn Bhd, Kuala Lumpur.

A FRAMEWORK FOR DESIGNING CLASSROOM INSTRUCTION AND ACTIVITIES FOR TEACHING AND LEARNING SUPPORTING ENHANCED ISLAMIC AWARENESS

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ABSTRACT

Islam has always valued the importance of education and an integral concept in the education of man is the need for mankind to harness their human potential and then to utilize all means in subservience to the values in the Qur'an for the benefit of all. However, the existing educational conditions in many Muslim countries do not truly reflect the Islamic ideal, and thus education has not been able to play its rightful role in strengthening the faith, thought and conduct of the younger generation, promote the advancement and application of knowledge for the nations' development. There still exists a dichotomy in the educational system in most of the Muslim world whereby religious education is taught separately and usually without any connection to secular education. Such compartmentalization is "contrary to the true Islamic concept of education and ade it impossible for the products of either system to represent Islam as a comprehensive and integrated vision of life." The aims of education in Islam are to support the balanced growth of the total personality of man in all its aspects: "spiritual, intellectual, imaginative, physical, scientific, linguistic, both individually and collectively and motivate all aspects towards goodness and the attainment of perfection. The ultimate aim of Muslim education lies in the realization of complete submission to Allah on the level of the individual, the community and humanity at large."

Keywords: classroom instruction, enhanced islamic awareness, teaching and learning,

1.0 INTRODUCTION

Islam has always valued the importance of education and an integral concept in the education of man is the need for mankind to harness their human potential and then to utilize all means in subservience to the values in the Qur'an for the benefit of all. However, the existing educational conditions in many Muslim countries do not truly reflect the Islamic ideal, and thus education has not been able to play its rightful role in strengthening the faith, thought and conduct of the younger generation, promote the advancement and application of knowledge for the nations' development. There still exists a dichotomy in the educational system in most of the Muslim world whereby religious education is taught separately and usually without any connection to secular education. Such compartmentalization is "contrary to the true Islamic concept of education and ade it impossible for the products of either system to represent Islam as a comprehensive and integrated vision of life" (Adebayo, 2007). The aims of education in Islam are to support the balanced growth of the total personality of man in all its aspects: "spiritual, intellectual, imaginative, physical, scientific, linguistic, both individually and collectively and motivate all aspects towards goodness and the attainment of perfection. The ultimate aim of Muslim education lies in the realization of complete submission to Allah on the level of the individual, the community and humanity at large" (Ashraf, 1985). In terms of reformation, there has been a series of World Conference on Muslim Education which started in 1977 and provoke a considerable efforts among Muslim intellectuals and academia to carry out the process of the 'Islamization of Knowledge', and continuously seek its improvement. Islamization of knowledge is an on-going process so as to ensure, "methodological schemes that may enable Muslims to see through, and practically overcome, long standing confusion, without losing their religious and cultural authenticity, nor depriving themselves of whatever is good and useful from other intellectual and cultural sources" (Wan Mohd Nor, 1998).

In this paper, we want to share a framework of designing classroom instruction and activities that educators can use to enrich lessons and making connections to enhancing students' awareness of Islamic values and practice. We used various frameworks and theories that were put together to guide the design of our teaching materials, class activities and tasks. Firstly, we introduce a framework, named the 'Three Onlys' (Mason & Johnston-Wilder, 2004; see Figure 1; see also Gattegno (1977)), which connected three components of the psyche of human beings; the behavioral (enactive), emotional (affective) and awareness (cognitive or intellectual) components as three interwoven strands. Behavior is how people manifest their awareness and their intellect in the material world; intellect and awareness is what guides and directs that behavior; behavior is fuelled by the energy coming from and feeding emotions.

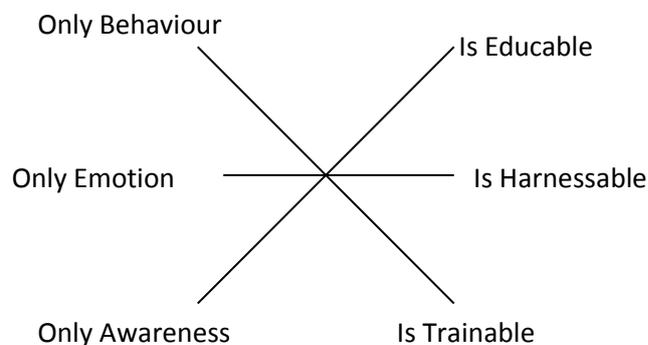


Figure 1 Behavior – Emotion – Awareness Framework (*Three Onlys*)

The *Three Onlys* allow us to consider the students as a whole person and view their personal growth as integrated within their pursuit of knowledge. Paying attention to behavior meant that we had to focus on the outcomes that will support the healthy Islamic development of a student as well as particular outcomes of each academic topic being taught as well as addressed possible difficulties that students might face in both areas. Our prognosis was based on our own experience and concerns in supporting students to be better Muslims as well as documented findings on students' difficulties in the topics that we taught. Paying attention to emotions meant that we needed to gauge our students' motivation and emotional situations during our lessons. It is important to strengthen students' awareness and widen their knowledge on their heritage of Islamic contributions to the development of the Sciences and how to use this knowledge to increase their relationship with, and worship of Allah. Lastly, paying attention to awareness led us to asking what associations come to mind when we studied the topic and consequently what would be useful for students to have come to mind. Thus, by using this framework, a more holistic deliberation was required in preparing to teach in the classroom, i.e., taking into account students' behavioral outcomes, their emotional development as well as how to increase their awareness of their own abilities. Answers to such questions will constitute our version of the topic and how it connects to Islam by choosing such components from Framework 3. Every time a topic is taught, we can look out for unusual responses from learners and takes note of these. They might arise in relation to students' responses in terms of their understanding of the concepts; the terminologies used and other aspects of the language they need to develop in learning the topics; the associations and connections to Islam and how their knowledge would guide their intended behavior; things said or done that show a student to be in the midst of sorting things out but not yet having a clear understanding; phrases or mnemonics that we or the learners use to guide the application of a technique; unusual contexts in which the techniques are applicable or the ideas are useful or new situations that might give rise to a need to learn about the topic. When we prepare to teach the topic again, a collection of such notes is more likely to be helpful in alerting us to important issues that could help in making up a lesson plan specific to a particular class. A succinct way to display the three categories of questions outlined above is as three interwoven axes, which make up the framework that was called the '*structure of a topic*' (Mason & Jonston-Wilder, 2004; see Figure 2). The horizontal axis relates to emotional factors, the behaviour axis runs from top left to bottom right, the awareness axis runs from bottom left to top right.

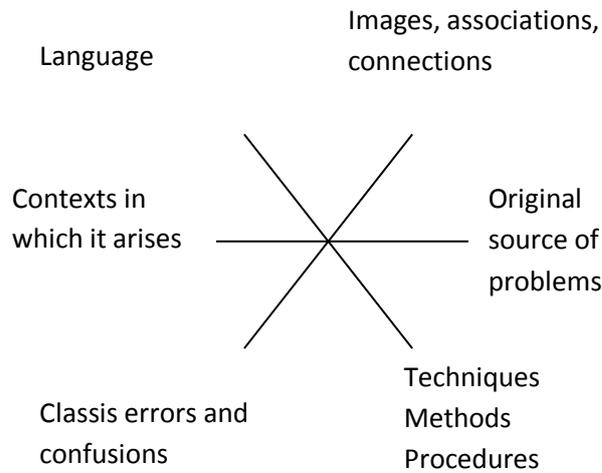


Figure 2 Framework of the ‘Structure of a Topic’

The third framework, ‘Connecting to Islam’ (see Figure 3) identifies which Islamic components can be integrated into the lessons so as to support instruction and students’ learning; these can help educators decide how to make connections to Islamic teachings and values. Here, we have identified some components that could be infused into the various topics. Additional connections can be included as appropriate.

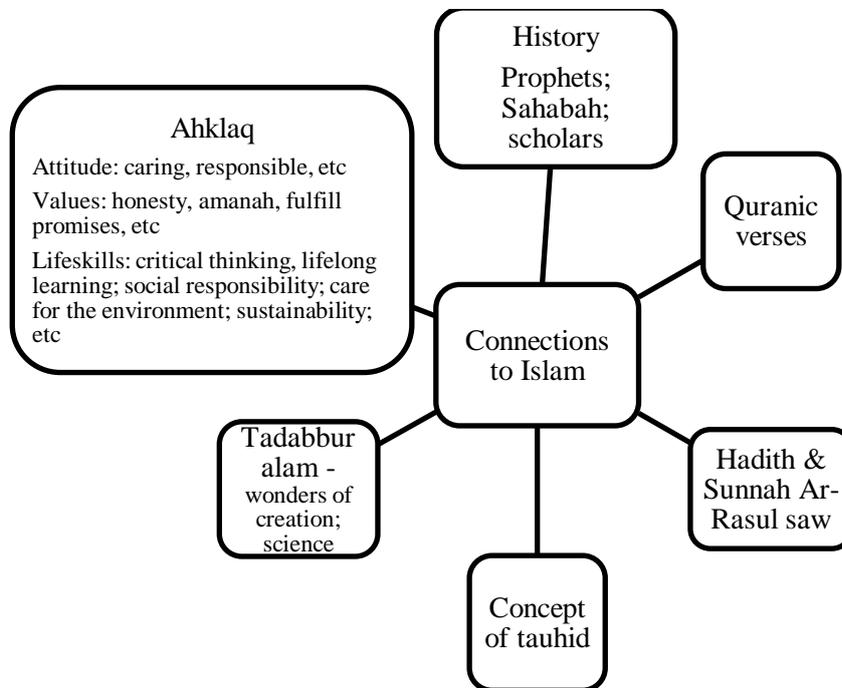


Figure 3 Framework of the ‘Connecting to Islam’

However, in order to put the different component together so as to design the instruction and activities, we use the following Table 1 that shows the relationship between each strands of

the ‘*Three Onlys*’, ‘*Structure of a Topic*’ and ‘*Connecting to Islam*’. Several questions are used to guide the preparation of instruction and activities. Answers to these questions may be partly based on personal experiences and the usefulness of an individual question will vary from concept to concept. However, discussions with other educators can help in the development of answers for the various questions.

Table 1: Preparing for lessons

Topics to be taught	Framework <i>Three Onlys</i>	Guiding questions <i>‘Structure of a Topic’</i>	Components chosen <i>‘Connecting to Islam’</i>
Topic A	Emotion Context and origins Motivation, affect, feelings;	In what context does this topic arise; why is it useful? What problems do they help resolve?	Which components can enhance motivation? Engage students’ feelings?
	Awareness Associations & Connections; Images; Mistakes	What images come to mind? What pictures? What are the classic mistakes students make?	Which component enhances students’ awareness of Allah’s bounty and mercy? Brings them closer to Allah?
	Behavior Language; Techniques;	What special vocabulary is involved? What are the techniques? What aspects am I uncertain about?	Which aspects of obedience, ibadah and akhlaq should students try to practice?

Thus, for a particular topic, we have to identify the images associated with the topic and its connections with other topics in the syllabus. We also have to identify what awareness were already possessed by our students and how to encourage them to display or share these thoughts, and how we can make use of in the teaching of the topic. In addition, we have to know some of the standard difficulties students have with the topic which were based on our own experience as well as documented findings in research on students’ learning at tertiary levels.

2. CONCLUSION

Using Framework 1 and 2 in working out how to teach using an awareness of the different structures in a topic gave us the freedom to choose where to start, how to develop a topic, and what kinds of tasks to set. More importantly, we should share with students how to determine the structure of a topic and how to make connections to Islam, we will be encouraging students to develop their own independent learning behavior and support contemplation about what it means to be a Muslim, the wonders of Allah’s creations as well as how to explore and study the Quran, Hadith and history of our Islamic heritage whether in the lives of the prophets, the sahabah, tab’iin, past and contemporary scholars. However, in order for

educators to do this requires that we have the facility and familiarity with all the different aspects.

REFERENCES

- Adebayo, R. I. (2007), The Influence of the world conferences on Muslim education on Islamic education in Nigeria, *Islamic Studies in Contemporary Nigeria, Problems & Prospects* retrieved on Sept 28, 2014 from <http://www.unilorin.edu.ng/publications/adebayori/The%20Influence%20of%20wold%20conference.htm>
- Ashraf, S.A. (1985), *New horizons in Muslim education*. Cambridge: Hodder and Stoughton
- Gattegno, C. (1977). *The Science of Education*. New York: Educational Solutions.
- Mason, J. H. & Johnston-Wilder, S. (2004). *Fundamental Constructs in Mathematics Education*, Routledge Falmer, London.
- Wan Mohd Nor Wan Daud (1998), *Educational Philosophy and Practice of Syed Muhammad Naquib al-Attas: An Exposition of the Original Concept of Islamisation*, Kuala Lumpur, ISTAC

STRATEGIES TO INVOKE STUDENTS' USE OF MATHEMATICAL THINKING POWERS IN ENGINEERING MATHEMATICS

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ABSTRACT

We have been teaching mathematics to engineering undergraduates and our experience has shown that, it was not easy to directly link the topics being taught to the wonders of creation of Allah. In addition, students had certain difficulties with the topics being taught. In general, although our students have demonstrated the ability to answer standard or routine questions, there were still some inconsistencies between their ability to answer questions and their understanding of the concepts and the mathematical procedures that they were using (Mohammad Yusof & Abdul Rahman, 2001). However, using the three frameworks we have brought together, we identified certain components as to make the connection to Islam. In particular, we highlighted the importance of mathematical thinking to be integrated in the teaching and learning of tertiary mathematics. In this presentation, will share how we change our teaching practice so that we could facilitate the development of our students' ability in understanding the various related mathematical concepts and are able to reconstruct them as parts of a whole. We aimed to support them develop efficient strategies in constructing new knowledge and be empowered with more successful ways of thinking about mathematics. These thinking skills would also benefit the students in various areas of their life. Here, we will share our experience in translating some of the theories into classroom practice and how we being aware of our own personal theory would enhance our preparations of instructions and activities in the classroom.

Keywords: mathematical thinking, engineering mathematics, thinking power

1.0 INTRODUCTION

In this paper, we will be discussing several issues that emerge when we decided to change the way we taught engineering mathematics at the undergraduate level. Our experience in teaching has always been focused on supporting and enhancing students' understanding of mathematics. However, we felt strongly that we should also contribute to the wholesome development of students' characters especially our Muslim students in terms of their awareness of their roles in life as *khalifatul fil ard*. We found that our passion for Mathematics has supported us to develop more flexible thinking, critical and analytical skills. Our dilemma has been how to connect the mathematics taught directly to Islam. We found that this was not always easy as we were teaching engineering mathematics and direct connections were not always found. However, we have found that although our students have some typical difficulties, they have also shown that they have potential capabilities that they could develop. For example, our students have demonstrated the ability to answer standard or routine questions but there were still some inconsistencies between their ability to answer questions and their understanding of the concepts and the mathematical procedures that they were using (Mohammad Yusof & Abdul Rahman, 2001). We also encountered students who found non-routine questions and problem solving difficult. We realised that a more empowering approach is to support students' development of their own thinking and problem solving skills as well as more independent learning skills. In terms of connecting the course to Islam, there are various components that can be linked but we will focus on the importance of promoting teaching that explicitly supports the skills of thinking and the strategies that we have chosen.

2.0 THINKING AND MUSLIMS

In Arabic, *to think* = *fakkar* فَكَرَ - *yufakkir* يَفْكَرُ, and in the Quran, the root of the word *TAFAKKUR* is *F-K-R*. This root appears in the Quran about 18 times. It has the following meanings: *to think upon, consider or examine a thing; to consider a thing in order to obtain a clear knowledge of it; to employ one's mind, thought or mental consideration upon something; to reflect, think on, ponder over; to consider, contemplate, ponder with care, attention and endeavor, and lastly, arranging of known things (in the mind) in order to attain (the knowledge of) unknown (thing)*.

Thus, thinking in its various facets, are strongly encouraged and required for Muslims to examine, contemplate and strengthen man's worship of Allah. Some of the Quranic verses that describe the importance of thinking, contemplation and reflection are:

*“Verily, in the creation of the heaven and the earth, and in the alteration of night and day, there are indeed signs for men of understanding-those who remember (the Guidance of) Allah standing, sitting and lying down on their sides, and **think & reflect** about the creation of the heavens and the earth...”* [Aali Imran, 3:190-191]

*“And it is He who spread out the earth, and set thereon mountains standing firm and (flowing) rivers: and fruit of every kind He made in pairs, two and two: He draws the night as a veil over the Day. Behold, verily in these things there are Ayaat (proofs, evidences, lessons, signs, etc.) for those who **think & reflect!**”* [Ar-Rad, 13:3]

It is most unfortunate that, especially in Mathematics, our students have been more accustomed to learning by rote, drill and practice. We found that it was not easy to change their preferences in learning mathematics although there were students who found our

strategies very helpful (Roselainy, 2009). We had identified the mathematical skills that we thought our students needed to become independent learners, particularly, the ability to think flexibly. They should also have the ability to work out and reconstruct ideas from a few examples and be able to reconstruct techniques from a few core ideas. We felt that they should be able to solve non-routine problems or at least make logical and reasonable attempts at solving such problems. However, in changing the way we teach, we realized we had to address firstly, their existing needs, and secondly, on how to ensure their progress through the curriculum. We also needed the students to consider new learning behavior and thus we integrated strategies to encourage students to adopt self-regulated learning behavior.

3.0 ISSUE

In the following sections, we will outline various issues that we had to deal with in changing our teaching practice that arose from our own reflections and concerns that the students' had expressed about the teaching and learning situations.

Issue 1: Beliefs and attitudes about Mathematics

Findings from research (Mohd. Yusof & Tall, 1994; Yudariah, 1995), showed that our students perceived mathematics as a subject wholly consisting of a conglomeration of facts and procedures. It was also reported that students with a poor track record in mathematics achievements in the past were over anxious when exposed to new problems and concepts. They would give up easily when faced with difficulties and showed great reluctance in persevering with new ideas and techniques. There was significant belief amongst the students that '*drill & practice*' was the most successful way to master mathematics. So, not surprisingly, many showed resistance in adapting their learning styles and adopting suitable mathematical learning skills more appropriate for learning advanced mathematics. Consequently, they showed some resistance when teaching approaches that required their participation were carried out. In a survey by Khyasudeen et al (1995), 70% of the student respondents claimed to have high motivation towards their learning. However, this was not reflected in their learning behaviour. Responses from the section on study habits showed that they had poor class attendance, did not have complete lecture notes, and did not often participate in class or peer group discussion. Many could not see how the mathematics was relevant to the workplace, let alone how the study of mathematics would help them in strengthening their faith and religious practice in their daily lives. On the other hand, we saw Mathematics as a subject could enhance thinking and problem solving skills, which although presented in such a way to support mathematical learning, would also benefit their ability to think, reflect and solve problems in other areas of their lives. Yudariah Mohd Yusof (1995) found that students' ability to solve problems can be enhanced through special sessions that taught them mathematical problem solving skills. However, their ability diminished over time if not further supported.

We realized that as teachers, we were concerned about our students' ability to cope with more advanced mathematics but our students were concerned with being successful in examinations. We felt that students needed to develop their understanding and skills in making sense of new mathematical knowledge but they only wanted to be able to be more competent in using mathematical techniques used in the tests and examination questions! Clearly, we had to address the students' concerns and at the same time, ensure their progress through the curriculum. How could we convince students that they needed to change the way

they worked with the mathematics? This compelled us to find teaching methods that would maintain a balance between helping students overcome their difficulties, at the same time develop their understanding and skills in making sense of new mathematical knowledge, and enhance their competency in handling mathematical techniques according to the demands of the curriculum as well become more aware of these skills so as to be able to transfer these skills to other areas in their lives.

We were interested in theories that relate to the learning of advanced mathematics, issues that deal with how students learn, how these relate to the instructional design and also we needed to work out how to systematically connect students to Islam. We were not only concerned with developing teaching strategies that would help students overcome their current difficulties but enhances their abilities to cope with more advanced knowledge, become Muslims who are motivated, more aware of their faith and consciously try to improve themselves.

Issue 2: Developing a Mathematical and Islamic Pedagogy to Support our Ideas

We looked at various theories of learning and instruction to find pedagogy that would support changes to our practice. Our teaching approach was designed to engage our students on the three levels of the human psyche: behavior, emotions and awareness. We also wanted to help students develop the ability to understand various related mathematical concepts, learn to reconstruct these concepts as parts of a whole and to make the connections between the parts. We believed that through this approach, we could support students during their struggle with mathematical ideas. Thus, using mathematical thinking was an important feature of our lessons. We based our conception of mathematical thinking on the ideas of Mason, Burton & Stacey (1982) but we also used the description of how low and high achievers managed their mathematical knowledge (Gray & Tall, 1994) to determine our content advancement. We used Skemp's (1993) description of the learning situation to create an environment that would support problem solving. Four processes were identified as central to mathematical thinking, specializing, conjecturing, generalizing and convincing. Specializing is the exploration of meaning by looking at particular cases to make clear some common properties. Conjecturing should naturally follow as a student search for relationships that connects the examples and tries to express and substantiate any underlying patterns. Generalization is the ability to recognize those patterns or regularity and making an attempt in expressing it mathematically. Convincing oneself and then another about the conjecture of the generalization that has been made encourages students to examine their ideas and explicitly communicate it first to themselves and then to others. However, we had to develop our own framework in order to establish connections to Islam.

Issue 3: Framework for designing classroom instruction and activities

We found that Watson & Mason's (1998) ideas on what constituted mathematical thinking powers and mathematical structures were very useful in developing the lesson plans. We used the framework, '*structure a topic*' (Mason & Johnston-Wilder, 2004) and incorporated various '*prompts and questions*' (Watson & Mason, 1998) that could invoke students' use of their own thinking powers. Identifying the thinking processes, for example, specializing and generalizing, ordering and classifying, imagining and expressing, abstracting and instantiating, conjecturing and convincing, were useful in our preparations to provide learning experiences where we could encourage students to use these powers explicitly thus supporting them in recognizing the mathematical processes and structures for themselves. We adapted, modified and created some '*prompts and questions*' (Watson & Mason, 1998) to

draw students' attention to the mathematical processes and structures involved in facilitating their understanding of concepts learnt. The use of the prompts and questions would also enable students to guide their own thinking and used as tools to engage with new problems. We felt that we were able to provide students with a vocabulary to master their own thoughts as well as engage in new ones. However, the complete guide of strategies that were used are listed as follows:

- a) **Structure of a topic:** we developed a topic by focusing on the mathematics that we wanted our students to learn, in particular, to be able to identify the structures in the mathematical concepts (definitions, facts, theorems, properties, techniques, examples, etc) and made explicit the mathematical powers used (specializing, generalizing, conjecturing, characterizing, organizing, reasoning, etc).
- b) **Connecting to Islam:** various components can be used when appropriate, for example, historical contributions of past mathematicians, emphasising the akhlaq of a Muslim towards the pursuit and application of knowledge, and contemplating the wonders of Science.
- c) **Structured examples:** examples have always played an important role in teaching but if used purposefully, they enhanced students' learning. Our approach was to use examples structured in a manner that would lead towards a generality, which we called, 'structured examples'. Students worked on typical examples first, then on generic examples leading towards more general examples. To further strengthen their understanding and knowledge, non-typical examples were also given and they were asked to make up their own examples. We used students' own examples to assess what they attended to in the topics taught and helped in uncovering what they did not understand.
- d) **Students' use of their own thinking powers:** the tasks also encouraged students' use of their own thinking powers. Opportunities for students to explore linkages and connections between mathematical ideas were provided. The tasks allowed students to experience the mathematical thinking activities of specialising and generalising, imagining and anticipating some mathematical relationship, as well as opportunities of expressing mathematical ideas and objects in words, pictures, and symbols. Some opportunities for students to conjecture, reason and work through ideas, were included as an important base for advanced mathematical thinking.
- e) **Using mathematical themes;** prompts and questions: we used mathematical themes such as '*invariance amidst change*', which form the basis for many mathematical theorems and technique; '*doing and undoing*', which can help students identify features or structures that should be the focus of attention. The '*prompts and questions*' that we used were specially constructed to make explicit the internal structures of mathematics and mathematical thinking, focused students' attention to the structures and processes of mathematical thinking, provoked and invoked students' awareness of their own mathematical thinking powers, and provided students with simple vocabulary to generate mathematical discussion. We started by supporting students in specializing and generalizing. Examples of questions used most often at the beginning were: *What is the same?*; *What is different?*; *What can change and what stays the same?*; *What happens in general?* Some examples of prompts that were used were '*Give me another example of the same kind*' and '*Give me a counter-example*'.
- f) **Active learning:** we provided and created a conducive environment for active learning with an emphasis on student-centered teaching to promote students participation and engagement with the mathematics as well as opportunities for communicating their mathematical knowledge. The important elements that supported effective active learning; talking, listening, reading, writing and reflecting (Meyers &

Jones, 1993); were elements that we actively incorporated in our class activities and tasks. In addition, students were encouraged to work in a group so as to support more discussion amongst students as well as independent learning.

- g) **Using a workbook:** An important consideration was the prevalent learning culture at secondary school, high school and matriculation courses where learning was procedural and achievement was only measured in terms of examination results. Our students were consistently worried about their performance in the examinations and they also needed to see the prompts and questions to become familiar with them. In devising our teaching acts, we took these factors into account and created tasks that would introduce students mathematical ideas, thinking activities as well as provided questions to promote discussions. To ensure students had a compilation of these tasks, we designed a workbook that had five distinctive features to help students to become more familiar with our way of teaching. The five features were different sections in the book such as *Illustrations*, *Structured Examples*, *Reflections*, *Review Exercises* and *Further Exercises*.

Issue 4: Self-regulated learning (SRL)

The course is delivered to encourage independent learning and self-regulation. To support and encourage students to adopt SRL processes, the following strategies were used.

- a) Forethought and planning: students are given prior information about the course outcomes, weekly schedule, students' Learning Time calculation and the assessment information, namely, types, dates and marks allocated. In addition, they are also given *Learning Guides* which gives them information on topics outcomes, amount of time for each topic and sub-topic coverage and the assignment questions. They are encouraged to manage their own learning by using these guides.
- b) Performance monitoring: students are given questions to help monitor their knowledge and mathematical skills development. The section is named, *Making Sense*. The questions in this section is focused on students' understanding of the concepts taught and their awareness of their facility with the mathematical procedures and techniques
- c) Reflections monitoring: we have identified a section, named *Reflections* with questions addresses the students' ability to manage their study, their time, their emotional response to the study of a particular topic or in general, effective learning strategies, learning difficulties, strategies to overcome those difficulties and their levels of motivation. They have to evaluate their strengths, weaknesses, things they like about the course, teaching and learning as well as suggestions of things they would like to change. These self-reflections should influence students' future planning and goals, initiating the cycle to begin again.
- d) Soft skills development: some soft skills were identified to further enhance students' development. In this course, the skills are;
 - i. Teamwork: Collaborative and active learning strategies were used to support students' participation, encourage discussion, and teamworking skills. This will also ensure that they have stamina and encouragement to persevere using the SRL methods.
 - ii. Communication: since the students mainly work in their groups, much discussion is carried out. Sometimes, a student is called upon to share with the class their understanding of concepts taught and examples of problems that they have solved. In terms of other forms of communication, the sections on

Making Sense and Reflections, address emotional, cognitive and performance monitoring skills which are then shared in written form.

The diverse activities had generated the students' interest as well as provided them with opportunities to take charge of their learning. At the beginning, students were uncomfortable with the activities as they were different from their usual learning experiences. However, after a few sessions, they became more comfortable with the new environment, showed enthusiasm for group work, sharing of ideas and working out the mathematics for themselves. We believed that the learning environment had facilitated students' use of their own thinking and increased their communication skills amongst peers and with us. The classes were also livelier. We have seen from the students' responses (Sabariah et al, 2008) that they became more willing to communicate their difficulties and also to express their understanding of the concepts that were taught. The strategies have also enabled students to start off in doing problems although not necessarily being able to solve them but there was an increased quality of participation and more attempts at communicating with their peers and with us. An important part of our strategy was a section on *Reflections* where students were asked to reflect on the mathematical concepts as well as the skills that they have developed. It should be noted, our classes consisted of Muslims and Non-Muslims and thus many of the skills are referred in general. However, personal discussions with Muslim students would refer to the Islamic connections more explicitly. We saw that many students' written communication was improving progressively. There was also a greater willingness and enthusiasm to do problems, to discuss, explain and share their thinking with others.

4.0 CONCLUSION

We had based our strategies on learning and instruction theories but we found that each learning and instruction theory we studied highlighted certain aspects and obscured others. Thus, we had to evaluate each theory for what it illuminated about learning and how it could guide the development and design of effective instruction most suitable to our needs and concerns. In terms of enriching students' awareness of Islamic connections, we work out a very broad framework using the basic ideas that supporting students to be better thinkers, reflect and becoming more self-regulated are indeed the connections to *husnul khuluq* (good akhlaq) which are very Islamic values. In the design and implementation of the teaching strategies, we had to consider the way we taught, the students' learning environment, the way students learn and work in the classroom as well as how mathematical knowledge grow and develop as well as how personal development can be enriched. More importantly, the whole teaching and learning process must be considered as a cycle of 'planning, implement, review, modify or change' and thus, it is a dynamic and continuously improving process where each of us as teachers had to be changing first. Students found changing easier when the learning environment supports and rewards the changes they showed.

REFERENCES

Burton, L. (1984), Mathematical Thinking: the Struggle for Meaning, *Journal for Research in Mathematics Education*, vol 15, No 1, 35-49.

- Gray, E. & Tall, D.O. (1994). Duality, Ambiguity and Flexibility: A Proceptual View of Simple Arithmetic, *The Journal for Research in Mathematics Education*, 26 (2), 115–141.
- Gray, E. & Tall, D.O. (2001). Relationships Between Embodied Objects and Symbolic Procepts: An explanatory theory of success and failure in mathematics, *Proceedings of the 25th Conference of the International Group for the Psychology of Mathematics Education*, 3, 65–72. Utrecht, The Netherlands.
- Mason, J., Burton, L. & Stacey, K. (1982). *Thinking Mathematically*. Addison-Wesley Publishing Company, Inc. Wokingham, England.
- Mohammad Yusof, Y. & Abdul Rahman, R. (2001). Mathematics Education at UTM: Learning from experience. *Jurnal Teknologi*, Vol. E, No. 34, June.
- Mohd Yusof, Y. & Tall, D.O. (1994). Changing Attitudes to Mathematics Through Problem Solving. In J. Pedro da Ponte & J. Filipe Matos (Eds.) *Proceedings of the 18th Conference of the International Group for the Psychology of Mathematics Education*, Vol. IV, 401 - 409, Lisboa, Portugal.
- Roselainy Abd. Rahman. (2009). Changing my own and my Students' Attitudes to Calculus through Working on Mathematical Thinking, Unpublished PhD Thesis, Open University, UK.
- Sabariah Baharun, Yudariah Mohammad Yusof & Roselainy Abdul Rahman, (2008). Facilitating Thinking and Communication in Mathematics. Presented at the 11th International Conference on Mathematics Education, Monterrey, Mexico, 6 – 13 July.
- Skemp, R. (1987). *The Psychology of Learning Mathematics*. Mahwah, NJ: Lawrence Erlbaum.
- Skemp R. R. (1993). *The Psychology of Learning Mathematics*. London: Penguin.
- Watson, A. & Mason, J.H. (1998). *Questions and Prompts for Mathematical Thinking*. ATM, Derby.
- Yudariah Mohd. Yusof, 1995. *Thinking Mathematically: A Framework for Developing Positive Attitudes Amongst Undergraduates*. Unpublished PhD Thesis, Univ. of Warwick.

KIMIA MENERUSI JENDELA “CONNECTING TO ISLAM”

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ABSTRAK

Kaedah menarik dan penerangan yang mudah, berlandaskan Al-Quran dalam pembelajaran Sains amnya dan Kimia khususnya diharapkan dapat menarik minat generasi muda untuk mempelajari Kimia. Penerokaan ilmu Sains dan Kimia dapat menimbulkan rasa kagum dan takjub tentang kebesaran Allah. Kertas kerja ini akan membincangkan dan menyumbangkan beberapa penemuan Sains dan Kimia yang berlandaskan kepada ayat-ayat Al-Quran. Pengajaran menggunakan kerangka “Connecting to Islam” yang disarankan adalah untuk membantu persiapan bahan pengajaran. Proses pengajaran dan pembelajaran Kimia yang dicadangkan juga adalah berasaskan kepada pengalaman dalam pengajaran Kimia.

Kata kunci: pengajaran kimia, kaedah menarik, berlandaskan Al-Quran

1.0 PENGENALAN

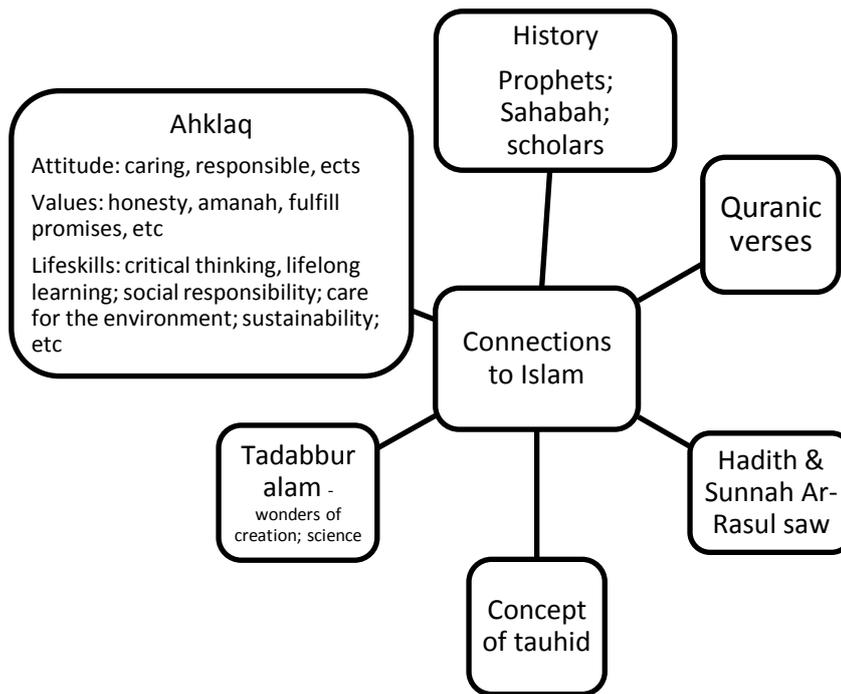
Alangkah indahna jika perkembangan Sains dan Teknologi di zaman yang pesat membangun ini berteraskan sumber wahyu dan berinsipirasikan keagungan Allah sebagai Pemilik dan Pencipta Yang Maha Agung. Pembangunan Sains dan Teknologi tanpa agama adalah buta seperti kata Albert Einstein, “*Science without religion is blind, religion without science is lame*” [1]. Kita tidak dapat menafikan keperluan Sains untuk membangun dan memakmurkan alam ini. Cuma apa yang menyedihkan kita hari ini ialah masyarakat Islam itu sendiri tidak melihat ilmu Sains dan ajaran Islam perlu kepada interaksi yang kukuh antara keduanya. Maka wujudlah ahli Sains yang buta dan ahli agama yang tempang menyebabkan adanya satu kelompongan yang luas dalam kehidupan masyarakat dunia kini. Perkembangan Sains dan Teknologi yang tidak bersandarkan kepada Al-Quran dan As-Sunnah mewujudkan masyarakat materialistik yang meremehkan nilai spiritual dan kemanusiaan.

Pendidik atau guru yang kreatif dan proaktif dalam proses pengajaran dan pembelajaran adalah sangat penting. Pendekatan pengajaran yang digunakan oleh mereka sepatutnya dapat menarik minat pelajar untuk memperolehi ilmu yang disampaikan. Pengalaman pengajar mata pelajaran Kimia mendapati ramai pelajar yang beranggapan mata pelajaran tersebut adalah sukar dipelajari kerana melibatkan pelbagai formula Kimia yang sukar ditulis, difahami dan memerlukan teknik penghafalan yang membosankan. Apatah lagi hubungkait di antara Pencipta dan perkembangan Sains khususnya matapelajaran Kimia memang tidak pernah ditekan dan dititikberatkan dalam kebanyakan sistem pembelajaran kini.

2.0 PENGAJARAN KIMIA DAN ISLAM

Sebagai persiapan kepada pengajaran, pengajar disyorkan mengenal pasti kandungan dalam topik yang hendak diajar serta mengenalpasti perkara-perkara yang boleh mempengaruhi emosi, kesedaran dan tingkah-laku pelajar. Apakah istilah, kesilapan lazim serta permasalahan pelajar yang sudah diketahui? Apakah komponen daripada Kerangka ‘Connecting to Islam’ yang hendak dikemukakan? Berikut adalah kerangka (Rajah 1) yang dicadangkan oleh Dr. Roselainy Abdul Rahman [2].

Sesuatu kaedah yang dapat menyentuh emosi dan motivasi pelajar dalam pengenalan kepada pengajaran Kimia perlu dilakukan. Para pendidik ilmu Kimia dicadangkan apabila memulakan pengajaran Kimia terlebih dahulu memberikan sedikit penerangan mengenai kepentingan Kimia dalam memahami alam fizikal dan emosional. Beberapa penerangan asas tentang Kimia melibatkan kajian mengenai komposisi, struktur dan perubahan jirim. Jirim ialah sesuatu yang mempunyai jisim dan memenuhi ruang. Berdasarkan definisi berkenaan, apa jua yang ada di sekeliling kita adalah jirim. Bak kata perputah bahasa Inggeris “*Anything under the sun is matter (jirim)*”. Oleh itu ilmu Kimia sangat luas dan penting dalam kehidupan sama ada Kimia digunakan dalam badan kita atau sekeliling kita. Bahan atau proses yang berasaskan Kimia iaitu daripada kerusi yang kita duduk, rumah kediaman, kenderaan yang kita naik, makanan yang kita makan, minuman, ubat-ubatan, alat solek dan beberapa proses yang berlaku dalam badan kita. Selain daripada itu perasaan cinta dan benci juga disebabkan oleh proses Kimia.



Rajah 1 Kerangka 'Connecting to Islam' [2]

3.0 KONSEP “QURANIC VERSUS”

Pendidik juga boleh terus mengaitkan ilmu Kimia dengan ayat al-Quran seperti berikut:

Surah At-Thariq ayat 5:

“Maka hendaklah manusia memerhatikan daripada apakah mereka diciptakan.”

Ayat ini meminta manusia berfikir tentang kejadian mereka dan daripada apa manusia diciptakan. Bidang Kimia sangat berkait rapat dengan kejadian manusia alam sekeliling. Fakta lain yang boleh di terap untuk menerangkan kebesaran Allah adalah pengajaran yang melibatkan unsur dan sebatian. Unsur yang akan dibincangkan dalam kertas kerja ini ialah besi atau ferum. **Pendidik boleh menerangkan mengenai kehebatan logam besi dan mengaitkannya dengan surah khas dalam Al-Quran mengenai logam besi ini iaitu surah Al-Hadid seperti berikut:**

Allah SWT berfirman:

“Dan Kami telah menurunkan besi, padanya ada kekuatan yang hebat serta berfungsi berbagai manfaat untuk manusia”

Allah SWT pada kebiasaannya menggunakan perkataan “khalaqna” yang bererti “kami telah menciptakan” pada kebanyakan tempat dalam Al-Quran bagi menerangkan tentang ciptaan NYA di bumi, tetapi dalam ayat ini Allah menggunakan kata “anzalnaa” yang bererti “kami telah turunkan”. MENGAPA? Penemuan ahli astronomi moden telah menyatakan bahawa logam besi yang ditemui di bumi berasal dari bintang-bintang besar di angkasa luar yang telah jatuh ke bumi. Kajian membuktikan logam berat di alam semesta dihasilkan di dalam bintang-bintang yang besar. Sistem suria tidak mempunyai struktur yang sesuai untuk menghasilkan besi secara sendiri. Besi hanya dapat dibuat dan dihasilkan dalam bintang-bintang dengan suhu beberapa ratus juta darjah dan jauh lebih besar berbanding dengan matahari. Ketika jumlah besi telah melampaui batas tertentu dalam sebuah bintang, bintang

tersebut tidak mampu lagi menanggungnya, dan akhirnya meletup melalui peristiwa yang disebut “nova” atau “supernova” [3]. Akibat dari letupan ini, meteor-meteor yang mengandung besi bertaburan di seluruh alam semesta dan mereka bergerak melalui ruang hampa hingga mengalami tarikan oleh daya graviti benda angkasa. Semua ini menunjukkan bahawa logam besi tidak terbentuk di bumi tetapi dari bintang-bintang yang meletup di ruang angkasa melalui meteor-meteor dan “diturunkan ke bumi”, seperti dinyatakan dalam ayat tersebut. Fakta seumpama ini tidak mungkin diketahui secara ilmiah 1400 tahun dahulu ketika Al-Quran diturunkan.

Sebatian yang akan dibincangkan ialah air H₂O yang boleh didapati secara semulajadi atau pun disintesis daripada gas hidrogen dan gas oksigen. Surah Al-Anbia ayat 30 membincangkan tentang air. Allah SWT berfirman:

“Dan KAMI jadikan daripada air, segala sesuatu yang hidup”

Maha Suci Allah yang telah mencipta makhluk yang bernama air ini!. Sesungguhnya air adalah ciptaan Allah azzawajala yang amat unik. Tepat sekali firman Allah bahawa kehidupan ini bermula dengan air dan dengan kehadiran air inilah maka kehidupan boleh di teruskan. Air merupakan bahan Kimia yang sangat penting dalam kehidupan kita dan 70 % daripada muka bumi dipenuhi air. Peratusan air dalam tubuh seorang lelaki dengan berat 70 kg adalah sekitar 60 %. Air adalah sebatian molekul yang dapat disintesis daripada gabungan dua atom unsur oksigen dengan satu atom hidrogen melalui ikatan kovalen. Secawan air terdiri daripada berjuta-juta molekul air yang terikat antara satu sama lain melalui ikatan hidrogen. Ikatan hidrogen dalam air molekul air menyebabkan terjadinya beberapa perkara yang menarik mengenai air contohnya mengapa ketulan air terapung di atas air. Di Negara yang mengalami musim sejuk yang melampau kita dapati air hanya membeku di atas permukaan tasik atau sungai. Maha suci Allah dengan terjadinya hal demikian kehidupan dalam air masih boleh di teruskan. Semua fakta-fakta menarik ini boleh dikaitkan dengan kebesaran Illahi.

Kebanyakan proses Kimia melibatkan air, contohnya larutan asid-bes, kepekatan larutan dan lain-lain lagi. Air merupakan pelarut universal yang amat menakjubkan. Kajian telah dilakukan oleh seorang Professor dari Jepun, Dr. Masaru Emoto dan menulis hasil kajiannya di dalam bukunya yang bertajuk “The Hidden Message in Water” [4]. Beliau menerangkan bahawa air mempunyai sifat yang boleh merakam pesanan seperti pita rakaman. Penemuan ini selari dengan sunnah Rasulullah yang melakukan perubatan atau penyembuhan penyakit melalui bacaan doa dan tiupan dalam air.

Apabila kita perhatikan terdapat berpuluh-puluh ayat Al-Quran menyebut tentang air, kita akan tersentak dan sedar bahawa Allah sebenarnya telah menarik perhatian kita kepada air. Air bukan benda mati tetapi sebaliknya menyimpan kekuatan, daya ingatan, daya penyembuh, dan mempunyai beberapa sifat aneh yang belum dikaji. Islam adalah agama yang paling hampir atau banyak menggunakan air dalam amalan agama, contohnya pengambilan wuduk untuk solat fardhu, solat sunat dan sebelum memegang Al-Quran.

Perbincangan mengenai tajuk Kimia Organik boleh di kaitkan dengan ayat 80 surah Yassin. Allah SWT berfirman:

“Iaitu Tuhan yang menjadikan untukmu dari api dari kayu yang hijau, maka tiba-tiba kamu nyalakan (api) daripada kayu itu.”

Ayat 80 surah Yassin merujuk kepada sumber bahan api petroleum yang berasal daripada pohon-pohon kayu yang hijau. Sumber bahan api seperti arang batu, gas dan petroleum seperti yang kita pelajari adalah terhasil daripada proses Kimia yang berlaku pada pohon

kayu yang tertanam dan mengalami tekanan di dalam tanah berabad-abad lamanya. Kajian mengenai petroleum ini sangat penting dan amat meluas sekali kerana ia merupakan bahan api dan bahan mentah yang amat penting dalam dunia buat masakini.

4.0 KONSEP “TADABUR ALAM”

Selain daripada hubungkait dengan ayat al-Quran ataupun *konsep “quranic versus”*, pembelajaran Kimia menerusi kerangka “Connecting to Islam” juga mencadangkan konsep “*Tadabur Alam*” [2]. Berikut adalah tajuk-tajuk yang dicadangkan:

Kepentingan Kimia Dalam Kehidupan

Perbincangan kepentingan Kimia dalam kehidupan dibahagikan kepada dua iaitu Kimia dalam badan dan Kimia sekitaran kita.

Kimia dalam badan

Kimia memainkan peranan utama dalam badan, contohnya mengawal emosi, proses penghadaman, pernafasan, metabolisme dan pengawalan penyakit [5]. Kertas kerja ini hanya akan membincangkan komposisi badan manusia dan komposisi air bagi perbincangan Kimia dalam badan.

Komposisi badan manusia

Badan manusia terdiri daripada lebih kurang 96 % adalah campuran empat unsur iaitu oksigen (O), karbon (C), hidrogen (H) dan nitrogen (N). Baki sebanyak 3 % lagi ialah campuran pelbagai unsur kalsium (Ca), fosforus (P), kalium (K), sulfur (S), natrium (Na), klorin (Cl), dan magnesium (Mg), manakala 1 % lagi ialah campuran unsur surihan contohnya ferum (Fe), kuprum (Cu), zink (Zn), iodin (I) dan kobalt (Co). Unsur-unsur ini diperlukan dalam fungsi biologi badan manusia contohnya pembesaran, metabolisme dan pengawalan penyakit. Badan manusia secara Kimia dibina daripada air dan beberapa sebatian organik iaitu karbohidrat, protein, lemak dan asid nukleik [6].

Kimia sekitaran

Kimia sekitaran merangkumi tindak balas Kimia yang dapat membantu manusia untuk hidup yang lebih baik [7]. Beberapa contoh Kimia sekitaran adalah teknik memasak makanan, pembuatan pakaian, sintesis baja, penulenan logam daripada air laut dan komposisi bumi [8]. Kertas kerja ini hanya akan membincangkan taburan unsur dalam bumi dan penulenan logam magnesium daripada air laut bagi bahagian Kimia sekitaran.

Komposisi bumi

Bumi terdiri daripada tiga lapisan iaitu lapisan dalam, lapisan pertengahan dan lapisan paling luar. Lapisan paling dalam terdiri daripada logam besi manakala lapisan pertengahan adalah bendalir panas yang terdiri daripada campuran unsur besi, karbon, silikon dan sulfur [7]. Kerak bumi atau lapisan terluar mengandungi oksigen (O), silikon (Si), aluminium (Al), besi (Fe), kalsium (Ca), magnesium (Mg), natrium (Na), kalium (K), titanium (Ti), hidrogen (H), fosforus (P) dan mangan (Mn) dengan peratusan sebanyak 99.7 % [9].

Penulenan logam magnesium daripada air laut

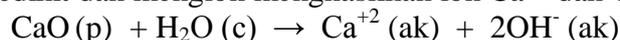
Proses Kimia dapat dilihat daripada penulenan logam magnesium daripada air laut. Magnesium digunakan dalam pembuatan aloi, bateri dan Kimia sintesis. Proses yang terlibat

dalam penulenan air laut untuk memperoleh magnesium adalah pemendakan, tindak balas asid bes dan tindak balas redoks [10]. Perincian setiap proses adalah:

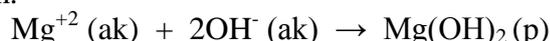
- (i) Batu kapur (CaCO_3) dipanaskan pada suhu tinggi untuk menghasilkan kalsium oksida (CaO)



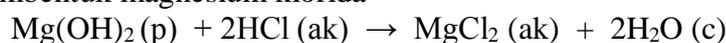
- (ii) Tindak balas CaO dengan air laut yang membentuk kalsium hidroksida, $\text{Ca}(\text{OH})_2$ yang melarut sedikit dan mengion menghasilkan ion Ca^{+2} dan OH^- .



- (iii) Lebihan ion hidroksida menyebabkan larutan magnesium hidroksida membentuk mendakan.



- (iv) Pepejal magnesium hidroksida dituras dan ditindak balaskan dengan asid hidroklorik untuk membentuk magnesium klorida



- (v) Air distimkan dan diperolehi pepejal magnesium klorida, seterusnya dileburkan dalam bekas keluli. Leburan MgCl_2 dilakukan proses elektrolisis untuk memperoleh Mg tulen.



Gas klorin ditukar kepada HCl dan seterusnya dikitar semula dalam proses.

Kaedah mudah untuk mempelajari dan menulis formula Kimia

Formula Kimia merupakan teknik ringkas yang mewakili bilangan dan jenis atom dalam sesuatu sebatian atau molekul, contohnya formula air ialah H_2O dan garam ialah NaCl [6, 9 & 10]. Proses penulisan formula Kimia boleh menjadi sangat kompleks dan sukar. Beberapa teknik yang telah dikenalpasti untuk memudahkan pemahaman dan penulisan formula Kimia sebatian adalah seperti berikut:

- (i) Penggunaan Jadual Berkala Unsur
- (ii) Penentuan Simbol Kimia
- (iii) Pengenalpastian Elektron Valens
- (iv) Penyeimbangan Cas
- (v) Penulisan Formula Kimia
- (vi) Penamaan Sebatian

Penggunaan Jadual Berkala Unsur (JBU)

JBU digunakan untuk mengenalpasti simbol dan nama sesuatu unsur, contohnya H untuk hidrogen dan Cl untuk klorin. Pengkelasan unsur mengikut nombor kumpulan dan kalaan memudahkan pengenalpastian elektron valens unsur. Unsur dalam JBU juga dapat dicirikan sebagai logam, bukan logam dan semilogam [5 & 11].

Penentuan Simbol Kimia

Simbol setiap atom yang hadir dalam sesuatu molekul atau sebatian mestilah ditulis dahulu sebelum ditulis formula Kimianya. Sebatian Kimia dapat dikelaskan kepada sebatian ionik (gabungan daripada unsur logam dan bukan logam) dan sebatian molekul (gabungan daripada unsur-unsur bukan logam). Sistem penamaan kedua-dua jenis sebatian mestilah dipelajari sebelum sesuatu formula Kimia sebatian [5 & 11]. Sebagai contoh jika diberi nama sebatian

ialah natrium klorida, maka terlebih dahulu dikenalpasti unsur yang membentuk sebatian itu. Tulis Na untuk natrium dan Cl untuk klorin (bertukar jadi klorida dalam sebatian), formula ialah NaCl. Formula Kimia bagi sebatian molekul karbon dioksida ialah CO₂ disebabkan satu atom karbon bergabung dengan dua atom oksigen.

Pengenalpastian Elektron Valens

Pembentukan sebatian ionik melibatkan atom bercas atau ion yang lebih kompleks berbanding dengan sebatian molekul [6 & 7]. Pengetahuan cas bagi kation logam atau anion bukan logam bagi sesuatu kumpulan dalam JBU dapat membantu pembentukan formula sesuatu sebatian ion. Kation atau ion +1 diberi untuk kumpulan 1, +2 untuk kumpulan 2, unsur peralihan atau kumpulan 3-12 dengan pelbagai cas positif bergantung kepada cas anion yang bergabung dengannya. Kumpulan 13, 14 dan 18 mempunyai pelbagai cas dan kumpulan 15-17 adalah anion ataupun cas negatif. Unsur kumpulan 15 bercas -3, 16 bercas -2 dan 17 bercas -1 dan penamaan unsur masing-masing diubahsuai dengan penambahan perkataan -ida diakhir nama unsur [7]. Kation bagi unsur peralihan ditulis dengan angka roman, contohnya ferum bercas +2 adalah Fe (II). Ion poliatom atau ion yang terbentuk daripada dua atau lebih unsur, contohnya ion hidroksida ditulis sebagai (OH)⁻. Sebatian ionik yang terbentuk daripada gabungan ion poliatom ini dengan sesuatu kation, contohnya aluminium hidroksida ialah Al(OH)₃.

Penyeimbangan Cas

Pengetahuan mengenai elektron valens dan cas sesuatu unsur yang akan digabungkan dalam pembentukan sesuatu sebatian ion diperlukan untuk menyeimbangkan cas kation dan anion supaya formula Kimia tiada cas [7]. Penulisan simbol magnesium oksida dapat dibentuk dengan menulis simbol kation magnesium sebagai Mg⁺² dan oksida yang merujuk kepada oksigen sebagai O⁻²; jumlah cas kation dan anion ialah 0 dan formula dapat ditulis sebagai MgO. Penulisan formula Kimia litium oksida ialah Li₂O kerana cas bagi kation Li ialah Li⁺, maka diperlukan dua Li⁺ supaya jumlah cas bersamaan dengan 0.

Penulisan Formula Kimia

Bilangan sesuatu atom logam dan bukan logam yang bergabung dalam formula Kimia sebatian ionik ditulis menggunakan nombor subskrip, contohnya magnesium klorida, MgCl₂. Kaedah yang sama juga digunakan dalam penulisan sebatian molekul, contohnya karbon dioksida sebagai CO₂ [7].

5.0 KESIMPULAN

Penerokaan fakta menarik tentang ilmu Kimia dalam Al-Quran adalah masih sedikit dan peluang untuk kajian dan penyelidikan masih terbuka luas. Kertas kerja ini dapat membantu pendidik menghidupkan dan menyemarakkan kembali kaitan ilmu Kimia dengan tradisi keilmuan islam. Banyak kajian lagi yang dapat dilakukan oleh para pendidik supaya syaria islamiah dalam pendidikan Sains amnya dan Kimia khususnya dapat dimertabatkan.

RUJUKAN

- [1] Penerokaan Ilmu Sains dan Penghayatan Al-Quran.
<http://www.ikim.gov.my/index.php/radio-ikim-fm/unit-pemasaran>.

- [2] Rahman, R.A. 2014. A Framework for Designing Classroom Instruction and Activities for Teaching and Learning Supporting Enhanced Islamic Awareness, IOICIE 2014, Kuala Lumpur.
- [3] Mencari Keredhaan Ilahi Kehebatan Al-Hadid (Besi) dalam Al-Quran. <http://irfanirsyad.wordpress.com/2012/0120/kehebatan-al-hadid-besi>.
- [4] Masaru, E. 2005. The Hidden Message in Water. Atria Books Simon & Shuster Inc.
- [5] Burdge, J. 2011. Chemistry. Mc Graw Hill International Edition. New York, Amerika.
- [6] Criswell, B. 2012. Framing Inquiry in High School Chemistry Helping Students See the Bigger Picture. Journal of Chemical Educations, Vol. 89, pp: 199-205.
- [7] Chang, R. 2007. Chemistry. Mc Graw Hill International Edition. New York, Amerika.
- [8] Danipog, D.L. & Ferido, M.B. 2011. Using Art-based Chemistry Activities to Improve Students Conceptual Understanding in Chemistry. Journal of Chemical Educations, Vol 88, pp: 1610-1615.
- [9] Hill, J.W., Feisl, D.M. 1997. Chemistry and Life. Prentice Hall. London, UK.
- [10] Koleva, M., Skopalik & L.N. 2013. Making Chemistry Attractive Subject for Lifelong Learning Interactive Approach in Presenting Educational Content. Journal of Science Education, Vol 73, pp: 373-380.
- [11] Roth, W.M., Tobin, K., Carambo, C., Dalland, C. 2004. Coteaching: Creating for Learning and Learning to Teach Chemistry in Urban High Schools. Journal of Research In Science Teaching, Vol 41, pp: 882-904.

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