

The Integration of Science, Technology and Quran: The Learners' Response Towards Ulul Albab Model

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The integration between the Quran and science has long been debated, and it has been extensively covered in the syllabus of primary, secondary and higher education institutions. There have been many attempts and efforts proposed to integrate the knowledge that aimed to clarify the idea into a proper plan. However, lack of clear-cut concept and blueprint has become a challenging task to practice the integration of the Quran and science knowledge. Therefore, the Ulul Albab Model was introduced in Program Saintis Islam Terengganu (PSIT) as a serious effort by the state government to produce Muslim scientist since 2015. Hence, this paper is written to examine the students' response towards the implementation of the Ulul Albab Model in PSIT. Data collected using a questionnaire with 37 respondents and one-way ANOVA analysis with a significance level of 5% ($\alpha=0.05$) was used in this study. The result of p-value is 0.166, shows that there was no significant correlation between the model used and students' knowledge on the integration of the Quran and science knowledge. Nonetheless, *tadabbur*, *ihya'* and *'ibrah* sessions was perceived by the students as the most essential session for them to consolidate their knowledge in the Quran and science, which also challenged their analytical thinking skills.

Keywords: Ulul Albab Model; Quran and science knowledge; holistic education; Program Saintis Islam Terengganu

I. INTRODUCTION

Islamic education has become polemic and has long been debated among scholars since the first World Conference on Muslim Education in 1977 (Sahin, 2018). The idea and thought of Al Attas have sparked the birth of a new chapter when he first presented the fundamental concepts and philosophy of the integration of Islamic values in education system (Rashid *et al.*, 2013). He has affirmed that, the Muslim should prioritise and rebound to the Quranic paradigm in education system. Al Attas has proposed two steps in Islamisation of knowledge which are; (i) isolation of western philosophy and (ii) infusion of Islamic values in various field of knowledge (Al Attas, 1978; Madani, 2016).

According to Anka *et al.* (2015), Islamisation of knowledge is practising Islamic concept as a based in all learning activities. The unity of the Quran (*Naqli*) and science (*'Aqli*) knowledge will penetrate the dualism concept in our education system (Kamil, 2017). Since then, there have been many attempts and efforts proposed to integrate Islamic values and ethics in various field of modern thought which aimed to clarify the idea in a conceptual term into a proper plan (Madani, 2016). In general, the process of Islamisation of knowledge is still a challenging task with no parameters.

Implementation of the Quran and science knowledge are significant to expose students with science study from the Islamic perspective and realise the value of the Quran as a reference source in their chosen scientific field. The previous

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study has revealed that the infusion of the Quran and spiritual elements in science furnishes an approach for students to have a holistic view and drives them to explore nature with guidance by the Quran and Hadith (Hanifah *et al.*, 2017). Apart from that, there is a need for education that is balanced in both *duniawi* (world) and *ukhrawi* (hereafter). Recently, many researchers have realised and begun to look into the aspect of religion in education in order to cope with environmental problems (Sachdeva, 2016). Climate change, pollution and degradation of natural resources happened today is due to human activities (anthropogenic). The failure might be due to the fact that man's rapacious attitude wildly and egoistically utilised and degrade resource, without thinking and did not completely realise the adverse effects in the future (Ashtankar, 2015). For some reason, the extensive number of experts and environmentalists still could not cope with the environmental problem due to a lack of appreciation in Islam whereby the protection of environment is a sacred duty rest on human being who has spiritual consciousness as a vicegerency (*khilafah*) in this world (Hassan, 2018). In fact, people are the most powerful factor and a dreadful asset for civilisational progress in society. Therefore, highly knowledgeable societies are the real wealth of the society and civilisation (Hassan, 2018). The foundation of the worldview of the Quran is the faith and creed of *tauhid* (oneness of God). It is extremely important as *tauhid* makes human beings' activities not be against by the faith in Allah as He is continually watching, managing the whole cosmos, and the universe from the greatest to minutest (Hassan, 2018). Therefore, the integration of the Quran and science knowledge in education system is the best way to build up relevant behaviour and attitude among students (Salleh, 2009).

The rationale of Islamic education is the *tauhid* concept whereby all activities had to be linked with Allah, always think and glorify Allah, being conscious of Allah in anytime and anywhere (Anka *et al.*, 2015). In general, Islamic concept of education allows students to see Allah in everything whereby the *tauhidic* elements as the basis make constant mindfulness of HIS presence among students (Hassan, 2018). The need of Islamisation of knowledge through integration of the Quran (*Naqli*) and science (*'Aqli*) are significant as a way in respond to the National Education Philosophy of Malaysia (NEPM).

Parallel to NEPM, education system in Malaysia aimed to out-turn individuals who are intellectually, spiritually, emotionally, and physically balanced with strong and firm belief in Islam (Manaf *et al.*, 2017).

In recent years, Ulul Albab concept has been applied and implemented widely as an approach to practice an Islamisation of knowledge. Ulul Albab is part of the Quran concept whereby this term has been repeated 16 times in the the Quran (Arshad, 2015; Embong, 2019). Realising the importance of Ulul Albab concept, numbers of institutions, universities and schools have been established such as International Islamic University of Malaysia (IIUM), Islamic Science University of Malaysia (USIM), *Imtiaz* School and other as an effort to integrate and embrace both the Quran (*Naqli*) and science (*'Aqli*) knowledge (Kamil, 2017). However, limited time allotted, lack of lecturers' competencies, the undefined conceptual framework, absence of clear-cut concept and blueprint of the concept have become a challenging task and recognised more as a theory than methodology plan (Madani, 2016; Kamil, 2017; Khaerani, 2017; Suryadi, Ekayanti & Amalis, 2018). Therefore, Program Saintis Islam Terengganu was design to uphold the integration of the Quran and science knowledge through the implementation of the Ulul Albab model.

A. Program Saintis Islam Terengganu

The participants of PSIT should meet the requirements to participate in this program which are; they were born in Terengganu, memorised 30 *juzu'* or chapters of the Quran, excel in their trial of Sijil Pelajaran Malaysia (SPM), and finally passed the rigorous interview sessions prior to this program.

PSIT is designed to produce individuals that balance and experts in their field as well as has firm belief in Islam. This program is initially an idea and inspiration from former Chief Minister of Terengganu, Dato' Sri Haji Ahmad Razif bin Abd Rahman. PSIT is an educational program that aims to produce a generation of Ulul Albab through the integration of the Quran and science knowledge. PSIT emphasise on shaping intellectual, physical and spiritual balanced among students. This program was conducted annually, remarkably the flagship program of the State Government of Terengganu. This program involved 60 researchers from

University of Malaysia Terengganu (UMT), University of Sultan Zainal Abidin (UniSZA), and Institute of Teacher Education of Dato' Razali Ismail (IPGKDRI) who were the experts in chemistry, biology, physics, languages, astronomy, oceanography and Islamic studies.

Eleven *Saintis Islam Terengganu* (SIT) modules were used in this program namely *Apresiasi Ketamadunan dan Kenegaraan* (Appreciation of Civilisation and Nationality), *Integrasi Quranik- Saintifik* (Integration of Quranic-Scientific), *Pengembangan Daya Fikir dan Intelektual* (Intellectual Development), *Pemantapan Jati Diri Psikospiritual* (Psychospiritual Self-improvement), *Komunikasi dan Dominasi Bahasa* (Communication and Language Dominance), *Kecergasan Fizikal dan Pemakanan Rasulullah* (Physical Fitness and Health Nutrition of Prophet), *Penerokaan Sains dan Matematik* (Exploration of Science and Mathematics), *Aplikasi Sains dan Teknologi* (Application of Science and Technology), *Keusahawanan* (Entrepreneurship), *Eksplorasi Diri* (Self-exploration) and *Hafazan* (Memorisation of the Quran). This program was run for 3 weeks and the modules implemented were conducted in various ways such as in informal classes, lab sessions, class excursions, video making, project-based learning as well as presentation. With the intention of upholding Islamisation of knowledge, PSIT exposed the integration of the Quran and science knowledge through implementation of the Ulul Albab model whereby the three-step structure, namely *tadabbur*, *ihya'* and *ibrah* were infused in all 11 modules. The ultimate aim of exposing the practice of the integration knowledge is to produce a generation of Ulul Albab.

B. Ulul Albab Generations

The term Ulul Albab has been recorded 16 times in the Quran (Arshad, 2015; Embong, 2019). The importance of being an Ulul Albab generation were clearly stated in the Quran, in Surah Ali Imran verses 190-194:

“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 (Ulul Albab). 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. Our Lord, indeed whoever You admit to the Fire- You have disgraced him, and for the wrongdoers there are no helpers. Our Lord, indeed we have heard a caller calling to faith, (saying), ‘Believe in your Lord,’ and we have believed. Our Lord, so forgive us our sins and remove from us our misdeeds and cause us to die with the righteous. Our Lord, and grant us what You promised through Your messengers and do not disgrace us on the Day of Resurrection. Indeed, you do not fail in (Your) promise.”

(Surah Ali Imran 3: 190- 194)

Generally, the term Ulul Albab has various definitions raised by philosophers, scholars as well as *mufassirin*. Hamka (1999) describes Ulul Albab as an individual who possesses good manners and high intellectual. Also, according to Ibnu Manzur (2003), the word albab is derived from the word *lubb kull shay* whereby its means something deep which is soul and reality. Besides, Imam Ibnu Kathir explained in Tafsir bil-Ma'thur, Ulul Albab refers to those who have a mature mind and pure thoughts that able to distinguish between right and wrong as stated in Surah Az-Zumar (38: 18): “Those who listen to the word, and follow the best (meaning) in it: those are the ones whom Allah has guided, and those are the ones endowed with understanding”.

Ismail *et al.* (2016) has listed several definitions of Ulul Albab from various Islamic scholar in his book entitled ‘*Nikmatnya Tadabbur Tazakkur*’. Dr. Mohd Asri Zainal Abidin, Mufti Perlis, is one of them who has defined Ulul Albab as those who possess wisdom and knowledge with mature understanding that able to make accurate judgments. Also, Dr. Zulkifili Al Bakri stated that Ulul Albab based on 4 components that are *zikrullah*: the remembrance of Allah, *tafakkur*: contemplate- scientific thought, *I'tiraf*: recognise the Greatness of Allah and *ma'rifatullah*: glorify Allah as the only Creator (Subirin *et al.*, 2017).

Besides, Idris (2008) raised the definitions of Ulul Albab as an individual who can reflect what they observed with the strong foundation of the Quran and firm belief to Allah. His notion is supported by Mariana & Shafiee, (2012), which state that Ulul Albab are scholars who are experts in their fields as well as well versed in the religious and able to embrace both

the Quran and science elements. Ulul Albab also referred to those who always think intensely and able to put all things in the right perspectives (Danial, 2007; Subirin *et al.*, 2017). In placing more emphasis, the exact and firm meaning of Ulul Albab is an individual that always reflects and glorify Allah by witnessing His creation (Sabri, 2009). From these definitions, generally, it can be concluded that the Ulul Albab is character that refers to individuals that able to infuse religion and spiritual elements in all aspects of life.

C. Ulul Albab Model

A wise generation of Ulul Albab should have three main elements and able to practice in their life; *tadabbur* the verses of the Quran, *ihya'* the knowledge gain, and always take *ibrah* learned from the knowledge gain. A combination and interrelated of these three elements can trigger a sense of connection and obedience to Allah. Finally, fulfilling these three elements able to produce a generation of Ulul Albab.

1. Tadabbur

Tadabbur is one of the ways to understand the command from Allah as the Quran was not revealed only to be read, but the greater reason is to be pondered upon, contemplate, understand and practice in life (Manaf *et al.*, 2017). The commands to *tadabbur* Quran have been recorded in Surah Muhammad verse 24: "Then do they not reflect upon the Quran, or their hearts are locked up by them?"

The prophet Muhammad pbuh once indicate that a moment of contemplate the Greatness of Allah is better instead of a year of worshipping. The command to *tadabbur* the Quran has been repeated 44 times in the Quran with different forms and terminologies (Rajab, Hali & Mat, 2018); they think, they contemplate, they examine, they observe, O the people with intellect. Besides *tadabbur*, *tafseer* also one of the process to comprehend with the Quran. However, the discipline of *tafseer* is strictly for *mufassirin* whereby only experts or literally known as *mufassirin* deserved to *tafseer* the verses of the Quran. Dato' Dr. Zulkifli Al Bakri (2019), former Ministry of Religion has explained the differences between *tadabbur* and *tafseer* very well in his website (Table 1).

Table 1. Differences between *tadabbur* and *tafseer*

<i>Tadabbur</i>	<i>Tafseer</i>
Only need a general understanding on the Quran verses	In-depth understanding and details explanation
Compulsory on every Muslim	Only authorised people
To ponder upon and take lesson form the verses	To know deep explanation in each verse

The command to *tadabbur* the Quran is not subjected only to the *mufassirin*, experts or certain people but the duty rests on the shoulders of every Muslim. Hence, *tadabbur* does not require a person to meet certain criteria like *tafseer* yet what is needed is general understanding to *tadabbur* the Quran as the Quran was revealed and made easy to understand as recorded in Surah Al Qamar verses 17: "And We have indeed made the Quran easy to understand and remember: then is there any that will receive admonition?" Thus, Rahman (2019) has outlines four terms to *tadabbur* whereby one can *tadabbur* the Quran as long as it meets these conditions which are the results of his/her *tadabbur* were not contradict with any verses of the Quran, the authentic source of *hadith*, the *ijma'* of the companions and the meaning of each sentence.

Rahman (2018) stated that *tadabbur* process should be start with *tilawah* where the verses of the Quran is recited first, followed by reading the translation of the verses of the Quran. To understand the meaning and wisdom behind the verses of the Quran, one has to immerse their self into the verses propagated as if the verse was revealed to their self. Otherwise, simply reciting the Quran without look at the translation and *tadabbur*, the desired result of understand the beauty and wisdom of religion as well as the command from Allah will not be achieved as the Quran was not revealed only to be read (Manaf *et al.*, 2017) as recorded in Surah Saad (38:29): "(This is) a blessed book which we have revealed to you (O Muhammad), that might reflect upon its verses and that those of understanding would be reminded"

The revelation of Surah Al Masad in Makkah was not only to announce and tell the Abu Lahab fates and his action. In this surah, the arrogance of Abu Lahab toward the messenger of Allah, Prophet Muhammad s.a.w., the destiny of Ummu Jamil, the wife of Abu Lahab who harming the messenger of Allah was recorded in the Quran (Ibnu Kathir, 2003). Surah

Al Masad invites us to *tadabbur* on what has Abu Lahab done to the religion and Prophet Muhammad pbuh. Otherwise, simply reciting surah Al Masad without effort to *tadabbur* the verses, readers might only know the storyline of Surah Al Masad without reflect a moment from the wrongdoing done by Abu Lahab.

2. *Ihya'*

Ihya' was adapted from the greatest Muslim theologians, the most prominent being Imam Al Ghazali (Hassan, 2018). Imam Al Ghazali has published a book entitled *Ihya' Ulum Al Din*. According to the Oxford Islamic Studies Dictionary, *ihya'* means 'revive'. The presence of *Ihya' Ulum Al Din* (The Revival of the Sciences of Religion) book shows the importance of *ihya'* to be practised in Muslim life. In this study, *ihya'* approach invites people to revive every knowledge gained as well as relive the Muslim scholars who are the unsung hero that missed in the current syllabus and Muslim's mind, which is Western colonised.

3. *Ibrah*

Besides, the Quran also urges people to take *'ibrah* so that one can learn something contained within the narratives, whether the figure is good or bad. The word *'ibrah* comes from 'abara' that means crossing from one bank to the other (Mansyur *et al.*, 2018). According to Tafsir Al Manar, *'ibrah* invites people to think and ponder upon knowledge (Asy- Syirbashi, 1985; Kamarudin, 2015). The explanation of *'ibrah* has been recorded in Surah Yusuf, verse 111:

"There was certainly in their stories a lesson for those of understanding. Never was the Quran a narration invented, but a confirmation of what was before it and a detailed explanation of all things and guidance and mercy for a people who believe."

(Surah Yusuf: 111)

The purpose of *'ibrah* is to take a lesson behind every event occur in the Quran by reflection on the facts learned and link with one's life experience. *Ibrah* has proved to foster a good deeds and improved character whereby there always have a religious value in each story happened (Mansyur *et al.*, 2018).

These three-step structures; *tadabbur*, *ihya'* and *'ibrah* were infused and introduced in all 11 SIT modules. Generally, each module will start

with *tadabbur* verses of the Quran. A lecturer begins the class by reciting the Quran verses that related to the subtopic of the module. In either way, the lecturer also could ask participants to carry out *tadabbur* part since they have memorised the 30 chapters of the Quran. Next, *ihya'* part allows the lecturer to conduct the activity planned for students. In *ihya'* part, the lecturer will relate the activity conducted based on eleven SIT's module which are; Appreciation of Civilisation and Nationality, Integration of Quranic- Scientific, Intellectual Development, Psychospiritual Self- improvement, Communication and Language Dominance, Physical Fitness and Health Nutrition of Prophet, Exploration of Science and Mathematics, Application of Science and Technology, Entrepreneurship, Self- exploration and *Hafazan* (Memorisation of the Quran), with the Quran verses introduced during *tadabbur* to revive the knowledge gain, therefore, create the connection between the Quran and science knowledge in class. Lastly, *'ibrah* part allows them to reflect on the topic learned and relate with the verses of the Quran introduced during *tadabbur*. In conclusion, these three concepts relate with verses of the Quran hence embraces both the Quran and science knowledge.

II. METHOD

The main purpose of this research study was to examine the influence of Ulul Albab Model in strengthening the integration of the Quran and science knowledge. The population in this study is the participants of PSIT Cohort 1 to 5. In this study, the sample sizes were designed using a non-probability sampling technique which is purposive sampling technique to ensure the participants of the study would be able to provide the information regard to the study and answer the research question. The samples are 37 people where 26 respondents for treatment group and 11 respondents for control group. The treatment group (26 respondents) were purposely selected from the total participants of PSIT from cohort IV to V since the Ulul Albab model was introduced on cohort IV and eleven respondents were purposely selected from the participants of PSIT from cohort I to III.

Revisiting the research objective, this study aims to examine the students' response towards the implementation of the Ulul Albab model. The teaching intervention set out to

investigate how Ulul Albab model help students to integrate the Quran and science knowledge. Evidence of the implementation of the intervention is provided through students' responses from the survey. Classroom-based intervention was applied in this study whereby Ulul Albab model was introduced and embedded in all eleven modules of SIT to treatment group. Meanwhile, the control group were only involved in eleven modules throughout the program. Classroom-based intervention involved teachers and students to work through a new concept and idea within the classroom environment. The importance of this intervention is that coaching and professional development were promising approaches for teachers to enhance their professional skills (Reinke *et al.*, 2014). Series of workshop

were conducted with facilitators as preparation and training on how to use the Ulul Albab model before the program was conducted.

The questionnaire was adapted from previous study done by Hanifah *et al.* (2017) whereby the questionnaire was constructed by experts, and going through discussion and reliability test before distributed to respondents. The questions were designed to answer the research questions and acquire an idea into their background, Ulul Albab Model and their knowledge and interest in the integration of the Quran and science knowledge. Five Likert-points checklists using a scale of 1 to 5, 1 as the lowest and five as the highest as well as the open-ended question was included in the survey to gain complete answers to the research question.

Data were collected by questionnaire and a textual interpretation was also used in reporting to support the quantitative data. Open-ended question allows this research to gain their insight into the program and offer feedback to the organisers. The result was analysed using SPSS and a one-way ANOVA test was used to see the relationship between *tadabbur, ihya'* and *'ibrah* (Ulul Albab Model) and the integration between Quranic and scientific knowledge. Besides, textual interpretation from the open-ended question was analysed using simple reading whereby the data used to support the quantitative data. The null hypothesis is rejected if $p < 0.05$.

III. RESULT AND DISCUSSION

The reliability of the questionnaire was determined using Cronbach's alpha which is 0.937, and it is considered remarkably high as suggested by Sidek and Kamaludin (2005), the coefficient of reliability that can be applied in research is 0.850.

The result of statistical analysis using one-way ANOVA test to evaluate the relationship between the Ulul Albab model and the integration of the Quran and science knowledge obtains the results of p-value 0.166 (Table 2). Hence, the null hypothesis that there is no significant correlation between Ulul Albab model and the integration of the Quran and science knowledge is accepted and the alternative hypothesis whereby the Ulul Albab model has significant relationship with the integration of the Quran and science knowledge among students is rejected.

Table 2. The result of one-way ANOVA test

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	308.662	1	308.662	1.999	.166
Within Groups	5405.230	35	154.435		
Total	5713.892	36			

As shown in Table 2, a one-way ANOVA test did not show any significant differences between the groups (control and treatments) since the p-value obtain is more than 0.05 ($F(2,35) = 1.999, p = 0.166$). Hence, the null hypothesis is accepted. Prior studies have noted that non-significant data might be due to the number of sample size used were not sufficiently strong (Mehler *et al.*, 2019). Since the implementation of the Ulul Albab model was still in the early stage, only 37 respondents were involved in this study. Thus, this might be the reason that contribute to the non-significant data. However, the overall response from the respondents shown was very positive.

The overall means revealed a high number which is 4.52 that indicates most participants have excellent information and interest on the PSIT (Table 3). In detail, about 84% of participants knew the objectives of PSIT conducted. As mentioned earlier, this program was conducted to produce a generation of Ulul Albab through an infusion of the Quran and science knowledge in order to uphold and practice a

holistic education. In view of the participants' opinion on the integration of Quranic and scientific knowledge in PSIT, 97% of participants agreed that they were exposed to the integration of knowledge throughout the program.

Likewise, they further agreed that the three-step structure; *tadabur*, *ihya'* and *'ibrah* introduced in PSIT help them to integrate and embrace both science and the Quran knowledge. To justify the abovementioned evaluation of participants, all the three elements introduced in the program. *'Ibrah* session exposed and enlightened participants to infuse religion and the Greatness of Allah in every module they acquired. They were able to relate the content knowledge of science with verses of *hadith* and the the Quran. This is in line with the Ulul Albab approach and characteristics of UA generation that always reflect and

glorify Allah in all aspects of life (Danial, 2007; Sabri, 2009; Subirin *et al.*, 2018).

Besides, *tadabbur* session also has integrate science and the Quran well in this aspect. In line with previous study conducted by Manaf *et al.* (2017), the concept of *tadabbur* help participants to understand the meaning and content of the the Quran deeply. The concept of *tadabbur* emphasises given formally and informally by Islamic preachers help students to have a better understanding and ability to integrate between science and the Quran very well. Furthermore, they also agreed that *ihya'* aspect also helps them to integrate the Quranic and scientific knowledge. This explains that the lecturer able to conduct and bring in the three-structure concept favourably through activities run in the class.

Table 3. Content analysis revealing responses on the integration of the Quranic- scientific knowledge section

	Items	Agreements
Information and interest on PSIT	1. I understand the objectives of PSIT	84%
	2. I get exposure about the integration of 'Aqli and Naqli knowledge emphasise in each module and activity conducted	97%
	3. I understand the <i>tadabbur</i> concept used in the PSIT	94%
	4. I understand the <i>ihya'</i> concept used in the PSIT	87%
	5. I understand the ' <i>ibrah</i> concept used in the PSIT	94%
	6. Which aspects introduced in PSIT integrated Science and the Quran knowledge very well?	
	I. ' <i>Ibrah</i>	94%
	II. <i>Tadabbur</i>	90%
	III. <i>Ihya'</i>	97%
	IV. Presentation (individual)	87%
	V. Presentation (group)	94%
	VI. Video making	61%
VII. Module session with lecturer	94%	
VIII. Lab session	97%	
IX. Class excursion	97%	
7. PSIT has successfully integrated science and the Quran knowledge	100%	
8. Lecturers able to cater both the Quran and science knowledge	94%	
9. The lecturers knew the subject matter well	100%	
10. The lecturers gave clear explanations of the topics	97%	
11. The speed of the lecturers was appropriate	94%	
12. The facilitators welcomed questions and respond to students appropriately	97%	
	Overall	4.52 (Means)

The module activity will start with *tadabbur* session. For example, The Creation of Earth is one of the topics in the Integration of Quranic- Scientific module. *Tadabbur* session begins whereby facilitator will read the related verses which recorded in Surah Yunus verse 6: “Surely, in the alternation of the night and the day, and in all that Allah has created in the heavens and the earth, there are truly signs for those mindful of Him”. A thorough reading of the Quran will not fail to impress the reader with the fact that Allah s.w.t. as The One Omnipotent Creator of the whole cosmos, galaxies, heaven and earth, flora and fauna from the miniature creature to the biggest creature (Hassan, 2018). The facilitator brings students to the beach- visit as part of *ihya'* approach in this module whereby students can feel the real atmosphere and remember Allah while reflect on His creation. The *'ibrah* that we can learn from this topic is the whole cosmos and universe is created by Allah swt and as the servants and *khalifah*, the duty to manage this world responsibly and systematically rests on every Muslim shoulder.

Similarly, the consistency in rating was also high as research outcome highlights that 94% of participants chose face-to-face module sessions with lecturers as one of the most significant aspects in the integration of the Quran and science in this program. Generally, the participants show an excellent rating with their concerns regarding how lecturers conduct the classes, welcoming questions as they strongly agreed that lecturers were able to cater science and Quranic knowledge, information about the subject matter as well as lecturer's approach in class with an excellent overall average mean. In other words, this show that the class went well and effective, whereby students were involved and engaged in the learning process (Fuzi *et al.*, 2020).

Furthermore, as shown in Table 3, class excursion gains excellent rating with 97% of them strongly agree that the Quran and science has integrated very well during this activity. Likewise, about 97% participants claim that the Quran and science have been well integrated into lab sessions. In line with a previous study by Basheer *et al.* (2017) who writes that demonstration during lab session enables students to enhance their learning skills as well as increase their curiosity by promoting the participation of students during the experiment was conducted.

They further agreed that group presentations (94%) have integrated the Quran and science very well compared to individual presentation (87%). The statement of participant reflects this:

“Group presentation allowed us to exchange our opinion and knowledge with friends. It also helps us to gain details information as members of the group will share their findings on the topics given”.

Other students also emphasise that group presentation help them to understand and integrate the Quran and science very well as in their statement:

“Usually group presentation were included some activities and task need to be done. This give us a chance to share idea among friends and we have courage to ask lecturer's opinion when we are in a group”.

From the above statements, it can be concluded that group presentations help participants to have a better understanding and ability to integrate well between the Quran and science by exchange their idea and knowledge with friends. Sharing ideas and opinions by relating them with content knowledge with the Quran increases learners' critical thinking skills and allows learners to be more autonomous. Besides, the findings showed that 62% of participants claim that the vlog (video log) assignment has well-integrated the Quran and science during PSIT. During this assignment, the participants were asked to reflect on their journey of each module and relate their learning with their worldview of science. It was witnessed that all participants managed to relate their reflections with *hadith* and the Quran verses. This also reflects the success of *tadabbur*, *ihya'* and *'ibrah* sessions held in the modules.

Table 4 shows the response of participants on their interest in the integration of the Quran and science knowledge. In most questioned asks, 90% of participants strongly agreed that science should be based on religion. This finding equivalent with their answer, which they strongly agreed that the whole cosmos, universe, and nature were created by the one true God, Allah (94%) and they knew about the elements of science found in the Quran (97%). The Quran reveals that the whole cosmos, universe, and nature were created by Allah and not the result of blind forces or accidents of nature as mentioned in Surah Az- Zukhruf, verse 9:

“And if you should ask them, “Who has created the heavens and the earth? They would surely say, “There were created by the Exalted in Might, the Knowing.”

Another promising findings are about 90.0% of the participants aware and understand the meaning of Ulul Albab. Likewise, all of them also knew what is meant by secularism. These promising findings indicate that most of them possess high awareness of the importance of Ulul Albab and the threat of secularism. The personality of true scholars Ulul Albab, as mentioned in the worldview of the Quran, ensured the growth of Islamic Civilisation, in which science and technology were in harmony with religion. Otherwise, secularism excludes the existence of God in the realm of science and life (Hassan, 2018). Since most of the participants are well versed with Ulul Albab and secularism, these findings correspondingly discovered that all participants agreed that science brings them closer to Allah and makes them think about God, which they observe not only the phenomenon of the creation but also the wisdom behind it.

Likewise, the study also shows that 90% of participants agreed that they are willing to share information about science-based on religion since they possess high interest and knowledge of scientific thought. However, only 74% of participants often have discussions with their friends and lecturers. This might be due to some of them unable to understand the integration of the Quran and science knowledge thoroughly. Therefore, the fact that basically they

have been received Islamic Education and interest in the integration of the Quran and science knowledge since primary school as Islamic education subject, Quran and Sunnah subject, Syariah Islamiyah, Tawawur, Maharat Al Quran and Hifz Al Quran subject was offered during primary and secondary school. Thus, it is beyond the bounds of possibility that they have no idea about the integration of the Quran and science as they were exposed to the knowledge since their primary school.

This shows the importance of Islamic Education taught in school that not only aimed to produce an excellent and educated student but also a pious and ethical student in this world and hereafter (Ibrahim *et al.*, 2017). Literally, school background may be a powerful factor and influence their view on the integration of the Quran and science knowledge. Their educational experiences, including schools attended, syllabus, and program might affect their attitudes, beliefs as well as perceptions regarding scientific thoughts.

On the other hand, since PSIT prepared the participants with various activities such as group discussion, presentation, interview, experiment work in lab as well as class excursion were conducted throughout the program enhance their knowledge in the integration of the Quran and science knowledge. Generally, in analysing the answer to this section, the overall average means is 4.57, signifying an excellent evaluation of their interest in the integration of the Quran and science knowledge.

Table 4. Content analysis revealing responses on the information and interest on PSIT

Section	Items	% Agreement
Interest in integration of Quranic-Scientific knowledge	1. Science should be based on religion	100%
	2. The whole cosmos, universe and the nature were created by the one true God, Allah s.w.t	97%
	3. I know about the elements of science found in the Quran	97%
	4. I understand what is meant by Ulul Albab	90%
	5. I understand what is meant by Secularism	90%
	6. I believe science can bring me closer to Allah	100%
	7. I realise science make me think about the power of God	100%
	8. I am willing to share information about science-based on religion	90%
	9. I often have discussions with friends and lecturers on science and religious knowledge	74%
	Overall	

Table 5 shows participants' views on Muslim scholars and the practice of integrated knowledge in their daily life. In this section, the participants' view on integrating Islamic Perspective in daily practice shows an excellent average mean that is 4.64. All participants agree that the three- structures: *tadabbur, ihya'* and *'ibrah* introduced in the program help them to practice the integration concept with the current field of their study. Moreover, 94% of the participants agreed that *tadabbur, ihya'* and *'ibrah* concepts should be practice in higher institution level. However, only 61% of the participants still practice the *three elements* in their current field of study frequently and another 39% were rarely practice the Ulul Albab model in their study. A possible explanation might be that the participants were independently practice

the *tadabbur, ihya'* and *'ibrah*, since there is no specific course offer that integrate the Quran and science knowledge.in their universities or institutions. Likewise, 94% of participants knew Muslim scholars are the unsung heroes that have significantly contributed to science and technology. Furthermore, all participants wish to become Muslim scholars that are well versed in both the Quran and science knowledge. In the victory of Islamic Civilisation, Islam did have an impact on science. It should be remembered that the wide-ranging contributions of Muslim scholars to mathematics, astronomy, physics, biology, chemistry, botany, and medical science, were developed from the deep analysis, thorough reading of the epistemology of the Quran.

Table 5. Content analysis revealing responses on integrating Islamic perspective in daily practice

Section	Items	% Agreements
View on the integrating Islamic Perspective in daily practice	1. The <i>tadabbur, ihya'</i> and <i>'ibrah</i> concept introduced in PSIT help me to practice the integration concept with currect field of my study.	100%
	2. The <i>tadabbur, ihya'</i> and <i>'ibrah</i> concept should be practice in higher institution level.	94%
	3. I'm still practice the <i>tadabbur, ihya'</i> and <i>tadabbur</i> concept in my current study	61%
	4. I know Muslim Scholar is the unsung hero that have contributed greatly in science and technology	97%
	5. I wish to become a Muslim scholar that well verse in both scientific and Quranic knowledge	100%
Overall		4.64 (Means)

IV. CONCLUSION

The three-step structure, which is *tadabbur, ihya'* and *'ibrah* sessions were proven to be the most important session for the learners to consolidate their knowledge in Quran and science Furthermore, it also challenged their analytical thinking skills and allows them to be more critical. In addition, others sessions identified by respondents also significant in integration of science and the Quran knowledge such as module session with facilitators, lab session, group and individual presentation, class excursion and video making. The analysis proved that this program have changed their perceptions on science from Western worldview to Islamic worldview. The current study was limited by the number of respondents involved. Hence, further reserach using

qualitative approach is suggested to access the students' perspective to gain in- depth understanding regarding the implementation of the Ulul Albab model since the number of respondents involved is limited.

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