

CHAPTER 4: FINDINGS

4.1 Introduction

This chapter explores the findings of qualitative and quantitative studies. The research reports on the results in two phases. The results of the qualitative study are intended to answer the second research question that discovers the skills required to integrate Islamic and scientific knowledge from the experts. Meanwhile, the results of the quantitative analysis are intended to address the third question, which is to measure the level of skills integration among students.

4.2 Data Analysis

I) Qualitative Study

This section presents the conclusions and data collected from the semi-structured interview performed and complemented by the study in the library. Interviews were conducted among eight participants. The interviews were conducted roughly half an hour or less than 15 minutes. Data was collected through transcription from interviews. After the researcher conducted the interviews, the interviews were recorded, transcribed, analysed, and revealed as the following findings. Significantly, interviews were transcribed, except non-meaningful phrases such as Oh, Oh, etc. Interviews have been transcribed to Word folders. In particular, the data were collected and reviewed, as stated by the research questions, and the interviews were performed at four separate faculties, which were meant to be multidisciplinary. Data collected from the interview sessions was validated.

Research Participants

The researcher has named the list of participants according to the respective faculties. In addition, the researcher identified key issues in the results of the qualitative analysis in the representation of the real picture of issues related to the integration of Islamic and scientific knowledge. The label is shown in Table 1:

Participant	Faculty
Lecturer #1	FPQS
Lecturer #2	FSU
Lecturer #3	FEM
Lecturer #4	FST

Table 1: Participant's labelling

The researcher identified all groups of interviewees, the faculties chosen and the role of the participants in their department in Figure 27 as below:

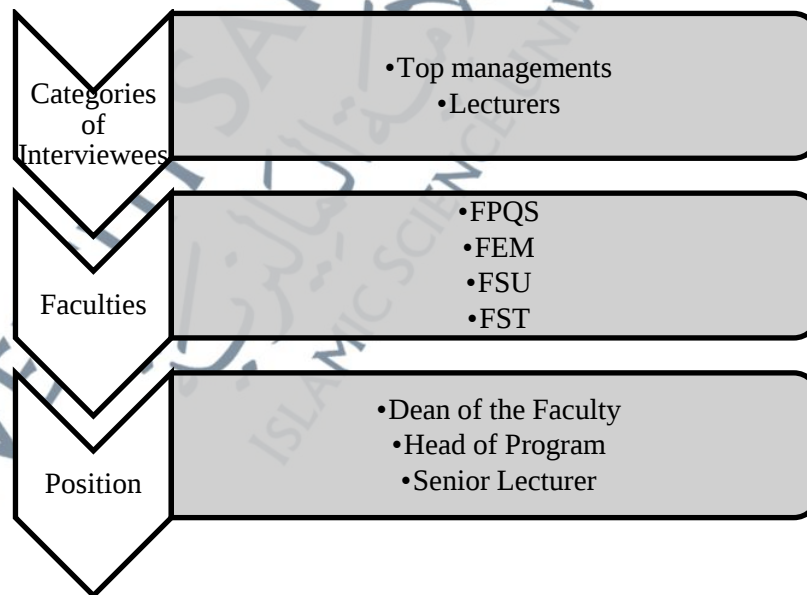


Figure 27: List of participants who participated in semi-structured interviews

The researcher described all the key issues about the integration of Islamic and scientific knowledge in Figure 28:

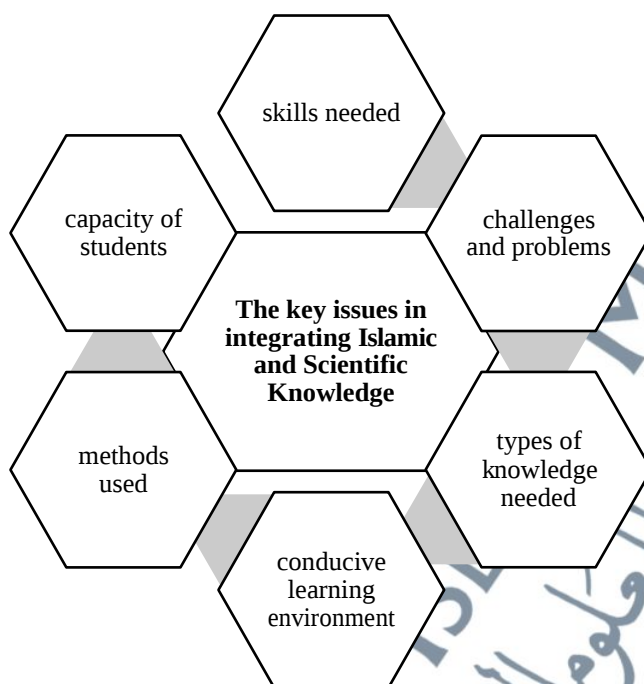


Figure 28: Key issues in the findings of the qualitative study

1) Methods Used for the Delivery of Islamic and Scientific Knowledge

The first issue is the methods used for the delivery of Islamic and scientific knowledge. The question that the best method of channeling Islamic and scientific knowledge (Naqli and Aqli) among students in the classroom reflects the best approach that students should take to integrate Islamic and scientific knowledge.

In the research conducted by Gilani and Islam (2018), Al-Alwani stressed the significance of discovering the methodological relation of methodological coherence in the state of its inimitability and natural law as well. Furthermore, the more knowledge gained pertaining to divine revelation and the universe, more capacity could be expanded to find the methodological relation that displayed the

methodology of both revelation and universe that were correlated to each other. The lecturer discussed the importance of the methods used which influence Islamic values and customs. Lecturer #3 anticipated:

“The lecturer should be clear on the Islamic and scientific elements. Islamic elements could contribute to Islamic values and customs.”

It is a must for the lecturer to be explicit about the Islamic and scientific aspects. Islamic elements could contribute to the practices and values of Islam. Another lecturer offered more details about the importance of the methods used. The lecturer #1 expounded:

“From the point of view of Islamic teaching, the knowledge needed to integrate Islamic and scientific knowledge could be seen in the approach of subjects such as I’jaz Quran, Tafsir Ilmi and I’jaz Ilmi. These subjects discuss the combination of Islamic and scientific knowledge. The same goes for Al-Quran, which explains a lot about the integration of Islamic and scientific knowledge. Nevertheless, it is important to understand and interpret Al-Quran correctly. To order for the Al-Quran to be well-interpreted, the stated expertise is required as an ability to be able to obtain a better understanding of integration.”

This is critical as the approach will be expressed in the information acquired. From the perspective of Islamic teaching, the expertise required to combine Islamic and scientific knowledge could be seen in the subject-matter approach. However, it is important to understand and translate Al-Quran correctly. In order to ensure that the Al-Quran is well-interpreted, the specified competence is needed as a capacity to achieve a better understanding of integration.

Nevertheless, lack of understanding is harmful, as it can lead to error. Lecturer #4 highlighted:

“The amount of exposure, knowledge, philosophical debate is important as it is a source of Islamic values. Lack of comprehension of the theory of integration of Islamic and scientific knowledge eventually leads to a wrong way of thinking without being conscious.”

The lack of awareness of the philosophy of integration of Islamic and scientific knowledge inevitably contributes to a wrong way of thought without being aware of it. Furthermore, Ukhrawi and Duniya are a complementary set to be learned to explore the methods used. Lecturer #2 clarified:

“Human rights have been widely misunderstood by Muslims. People also mistakenly accepted that human rights are the result of the West. Islam is, however, a defender of human rights, such as Maqasid Sharia. It is therefore necessary to reconcile this matter as a complementary element. This means that Ukhrawi and Duniya are a complementary package. There is no item in the world that is not stated by Islam.”

This means that Ukhrawi and Duniya are a compatible kit to us as Muslims. The root of knowledge comes from Islam, but a misapprehension has arisen where knowledge is assumed to come from the West. Besides, lecturer #2 said regarding the method used in integration of knowledge:

“Those who have come from the Islamic field need to be exposed to other disciplines of knowledge and not limited to specific knowledge. There are tools or mechanisms in place to obtain a reference from the various fields of education. For example, if the

FST wants to refer to the Quran, it needs to have a source of information. It is therefore necessary to have specific software or index books for the verses of the Quran in any field to make it easier for the lecturer to refer to them. This method would make it easier for people to read or respond to the Quran. Fortunately, the tools for translating the verses of the Quran were already in place for the use of science parts. But then, there is no other field yet. Featuring Imam Ar-Razi, he made the encyclopedia of the Quran, Kitab Mafatihul Ghaib, where the verses of the Quran related to different fields of education.”

It is encouraged that many that have come from the Islamic area must be open to other disciplines of education and not restricted to basic knowledge. Tools or processes are in order to receive a guide from the relevant areas of education. Apart from that, lecturer #1 expressed regarding the knowledge and method used:

“Knowledge itself is part of the integration of Islamic and scientific knowledge. For students, if the course has an IT base, students must learn IT skills to integrate knowledge with experience.”

Therefore, knowledge itself is thought to be part of the integration of Islamic and scientific knowledge. In achieving integration, a specific method should be discovered to approach how Sunnah is based on the Quran’s methodological perspective. As a result, it would display the living example of Quranic tradition visualised by Gilani and Islam (2018).

2) Skills Needed to Integrate Islamic and Scientific Knowledge.

The second issue concerns the expertise needed to integrate Islamic and scientific knowledge. Students are a representation of the lecturers in terms of expertise. Through exploring the skills required by the lecturers, students are encouraged to learn and take the initiative to empower themselves with the necessary knowledge. In addition, in line with the skills needed, students will be able to apply the integration of Islamic and scientific knowledge.

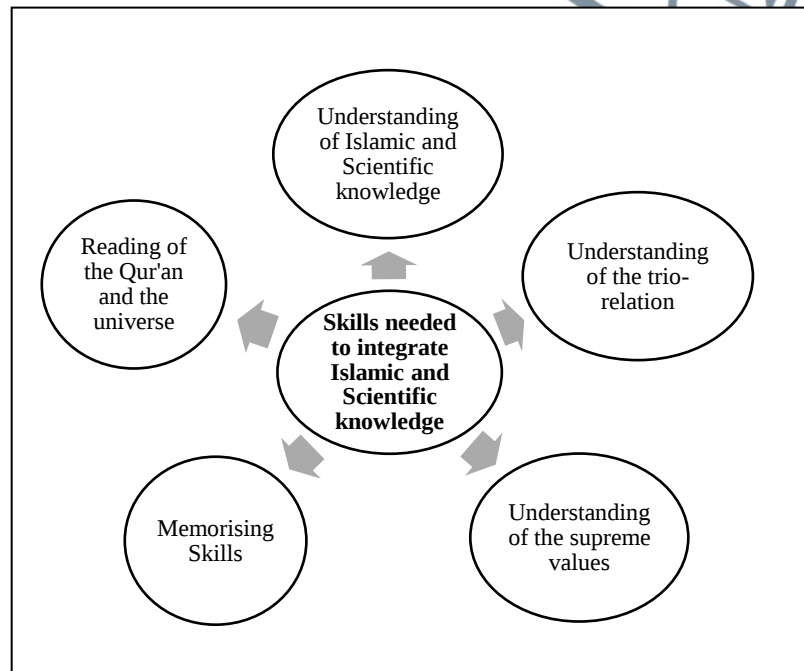


Figure 29: Skills needed to integrate Islamic and Scientific knowledge

Based on Figure 31, the researcher matched the results of the semi-structured interview with Al-Alwani on the skills required to integrate both Islamic and scientific knowledge in advance. Baba et al. (2015) asserted that the meaning of understanding was best described the thinking process that involved the cognition part and heart feeling where it brought the comprehensive meaning of the

concepts and guided the mind of exploring the nature, creation and the unseen things that ultimately brought a closeness to the Creator. Therefore, understanding has seen a critical skill in integrating both Islamic and scientific knowledge.

a) Understanding of Islamic and Scientific knowledge

Understanding is key to learning regardless. Understanding should come before the application and implementation of the integration of Islamic and scientific knowledge.

Lecturer #3 asserted the significance of clear interpretation of Islamic and scientific knowledge.

“The most important ability is to clearly understand the purpose and interpretation of Islamic and scientific knowledge.”

This statement was emphasised by lecturer #2:

“Understanding of the integration of Islamic and scientific is essential.”

The most critical capacity is to clearly understand the intent and understanding of Islamic and scientific knowledge. It is important to consider the integration of Islam and science. There was a high demand for a clear understanding of the definition of integration as the skills needed for students to integrate both Islamic and scientific knowledge.

The scope of Islamic and scientific knowledge is wide and broad. It is boundless, and a wide-ranging debate is needed to discover it for all. In addition, the researcher divided the understanding into three aspects, the definition and concepts, the methodology used and the sources of knowledge.

According to Al-Alwani, a learner should have the consciousness and understanding that supports the duty of leaders in this world and hold

responsibly all the responsibilities instructed by Allah. Besides, the Holy Quran presented as a source of natural science as propounded by Gilani and Islam (2018). Lecturer #4 highlighted:

“The integration of Islamic and scientific knowledge consists of three main components, tauhid. All must be connected to the Creator. Second, principles such as faith, truth, fairness, dignity, and the ideals of Islamic teaching. Third, the objective/purpose problem. Everything we do, if we research, teach, go to sports, get involved in business, it is for duniya and akhirah.

The integration of Islamic and scientific knowledge is made up of three major elements, the Tauhid. All of them must be linked to the Maker. Second, the values of religion, truth, justice, integrity, and the values of Islamic education. Second, the objective/purpose question. This statement was supported by lecturer #2:

“Another example is the topic that discusses the sun, the earth, the sky, and the rain. Both these are made by God. Everything must be connected to Allah. It is not enough, however, if it depends on Islamic knowledge alone. The same applies to scientific knowledge. Scientific knowledge should have a foundation and come with the Quran. The reference has to be from the Quran.”

All needs to be connected to Allah. However, it is not enough if it relies on Islamic knowledge alone. The same is true of scientific knowledge. Scientific knowledge should have a basis and be part of the Quran. The reference to this must be from the Quran. Al-Alwani believed that the value of trinity formed the Quranic central axis. Lecturer #2 contemplated:

“Aqidah has to be right. If the clear and true interpretation of Aqidah is not solid, it can lead to error. It is important to be firm with Iman inside oneself. The overuse of scientific aspects and logic must be

driven by the Shariah law, which Aqidah must be clear enough to implement properly and not against Shariah law.”

Our Aqidah got to be true. If the plain and true meaning of Aqidah is not sound, it can lead to error. It's important to be firm with Iman on the inside. The overuse of scientific elements and reasoning must be motivated by Shariah law, which Aqidah must be reasonably simple to enforce correctly and not against Shariah law. Besides, lecturer #3 mentioned the limitations of knowledge:

“There is no limit to knowledge in the integration of Islamic and scientific knowledge, as it is very open, vast, and large. Nevertheless, when it comes to Aqidah, there is a limit. It can often be against scientific evidence because research needs to investigate knowledge. However, there is no limit at all to FEM.”

There is no limitation to knowledge in the integration of Islamic and scientific knowledge, as it is rather accessible, broad, and extensive. However, when it comes to Aqidah, there is a cap. It may also be against empirical evidence when information must be investigated by research.

b) Dual Reading of the Quran and Universe

According to Al-Alwani, integration requires the dualistic reading of the Quran and Universe. Combining the two readings consists of the reading of the Quran and the created universe. One lecturer explained the origins of knowledge. Lecturer #4 asserted:

“Knowledge will come from Al-Quran and Hadith. It is important to appeal to the Quran and Hadith experts if there is a lack of knowledge of the matter. Besides, Kitab Turath, which includes the knowledge of the ulama.’ Many of the ulama’s are strong at both

religious sciences and science and technology. There is still a lack of Islamic understanding among the lecturers who come from science and technology backgrounds. Knowledge from science and technology is also required. Efforts have been made for Kitab Turath at the Pusat Islam Complex. Manuscript is not so many, but services are coordinated by IKIM, UKM and the National Library. These are the best sources of knowledge.”

The researcher noted that the knowledge is originating from Al-Quran and Hadith. It is necessary to refer to the experts of the Quran and Hadith if there is a lack of information of the subject. Additionally, Kitab Turath, which requires knowledge of the ulama.' Most of the ulama's are high in both religious philosophy and science and technology.

Lecturer #1 stated his opinion that the integration required both Islamic and scientific knowledge:

“Understanding needed to integrate Islamic and scientific knowledge, for example, are modern science and knowledge of Turath relating to the Quran and Sunnah; Exegesis and Fiqh.”

Comprehension needed to combine Islamic and scientific knowledge. For instance, modern science and knowledge of Turath are linked to the Quran and the Sunnah; Exegesis and Fiqh. These statements strengthened the fact where the reading of both revelation and the universe play a vital role in integrating Islamic and scientific knowledge. Al-Alwani mentioned the need for an individual to have sufficient knowledge of the Quran and science to discover the methodological integration.

Besides that, the foundation should be strengthened especially in the aspect of the Islamic educational worldview that should be reconstructed in following the pillars of belief, the principles and attributes of the Quranic perspective remarked by Gilani and Islam (2018). Lecturer #1 commented:

“There is no limit for students to have knowledge of Islamic and science topics. Integration should have taken place using the scientific method. However, there is a limit in the context of knowledge itself. For example, unknown events like Heaven and Hell may not be visualised even from a logical viewpoint, because Allah knows even.”

It is believed that there is no limit to students' understanding of Islamic and scientific subjects. Integration had to take place using the scientific approach. There is, however, a cap in the sense of information itself.

Lecturer #4 outlined knowledge integration:

“Muslim scholars have also been involved in mathematics. This kind of knowledge is needed to integrate so that it does not become secularised.”

Muslim academics were also interested in mathematics. This kind of information is required to incorporate so that it does not get secularized.

c) Understanding the Trio-relation (Allah, Human Being, and Universe)

Observation would trigger the human being to realise the cause and purpose behind every single creation. There would be a consequence when the Quran has been used only as one-sided reading. This can be seen in the existing crisis when the Islamic methods were misused and Islamic methodology for different fields was limited. Most of the lecturers highlighted the approach of both knowledges to integrate the Islamic and scientific knowledge successfully. Al-Alwani asserted this trio-relationship helped the reader to explore how things happen and eventually enhanced the consciousness of the Quranic revelation (Gilani and Islam, 2018). Lecturer #4 mentioned the importance of understanding the world and the Hereafter:

“Understanding the Quran and Sunnah and science and technology will balance the understanding of the universe and the afterlife.”

The interpretation of the Quran and the Sunnah and science and technology will complement the understanding of the cosmos and the hereafter. Lecturer #3 remarked on the academic subject teaching the integration process:

“The subject of the Calculus has components of Islamic knowledge, but it was not intended to Islamise the subject. However, the implementation of the subject should be practised because it required the integration of both Islamic and scientific knowledge.”

The topic of the Calculus has components of Islamic understanding, but it was not meant to islamise the subject. However, the introduction of the topic should be carried out because it involved the integration of both Islamic and scientific knowledge. Lecturer #2

outlined the sources of knowledge from the Holy Quran:

“There will be assumptions in the matter of civil law. Iqarar and Qarina will be used to confirm the witness. It is important to use the critical reasoning and proof of Nas taken from the Quran.”

There may be conclusions in the context of civil law. Iqarar and Qarina will be used to validate the evidence. It is essential to use the crucial logic and facts of Nas taken from the Quran. Any knowledge should be reflected in the sources, as it is connected. It should be within the capacity of the human being to read the Quran and the universe. These interconnections convinced logical thinking in accepting the divine revelation through the consciousness and capacity. Hence, the reality from the surrounding would be understandable. Nevertheless, Al-Alwani stated that the Quran is an essential subject that connects to all aspects (Gilani and Islam, 2018). Lecturer #2 explained the scope of knowledge:

“The knowledge is infinite. It is all from Him. The matter of mathematics is indeed from Allah if the faith is valid. Nothing in this world will ever happen except with the permission of Allah.”

Knowledge is limitless. It's all from Him. Indeed, the matter of mathematics is from Allah if the religion is true. Nothing in this world shall ever happen except with the approval of Allah.

Lecturer #4 remarked on the importance of understanding knowledge:

“A clear understanding of the Quran and the Hadith is required throughout the integration of Islamic and scientific knowledge. Learning a lot from Kitab Turath is going to be a gem of Islamic insight.”

A consistent understanding of the Quran and the Hadith is essential in the integration of Islamic and scientific knowledge. Knowing a lot from Kitab Turath would be a gem of Islamic wisdom. Every chapter in the Quran has specific lessons. It contains the explanation of meaning and elaboration that benefit the human being in discovering the truth of revelation and universe.

In Gilani and Islam (2018), Al-Alwani explained that the reconsideration of Islamic tradition required critical and analytical reading at the same time as well as justification methodology could be enriched with an analogy to avoid total rejection and total acceptance. Lecturer #4 declared:

“Scientific knowledge is taught in the FST. However, understanding is required to integrate Islamic elements into the scientific component. If the lecturer requires students to apply the facts of science to the Quran, students need to know the correct verse for the Quran. Any discipline of information in the FST shall be specified in the Quran. It is about how to find the evidence and prove that the knowledge is inside the Quran. For example, Muslim scholars have been involved in the mathematical subject. That kind of information is required to incorporate so that it does not become secularised. Throughout their skills, students can refer to FPQS lecturers or conduct any interviews with other Muslim scholars to validate information or knowledge in their research.”

Any discipline of science knowledge shall be stated in the Quran. It's about how to locate the proof to show that the knowledge is inside the Quran. For example, Muslim scholars have been interested in the subject of mathematics. That kind of knowledge must be integrated so that it does not become secularized.

d) Memorising skills

Memorising and understanding are complementary. It would be one of the practical efforts to achieve the integration of Islamic and scientific knowledge. Memorisation is also known as the cognitive process and feeling that encourages individuals to absorb the principles from the guideline of Shariah and Islamic practice and would be transferred to long-term memory, to be stored and recalled (Baba et al., 2015).

Lecturer #4 said on this demanded skill among students:

“The main challenge is to understand and interpret the context of the Quran. Reading the Quran will be available to everyone. The problem would be if the lecturers did not come from Islamic history, and they were not the huffaz memorising the Quran.”

The biggest task is to understand and to interpret the meaning of the Quran. Reading the Quran is going to be open to everyone. The dilemma would be if the lecturers didn't come from Islamic history, and they weren't the chorus memorizing the Quran.

e) Understanding the supreme values (tawhid, tazkiyah, and civilisation)

These supreme values cannot be separated as it correlated to each other. A fundamental human belief is that God created the universe. Gilani and Islam (2018) mentioned that the Quran was not considered as a book of theology that led to one-dimensional reading. They suggested an integrated reading since Islam was not against scientific facts. Another lecturer pointed out that knowledge of Islamic and scientific knowledge is essential for the integration. For example, to relate medical knowledge to the Islamic perspective, lecturer #2 said:

“Competencies and a thorough understanding of Islamic and scientific knowledge are important. For example, how to use the topic of astronomy to know the time for prayer and calendar.”

Qualities and an in-depth understanding of Islamic and scientific knowledge are essential. For example, using the theme of astronomy to record the precise for prayer and calendar.

Lecturer # 4 represented the ultimate objective that should be instilled in students:

“Islamic insight can produce questions about how to integrate Islamic and scientific knowledge into the classroom. Lecturers need to play a part in demonstrating the students’ dream of what they are learning. It is necessary to avoid misconceptions that students are pursuing degree certificates and secular values. It is important to inculcate among students that they are studying to support Muslims and Islam. Every step of the class will be rewarded by God, and it is a road to the Jannah. It is our job to show the right vision and the profound explanation of why they are learning.”

Islamic wisdom will raise concerns about how to bring Islamic and scientific knowledge into the classroom. The researcher noticed the lecturers ought to play a role in demonstrating the students' dream of what they read. Misconceptions that students are following degree qualifications and secular ideals must be avoided. Knowing the similarities and dissimilarities of the scientific facts would lead to pondering about the rationality of the creation and eventually reflect the truth of divine revelation. Curiosity should be instilled when teaching students.

3)The Perceptions of Lecturers About the Ability of Students

In the third concern, the researcher discovers the perceptions of lecturers about the ability of students to combine Islamic and scientific knowledge. All lecturers and students should be conscious of the integration taking place in the classroom. Most of the participants were all on the same page when it came to this point where they said where students had the capacity to combine Islamic and scientific knowledge as students had been exposed to Islamic and scientific knowledge.

Gilani and Islam (2018) illustrated the integration that happens between the revealed and rational knowledge merely depends on the competency of the individual. Al-Ghazali claimed that most of the revealed knowledge has its rationality for those who learn and would be revealed for those who have instinctive knowledge.

The integration process should be balanced between IQ, EQ and spirituality of the students. Lecturer #3 claimed:

“It is important to emphasise the balance between the IQ and the EQ, and not just the IQ, which is the academic of the students to be acknowledged in the integration of Islamic and scientific knowledge. It is vitally important to see the balanced EQ and the spiritual within the students themselves.”

It is important to note the balance between the IQ and the EQ, and not just the IQ, which is the intellectual of the students to be recognised in the incorporation of Islamic and scientific knowledge. It is essential seeing the balanced EQ and the metaphysical inside the students themselves. In addition, the potential of students is not the main concern, but the real challenge is how to improve students' skills. Lecturer #2 stated:

“Capacity is not the issue because it was acknowledged by the university that indicated that students had the ability when they were fully enrolled in the university. The question is how to train or polish the ability to ensure that it is in line with the USIM agenda.”

It is stated that the student’s capacity is not the problem since the university understood that students had the capacity because they were completely enrolled in the university. Lecturer #1 opined on the capacity of the students in integrating Islamic and scientific knowledge:

“Students need to know that at first. It also depends on the year of the students. When students are in their third or fourth year, they are also capable of integration. Nevertheless, if students are first-year students and have a lack of exposure, they have less potential to do so.”

Students need to understand it on the first. It also relies on the school year. If students are in their third or fourth year of study, they are still capable of integration. However, if students are first-year students who have a lack of exposure, they have less ability to do so.

Lecturer #1 commented on the reality of the basic exposure of Islamic and scientific knowledge among students:

“If the scale of the indicator 1-5 is given, the level of students is only between 2 and 2.5. The definition should be grasped at all costs. Even the management had once asked the student about Islamic and scientific knowledge, but the answer was not satisfactory, and even the clear answer could not be given. It is therefore a challenge for lecturers to address this problem by emphasising the basic exposure of Islamic and scientific knowledge, especially in the first semester.”

The meaning should be known at all costs. Even the management had once questioned the student about Islamic and scientific understanding, but the answer was not sufficient, nor could a straight answer be given. It is therefore a challenge for lecturers to resolve this issue by emphasizing the fundamental exposure of Islamic and scientific knowledge, particularly from the first semester. In a nutshell, the capacity of the students was acknowledged but needs to be polished and empowered by the lecturers to achieve the goal of integration.

3) Source of Learning in Integrating Islamic and Scientific Knowledge

On the fourth issue, the researcher discovers the types of knowledge required to integrate Islamic and scientific knowledge. In addition, lecturers are central figures in influencing students and students to adapt the way they learn in the classroom. Nevertheless, the researcher explores the limits of knowledge in the integration of Islamic and scientific knowledge. The study of revelation could be highly inspiring and unveil the understanding that leads to guidance and excellence. Lecturer #1 stated:

“One of the qualities is to have knowledge where knowledge can be understood. For example, whether he/she comes from an Islamic background, the ability needed is to learn the English language. This would also make it possible for them to expand scientific knowledge and contribute to the topic taught by the lecturers, such as the topic Ulum Quran. He/she must understand the terminology used in the science section. As a result, it may be encouraged to become evidence/justification in Islamic topics. Those who come from FST, FPSK, FEM need to learn the Arabic language to understand Islamic knowledge.”

One quality is to provide knowledge where knowledge could be understood. For example, if it is from an Islamic context, the ability to learn English is required. This will also make it easier for them to extend their scientific understanding and add to the subject taught by lecturers, such as the Ulum Quran theme. It is a must to understand the language used.

4) Bilingual Proficiencies

Mastering Arabic and English is significant to integrate Islamic and scientific knowledge. It is one of the main issues raised by the lecturers about the proficiency of the students in using both languages. Lecturer #1 concurred with the statement:

“Students have trouble understanding one or all of the knowledge fields. For example, lack of knowledge in Arabic or English.”

Students have difficulties knowing all or more of the areas of expertise. For instance, inadequate knowledge of Arabic or English
Lecturer #2 remarked on the significance in mastering Arabic:

“In essence to be an additional skill is to equip students with the Arabic language, because most of the resources come from the Arabic language.”

Essentially, an additional ability is to equip students with the Arabic language since much of the services come from the Arabic language. The language barrier is seen as the most challenging factor for the students to have a bottomless understanding of the application and implementation of the integration of Islamic and scientific knowledge. As the students enrolled in the university, it was expected that the students should be bilingual to ease the two-way interactions between the lecturers and the students in the learning process.

5) **Creating a Conducive Learning Environment**

On the fifth issue, the researcher explores the guiding learning environment for the integration of Islamic and scientific knowledge for lecturers and students. In addition, the role of lecturer is to stimulate the idea of integrating Islamic and scientific knowledge, which can be practised by students to do the same thing. In integrative teaching-learning, the process of self-transformation happened when memorisation, understanding, thinking, and internalising take place in teaching and learning processes. This was supported by prominent scholars such as Al-Ghazali and Al-Al-Alwani. Al-Alwani explained the significance of exploring the coherence of the Quran as it involved approaches to the reading of the universe and approach to creation. It encouraged the human to observe nature and creation to reach the knowledge of the Lord, the Creator of this universe. This would be resulted in the development of the human capacity in possessing more understanding, enhanced intellectuality, and excellence pursuit in education (Gilani and Islam, 2018).

Lecturer # 2 spoke about creativity in the learning and teaching session:

“There is a need for innovation in the learning and teaching session. The emphasis need not only be on the lecture halls. Indeed, there are two ways of interacting between lecturers and students. Students themselves should try to explore knowledge, not just on the basis of the lecturer’s notes. The role of lecturers should be played where they serve as facilitators to encourage students to pursue information on their own. Problem-based thinking can be extended to the classroom. This application will make it easier for students to discover the issues and find the right solution.”

There is a need for creativity at the learning and training session. Not only can the focus be on the lecture halls. There are, in reality, two ways to communicate with lecturers and students. Students should strive to explore knowledge themselves, not only on the basis of the lecturer's notes.

6) Internalisation Process

The term internalisation is the process of connecting the logical thinking, the feeling inside the heart as well as the body to react to the principles of an individual's personality. Ultimately, it would enrich the process of triggering the awareness and willingness as part of the wisdom gained from the experience, thinking and facts (Baba et al., 2015).

Lecturer #4 reported on the variety of teaching and learning activities:

“Student assignments need to be involved/referred to experts, especially from Islamic studies. Exchange of questions from a science perspective and an Islamic context should be done in our surroundings.”

Student assignments must be made/referred to by scholars, in particular from Islamic studies. The sharing of questions from a scientific and Islamic viewpoint should take place in our environments. Internalisation could be one of the key factors in the learning process. The application, therefore, required that it be practical to instil good values and guidance in the conduct of good deeds.

7) Problems and Challenges in Integrating Islamic and Scientific Knowledge

The researcher highlights the sixth issue as the key problems and obstacles facing the integration of Islamic and scientific knowledge. The problems faced in integrating Islamic and scientific knowledge could be summarised as follows:

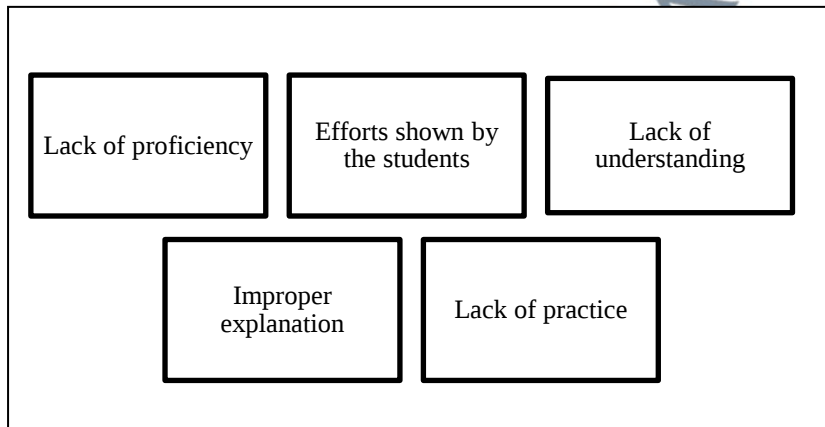


Figure 30: Problem Faced in integrating Islamic and Scientific Knowledge

a) *Lack of proficiency*

Lack of proficiency in both languages was the challenge that needed to be resolved to integrate Islamic and scientific knowledge. Lecturer #1 said:

“Students were confronted with difficulties due to lack of knowledge in Arabic or English.”

It can be said that students were met with difficulties due to lack of information in Arabic or English.

b) Efforts shown by the students

Besides that, the effort of the students is the main concern to make the objective of integrating Naqli and Aqli become successful. According to Al-Alwani, man should be pondering over creation. Lecturer #4 remarked:

“Students are not seeking to get interested in the learning process. They need to carry out work and make efforts to improve themselves.”

Besides, students did not even notice that they were particularly interested in research. They have to carry out their duties and make efforts to change themselves.

c) Lack of practice

Lecturer #2 stressed the lack of skills among students:

“Students are not well-equipped with the fundamentals of the most important skills. Just like Aqidah. They believe in God, but they do not do it. It does not display any true confidence. True conviction is where they must prove themselves by doing it. It is also necessary to strengthen the Ibadah and Akhlak parts. Must have the experts to show the students how integration is going to happen.”

Students are not well trained with the foundations of the most essential skills. Just like Aqidah matter. They trust in God, but they do not really. It does not demonstrate any true confidence. True confidence is where they have to justify themselves by doing this. It is also important to improve the sections of Ibadah and Akhlak. Must make the professionals show the students how integration is going to work.

d) Lack of understanding

The lack of comprehension and the incorrect interpretation has contributed to the application of Islamic and scientific information which is not applicable. Gilani and Islam (2018) pointed out that Al-Alwani discussed prudence, where it ignited the wisdom of human thinking through the discovery of divine imagination. On the subject raised between students and lecturers, lecturer # 3 said:

“Lack of understanding and information on the convergence of Islamic and scientific knowledge.”

It is believed that level of comprehension and information on the incorporation of Islamic and scientific knowledge would lead to a failure to integrate Islamic and science knowledge.

e) Improper explanation

Lecturer # 2 claimed that the problems arise from a lack of comprehension:

“There is a lack of understanding and clarification about the proper interpretation of Islamic and scientific knowledge. Perhaps we should provide a benchmark or a standard for the definition. For example, the learning level indicates that elements that have been identified and tested for Islamic knowledge have been highlighted by 20% and that scientific knowledge is 80 per cent.”

There is a lack of understanding and clarification of the proper interpretation of Islamic and scientific knowledge. Perhaps a benchmark or a design standard should be developed.

For example, the degree of learning implies that elements that have been identified and tested for Islamic knowledge have been highlighted by 20% and that scientific knowledge is 80%.

Lecturer #2 explained:

“Some lecturers have assumed that integration is a process of ayatisation, in which some verses in the Quran are chosen to suit the scientific perspective. However, the implementation of the integration of Islamic and scientific knowledge is not yet reflected in the use of learning devices such as a computer and the use of Microsoft PowerPoint. Indeed, it is only seen as a machine tool for learning process.”

Some lecturers have believed that integration is a method of ayatisation, in which some of the verses in the Quran are selected to fit the scientific viewpoint. However, the convergence of Islamic and scientific knowledge has not yet been mirrored in the usage of learning instruments such as the machine and the use of Microsoft. Indeed, it is used only as a computer tool for the learning process. It could be inferred that the problems ought to be addressed with the right solution. Identifying the issues would help to resolve the question of knowledge integration.

The researcher tabulated the results of the above-mentioned skills to integrate Islamic and Science as follows:

Table 2: List of Skills

LIST OF SKILLS	#1	#2	#3	#4
A clear understanding of the difference between Islamic knowledge and Scientific knowledge.	/	/	/	/
Understanding on whether the idea supports Islam or not while reading the scientific (rational) writings.	/	/	/	/
Understanding on the integration of knowledge which combines the “two readings,” reading of the Qur’an and the created universe.	/	/	/	/
Understanding on the similarities and dissimilarities with any modern scientific knowledge while reading the Islamic (revealed text) writings.	/	/	/	/
Understanding on the interconnections between Allah, human beings, and the universe.	/	/	/	/
Understanding on the unity of themes of the Quran.	/			
Understanding on the universe and creation through the Qur’anic perspective.	/	/	/	/
Understanding on the relation between the methodology of revelation and methodology of universe, which are interconnected.	/	/		
Distinguishing between methodology revelation (wahyu) and methodology natural sciences.	/			/
Understanding on how the supreme values of the Quran (tawhid, tazkiyah and civilization) corresponds to each other.	/	/	/	/
Memorisation	/			/
Understanding on the sources of the knowledge written in Arabic and English.	/	/	/	/

II) Quantitative Study

1. Descriptive Analysis

Descriptive statistics are used to explain the normal distribution of the scores collected by the researcher. For this analysis, the results of the reliability, mean, standard deviation and frequency of the data obtained will be provided. The researcher has divided three major descriptive statistics as follows:

- a. **Measures of Tendency** by using the mean value to frame the most indicated responses from the respondents.
- b. **Measures of Dispersion** by the value of standard deviation to capture how the data spread out. Standard Deviation was the average distance from the mean.
- c. **Measures of Frequency** by the frequency distribution to show how often the responses were given by the respondents.

2. Mean and Standard Deviation

The frequencies of responses for the level of skills from the respondents were tabularised in a simple tabular form as in Table 3:

Table 3: The result of Descriptive Statistics

Descriptive Statistics				
	N	Minimum	Maximum	Mean
I am familiar with the methods of integration of Islamic and Scientific knowledge.	285	1.00	5.00	3.8842
I understand well the concept of integration of Islamic and Scientific knowledge.	285	1.00	5.00	4.0035
I am aware of the methods of Islamization of knowledge.	285	1.00	5.00	3.7263
I am aware of the concept of Islamization of knowledge.	285	1.00	5.00	3.9263

I know the pioneers of the integration of knowledge.	285	1.00	5.00	3.4737
I know fundamental sources of the reference used to the integration of knowledge	285	1.00	5.00	3.8456
I understand the difference between Islamic knowledge and Scientific knowledge	285	1.00	5.00	4.1614
While reading the scientific (rational) writings, I understand whether the idea supports Islam or not	285	1.00	5.00	4.0947
I am aware of the Graduate in Integration of Islamic and Scientific development.	285	1.00	5.00	3.9439
While reading the Islamic (revealed text) writings, I understand their similarities and dissimilarities with any modern scientific knowledge.	285	1.00	5.00	4.0175
Integration of knowledge combines the “two readings,” reading of the Qur’an and the created universe.	285	1.00	5.00	4.0912
I try to understand the universe and creation through the Qur’anic perspective.	285	1.00	5.00	4.1789
I understand the interconnections between Allah, human beings, and the universe.	285	1.00	5.00	4.3193
I understand the relation between the methodology of revelation and methodology of the universe, which are interconnected.	285	1.00	5.00	4.0211
I understand the unity of themes of the Quran.	285	1.00	5.00	4.0877
I can distinguish between methodology revelation (wahyu) and methodology natural sciences.	285	1.00	5.00	3.8772
I think the more knowledge we gain on revelation (wahyu), and the universe, the more grow our capacity to integrate between revelation and science.	285	1.00	5.00	4.1789

I think the skills in both Arabic and English languages are necessary to integrate Naqli and Aqli.	285	1.00	5.00	4.2105
I understand how the supreme values of the Quran (tawhid, tazkiyah and civilization) corresponds each other.	285	1.00	5.00	3.9649
I am comfortable with the sources of the knowledge written in Arabic.	285	1.00	5.00	3.5263
I am comfortable with the sources of the knowledge written in English	285	1.00	5.00	3.8807
I think memorizing skills needed to understand the integration of Islamic and Scientific knowledge.	285	1.00	5.00	3.9544
In integrative teaching-learning, the process of self-transformation happened when memorization, understanding, thinking, and internalizing take place in teaching and learning processes.	285	1.00	5.00	4.0421
The subjects offered by my faculty focus enough on the integration of Islamic and Scientific knowledge.	285	1.00	5.00	4.0667
The lecturers help the students to gain more understanding about integrating naqli and aqli by giving the related assignments	285	1.00	5.00	4.1368
The lecturers encourage the students to memorize related verses to be attached together in explaining the modern knowledge	285	1.00	5.00	4.1158
The lecturers combine Naqli and Aqli perspectives	285	1.00	5.00	4.1579
Valid N (listwise)	285			

3. Frequency Distribution

The researcher tabulated the response given to measure the level of student skills in the integration of Islamic and scientific knowledge. The researcher presented and categorised the findings based on the skills required as identified from the qualitative data analysis. The researcher showed a frequency list supplemented by statistics in a histogram. A histogram was selected to represent the abilities that need to be developed after the modification has been tested. In particular, the researcher used a graphical approach that was useful in analysing the frequency distribution. A graphical method was used to frame the numerical facts in a clearer, more concrete, and understandable form.

The questionnaire was extended from the results of the qualitative analysis and clarified based on the maximum and lowest values of the standard deviation to measure the variance. In addition, the researcher stresses the degree of consensus between the respondents to measure the level of skill in the synthesis of Islamic and scientific knowledge. Throughout this report, the researcher highlighted the degree of agreement among the respondents on the skills statements that are of primary concern for the integration of Islamic and scientific knowledge. Nevertheless, the discrepancies and attitudes of the students will be discussed by the researcher in Chapter 5 as the problems that need to be resolved as well as the recommendations.

8) Results of the Questionnaire

The researcher provided details based on the questions posed in the survey questionnaire. Respondents' responses were tabulated and presented using the histogram. The researcher explicitly listed the degree of agreement among the respondents. The data is presented in the format of the frequency and percentage. Besides that, the graph captured the variation of the dispersed data.

Demography of the Respondents

The respondents were selected randomly from the final year students of the respective faculties. The result of the questionnaire was tabulated as below:

Age of the Respondents

Item (n=285)	Frequency	Percent
18-19 years old	20	7.0
20-21 years old	264	92.6
Total	285	100.0

Figure 31: Age of the Respondents

Gender of the Respondents

Item (n=285)	Frequency	Percent
Male	74	26.0
Female	210	73.7
Total	285	100.0

Figure 32: Gender of the Respondents

Samples taken for quantitative purposes are saturated as the goal of the study is to complement the results of the qualitative study. The researcher selected the respondents regardless of any gender and age. However, the researcher focused only in discover the skills in integrating Islamic and Scientific knowledge possessed by the respondents. Furthermore, the research was designed not to be biased by any gender or age.

Table 4: A Result Regarding the Concept of Integration of Islamic and Scientific Knowledge

Concept of Integration of Islamic and Scientific knowledge (n=285)	Frequency	Percent
Strongly Disagree	8	2.8
Disagree	9	3.2
Neutral	21	7.4
Agree	183	64.2
Strongly Agree	64	22.5

The result showed that 22.5 per cent of respondents were willing to respond to the argument with Strong Consensus, while 64.2 per cent of respondents replied with Consensus. This may be viewed as most respondents agreed with the delineated assertion that the principle of convergence of Islamic and scientific knowledge should be clear prior to application and implementation.

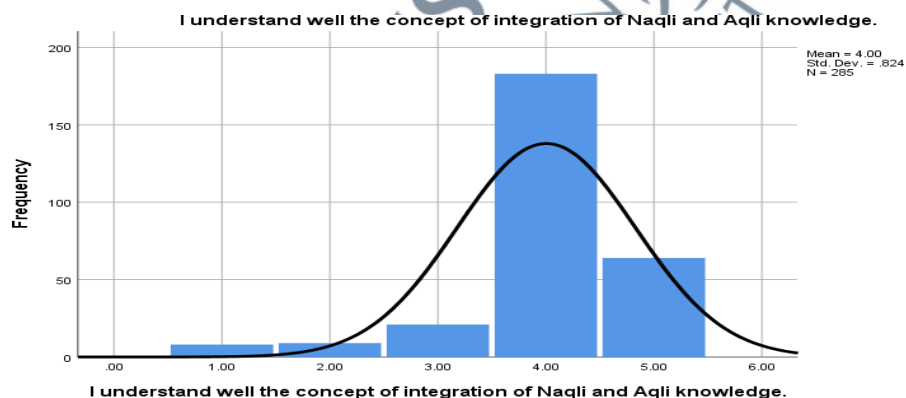


Figure 33: A graph regarding the concept of integration of Islamic and scientific knowledge

Notably, a small number of respondents were not in agreement and preferred to be neutral. The sum of the standard deviation was .824, reflecting the disparity between the data points and the range of minds of the respondents.

Table 5: A Result Regarding the Concept of Islamisation

I am aware of the concept of Islamisation of knowledge(n=285)	Frequency	Percent
Strongly Disagree	8	2.8
Disagree	12	4.2
Neutral	36	12.6
Agree	166	58.2
Strongly Agree	63	22.1

The result showed 58.2 per cent of the respondents with agreement, while 22.1 per cent favoured Strong Consensus. Most of the respondents agreed with the argument that stressed recognising the idea of Islamisation of knowledge. In addition, understanding the concept of Islamisation would lead to a better understanding of the concept of the integration of Islamic and scientific knowledge.

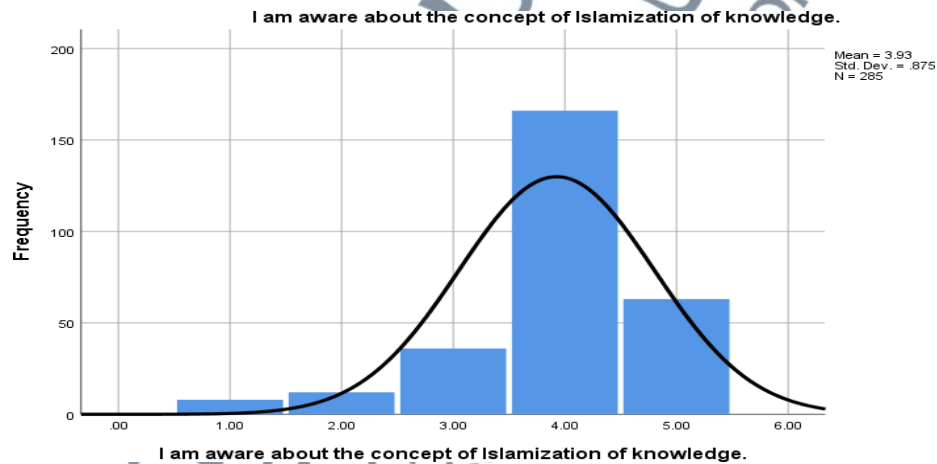


Figure 34: A graph regarding the concept of Islamisation

The standard deviation was .875, which showed a small group of respondents were not in agreement and prefer to be neutral.

Table 6: A Result Regarding the Methods of Islamisation

I am aware of the methods of Islamisation of knowledge (n=285)	Frequency	Percent
Strongly Disagree	9	3.2
Disagree	20	7.0
Neutral	57	20.0
Agree	153	53.7
Strongly Agree	46	16.1

The result showed that 16.1 per cent of respondents opted for strongly accept, while 53.7 per cent of respondents agreed on methods of Islamisation of knowledge. Hence, many respondents were exposed to methods of Islamisation of knowledge.

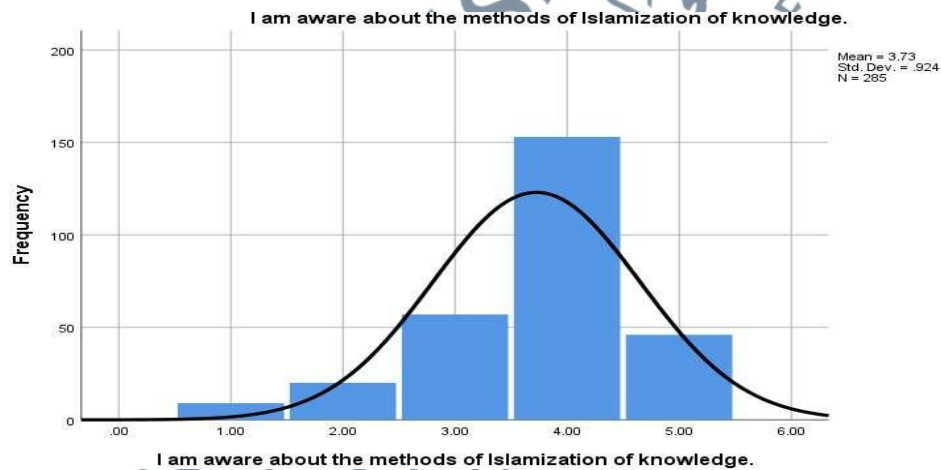


Figure 35: A graph regarding the methods of Islamisation

The standard deviation was .924, which could be considered a high rise, exemplified by other tolerances voted by the respondents.

Table 7: A Result of The Difference Between Islamic and Scientific Knowledge

I understand the difference between Islamic and Scientific knowledge(n=285)	Frequency	Percent
Strongly Disagree	6	2.1
Disagree	6	2.1
Neutral	23	8.1
Agree	151	53.0
Strongly Agree	99	34.7

The result showed that 34 per cent of respondents supported strongly accept, while 53 per cent agreed to accept the difference between Islamic and scientific knowledge. Most of the respondents were on the same page concerning this statement as they were part of the core knowledge of the integration of Islamic and scientific knowledge.

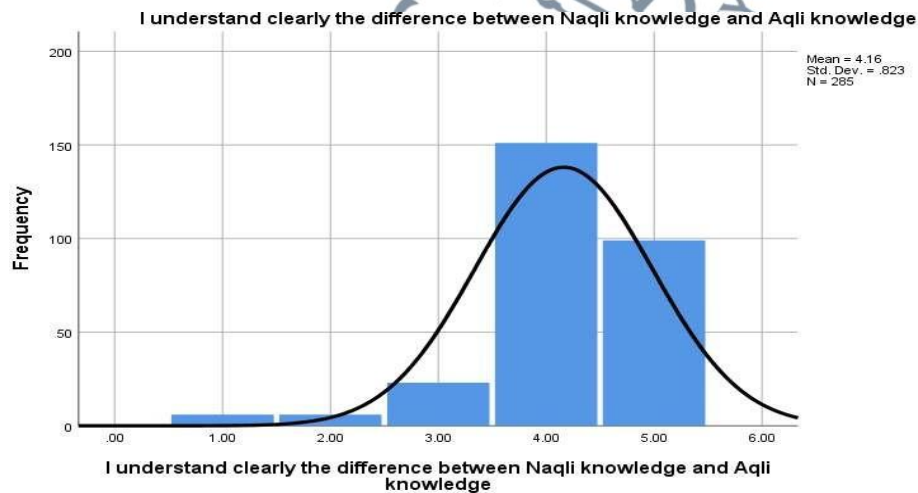


Figure 36: A graph on the difference between Naqli and Aqli knowledge

The standard deviation was .823, which indicated that the data points were diversified and that a small group of respondents preferred to be neutral or disagree.

Table 8: A Result of The Methods of Integration of Islamic and Scientific Knowledge

I am familiar with the methods of integration of Islamic and Scientific knowledge (n=285)	Frequency	Percent
Strongly Disagree	9	3.2
Disagree	13	4.6
Neutral	30	10.5
Agree	183	64.2
Strongly Agree	50	17.5

The result reported that 17.5 per cent agreed strongly, while 64.2 per cent agreed to agree on methods of integration of Islamic and scientific knowledge. The predominance of the respondents was very similar in that it was important to learn the method of incorporation of Islamic and scientific knowledge.

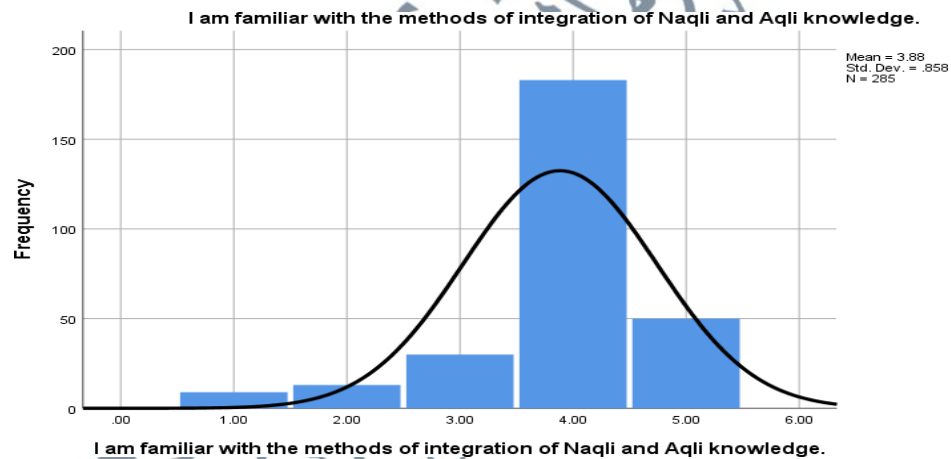


Figure 37: A graph on the methods of integration of Naqli and Aqli

The graph showed that the standard deviation was .858, which revealed the distribution of the data points among the respondents.

Table 9: A Result of The Pioneers of The Integration of Knowledge

I know the pioneers of the integration of knowledge (n=285)	Frequency	Percent
Strongly Disagree	9	3.2
Disagree	27	9.5
Neutral	94	33.0
Agree	130	45.6
Strongly Agree	25	8.8

The result showed that 45.6 per cent of the respondents agreed, while 8.8 per cent of the respondents preferred strongly disagree on the argument relating to knowledge integration pioneers.

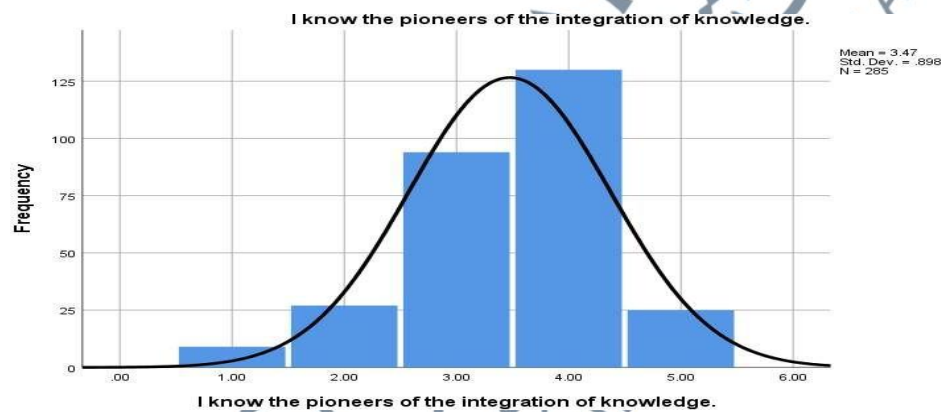


Figure 38: A graph on the pioneers of the integration of knowledge

The graph showed the least mean was 3.47. The standard deviation reported was .898. The number of respondents who approved was 155, while those who did not number 130. Ironically, it almost reached the majority that revealed the pioneers of knowledge integration. In essence, understanding the pioneers of knowledge integration will inevitably contribute to the perception of the highest sources of knowledge.

Table 10: A Result of The Understanding of The Idea

While reading the scientific (rational) writings, I understand whether the idea supports Islam or not(n=285)	Frequency	Percent
Strongly Disagree	7	2.5
Disagree	3	1.1
Neutral	23	8.1
Agree	175	61.4
Strongly Agree	77	27.0

The result showed that 61.4 per cent of the respondents agreed and 27.0 per cent agreed strongly on whether the idea supported Islam while reading the scientific writings. This showed that most of the respondents agreed with the statement and realised its significance.

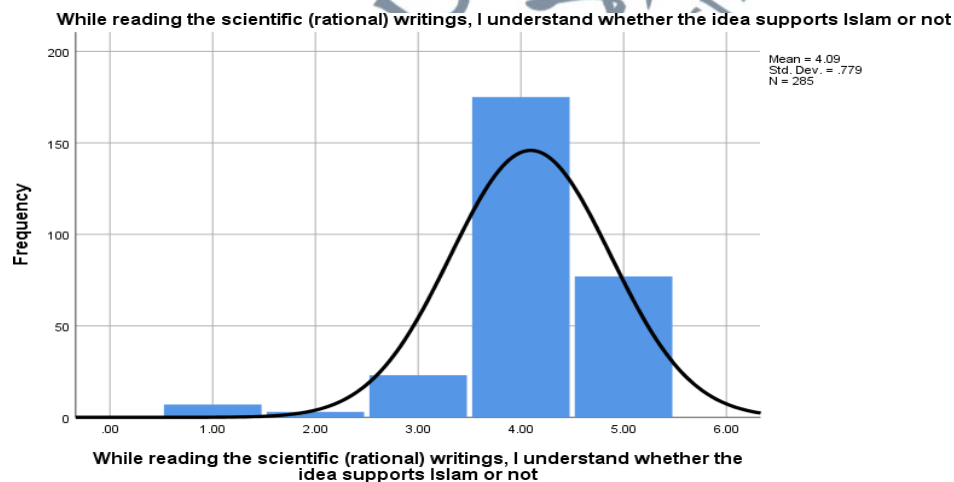


Figure 39: A graph on the understanding of the idea

Notably, the standard deviation was .779, representing the responses of the respondents, which concentrated on a few views.

Table 11: A Result of The Understanding of Two Readings

The Integration of knowledge combines the “two readings,” reading of the Qur’an and the created universe(n=285)	Frequency	Percent
Strongly Disagree	6	2.1
Disagree	4	1.4
Neutral	29	10.2
Agree	165	57.9
Strongly Agree	81	28.4

The result explained that 57.9 per cent of respondents agreed, while 28.4 per cent of respondents agreed to strongly agree on the reading of the Quran and the universe that had an impact on understanding the integration of knowledge. Most of the respondents agreed with this argument.

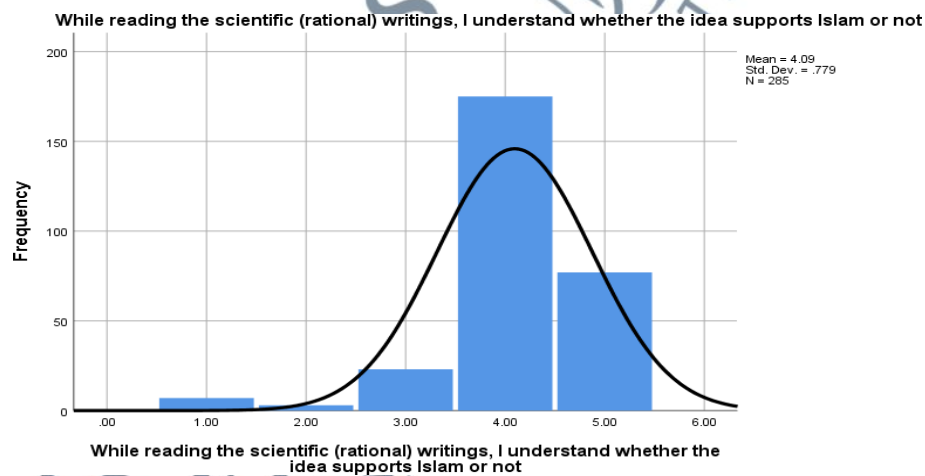


Figure 40: A graph on the understanding of two readings

Despite the majority, there was a small group who contributed to the standard deviation value of .779, which indicates that some of the respondents differed in their opinions.

Table 12: A Result of Understanding the Similarities and Dissimilarities Between the Scientific and Revealed Writings.

While reading the Islamic (revealed text) writings, I understand their similarities and dissimilarities with any modern scientific knowledge. (n=285)	Frequency	Percent
Strongly Disagree	7	2.5
Disagree	4	1.4
Neutral	34	11.9
Agree	172	60.4
Strongly Agree	68	23.9

The result showed that 60.4 per cent of respondents agreed, while 23.9 per cent agreed strongly on the interpretation of similarities and dissimilarities with some modern scientific knowledge when reading Islamic literature. Most respondents recognised the importance of this ability in combining Islamic and scientific knowledge.

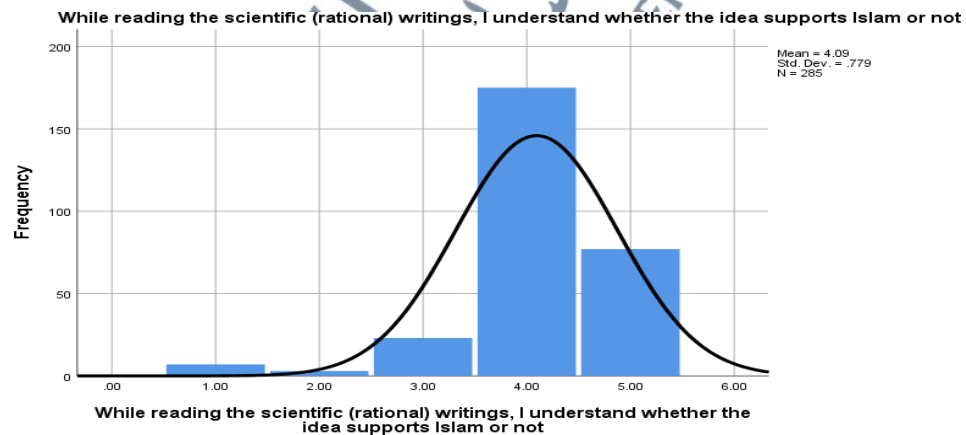


Figure 41: A graph on understanding the similarities and dissimilarities between the scientific and revealed literature

The standard deviation was .779, which showed less diversification because the majority held the same view.

Table 13: A Result of The Understanding of The Interconnections Between Allah, Human Beings, and The Universe.

I understand the interconnections between Allah, human beings and the universe (n=285)	Frequency	Percent
Strongly Disagree	8	2.8
Neutral	11	3.9
Agree	140	49.1
Strongly Agree	126	44.2

The result indicated that 49.1 per cent of the respondents had agreed, while 44.2 of the respondents decided to strongly agree. The degree of solid agreement was very much linked to the intense understanding of the connections between Allah, human beings, and the universe.

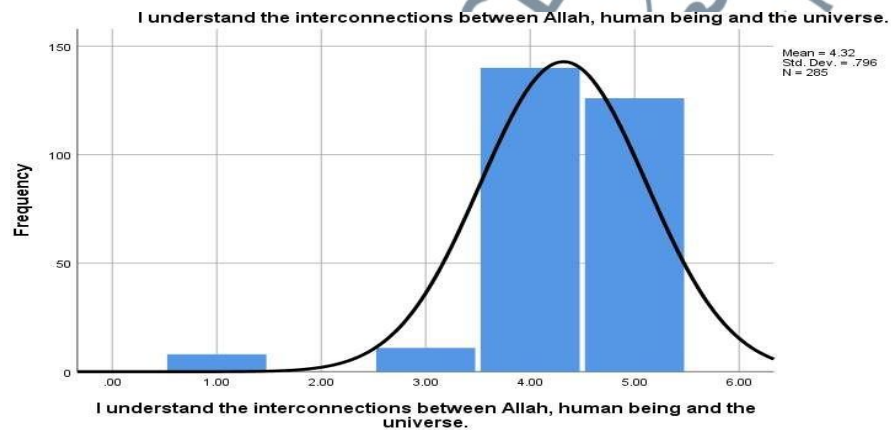


Figure 42: A graph on the understanding of the interconnections between Allah, human beings, and the universe.

The graph framed the highest mean of 4.32. This suggests that many of the respondents shared the same view with a standard deviation of .796, which contributed to an angle of difference between the respondents.

Table 14: A Result of The Relationship of Interconnection Between the Methodology of Revelation and Methodology of The Universe

I understand relation between the methodology of revelation and methodology of the universe, which are interconnected (n=285)	Frequency	Percent
Strongly Disagree	7	2.5
Disagree	7	2.5
Neutral	34	11.9
Agree	162	56.8
Strongly Agree	75	26.3

The result indicated that 56.8 per cent of the respondents had agreed, while 26.3 per cent of the respondents strongly agreed. The degree of solid agreement was very much related to a deep understanding of the relationship between the methodology of revelation and the methodology of the universe.

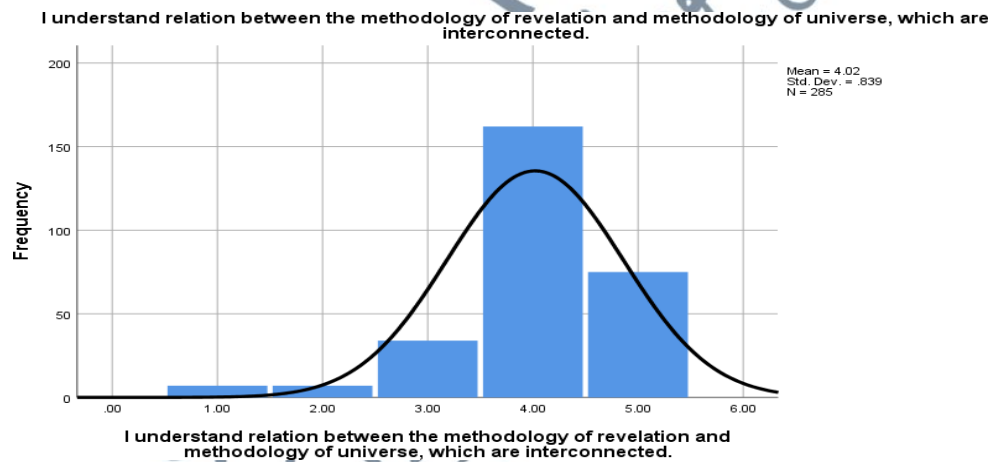


Figure 43: A graph on the relation of interconnection between the methodology of revelation and methodology of the universe

The graph has a high mean value of 4.02. This indicates that all the respondents shared the same view. The standard deviation was .839, which added to the disparity between the respondents.

Table 15: A Result of The Understanding of The Unity of Themes of The Quran

I understand the unity of themes of the Quran(n=285)	Frequency	Percent
Strongly Disagree	6	2.1
Disagree	3	1.1
Neutral	31	10.9
Agree	165	57.9
Strongly Agree	80	28.1

The result showed that 57.9 per cent of the respondents agreed, and 28.1 per cent of the respondents agreed strongly. Most respondents assumed that knowing the meaning of the Quran's themes was important.

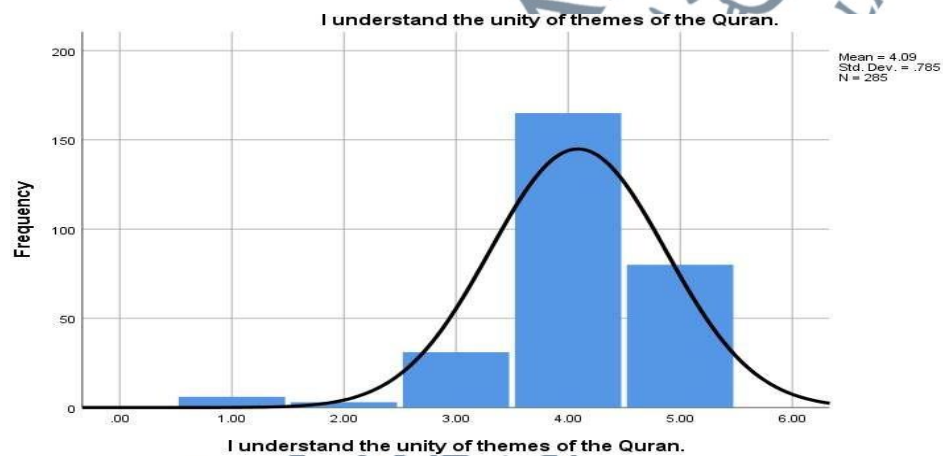


Figure 44: A graph on the understanding of the unity of themes of the Quran

From the graph, the standard deviation was .785, showing the variation of the data elements, and yet the points of view varied between the respondents.

Table 16: A Result of Understanding the Universe And Creation

I know fundamental sources of the reference related to the integration of knowledge (n=285)	Frequency	Percent
Strongly Disagree	7	2.5
Disagree	16	5.6
Neutral	46	16.1
Agree	161	56.5
Strongly Agree	55	19.3

The result showed that 19.3 per cent of respondents had chosen strong consensus, while 56.5 per cent of respondents agreed on the understanding of the universe and creation from the Quranic perspective. The fundamental sources encouraged a person to think through consciousness and wisdom. Al-Alwani has described prudence as part of the exploration of the integration of knowledge for both revelation and the universe.

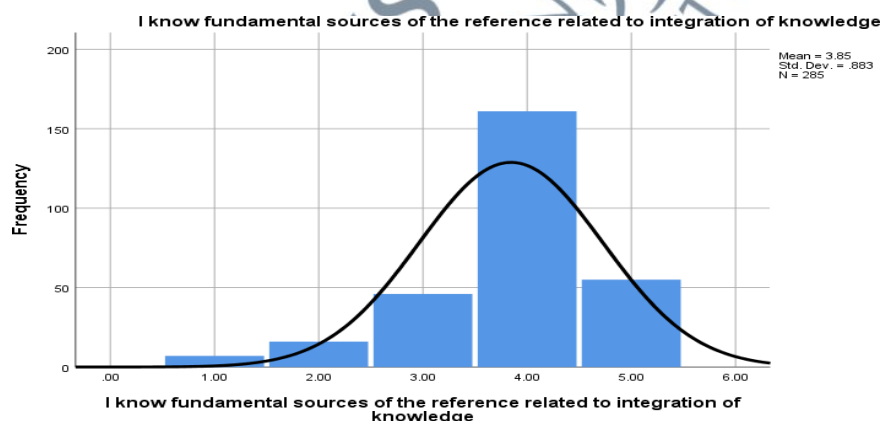


Figure 45: A graph on understanding the universe and the creation

The preponderance of the respondents was consistent with the assertion listed in the survey questionnaire that the respondents were aware of the fundamental sources for the integration of knowledge. The standard deviation reported was .883, which defined the difference between the respondents.

Table 17: A Result of The Awareness of Graduates In The Integration of Islamic And Scientific Development

The awareness of the GIINA Model among students(n=285)	Frequency	Percent
Strongly Disagree	9	3.2
Disagree	9	3.2
Neutral	39	13.7
Agree	160	56.1
Strongly Agree	68	23.9

The result showed that 56.1 per cent of respondents agreed positively and 23.9 per cent of respondents agreed strongly. Most respondents believed that the knowledge of graduates in the integration of Islamic and science development was significant.

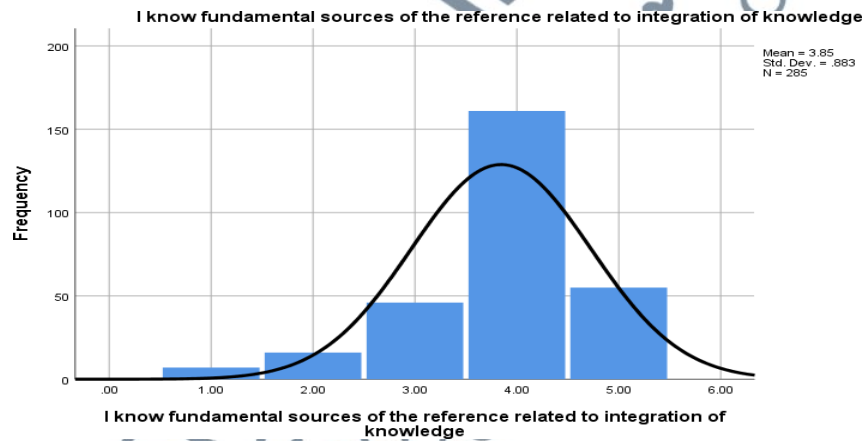


Figure 46: A graph on the awareness of graduates in the integration of Islamic and scientific development

The great majority of the respondents were consistent with the argument in the questionnaire distributed. The stated standard deviation was .883, which specified the variance between the respondents.

Table 18: A Result of the Understanding of The Universe and Creation Through the Qur'anic Perspective

I try to understand the universe and creation through the Qur'anic perspective(n=285)	Frequency	Percent
Strongly Disagree	6	2.1
Disagree	1	4
Neutral	16	5.6
Agree	175	61.4
Strongly Agree	87	30.5

The results revealed that 61.4 per cent of the respondents agreed and 30.5 per cent of the respondents agreed strongly. Most respondents were of the opinion that understanding the universe and existence through the Qur'anic perspective is essential.

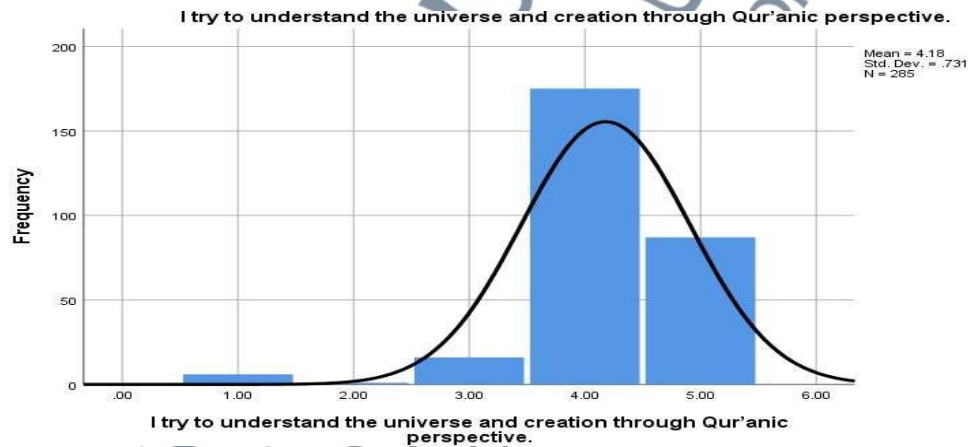


Figure 47: A graph on understanding the universe and the creation through the Qur'anic perspective

The vast number of respondents were consistent with the claim in the survey questionnaire. The stated standard deviation was .731, which specified the gap between the respondents.

Table 19: A Result of Revelation Between the Methodology of Revelation and The Universe

I think the more knowledge we gain on revelation (wahyu), and the universe, the more we grow our capacity to integrate between revelation and science(n=285)	Frequency	Percent
Strongly Disagree	6	2.1
Disagree	2	.7
Neutral	24	8.4
Agree	156	54.7
Strongly Agree	97	34.0

The outcome was that the majority of the respondents agreed that 34.0 per cent of the respondents were inclined to strongly agree, while 54.7 per cent of the respondents decided on an interpretation of the interconnections between the methodology of disclosure and the methodology of the universe. When the individual was equipped with knowledge of revelation and the universe, he/she could enhance the capacity to integrate Islamic and scientific knowledge.

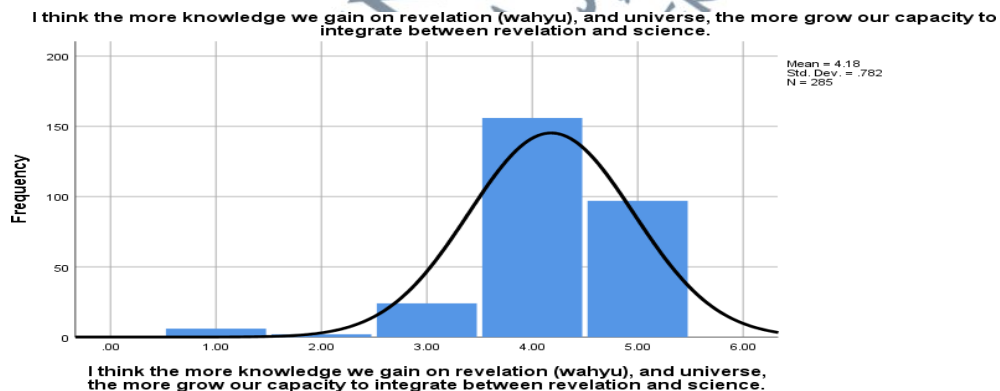


Figure 48: A graph on the revelation between the methodology of revelation & the universe

Based on the graph, the value of the standard deviation was .782, which sensed the data points to be less extended. The majority of respondents recognised the key to understanding the interconnections and the comparison used to improve the skills needed to combine Islamic and scientific knowledge.

Table 20: A Result of The Methodology Revelation and Natural Science

I can distinguish between the methodology if revelation (wahyu) and the methodology of natural sciences.	Frequency	Percent
Strongly Disagree	7	2.5
Disagree	6	2.1
Neutral	56	19.6
Agree	162	56.8
Strongly Agree	54	18.9

The result indicated that 18.9 per cent of respondents strongly agreed, while 56.8 per cent of respondents agreed on the importance of distinguishing between the disclosure methodology and the natural science methodology. Most of the respondents were aware of the prescribed statement in the survey questionnaire.

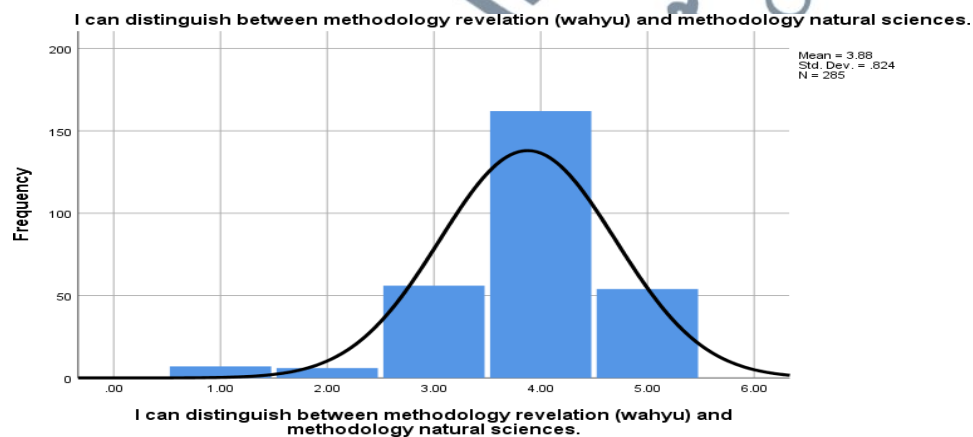


Figure 49: A graph on the methodology revelation and natural science

From the graph, the mean value was 3.88, but the standard deviation was .824. Thus, the high standard deviation evoked a widespread dispersion of the data. It was a relatively significant number of respondents who chose neutral to take a direct stance on the comment.

Table 21: A Result of An Understanding of The Supreme Values

I understand how the supreme values of the Quran (tawhid, tazkiyah and civilization) correspond to each other(n=285)	Frequency	Percent
Strongly Disagree	6	2.1
Disagree	9	3.2
Neutral	44	15.4
Agree	156	54.7
Strongly Agree	70	24.6

The outcome interpreted that 24.6 per cent of respondents had preferred strong consensus and 54.7 per cent of respondents had settled on an interpretation of the supreme principles of the Quran that corresponded to each other. Most respondents recognised the importance of the supreme meaning of the Quran as the ability needed for the integration of Islamic and scientific knowledge.

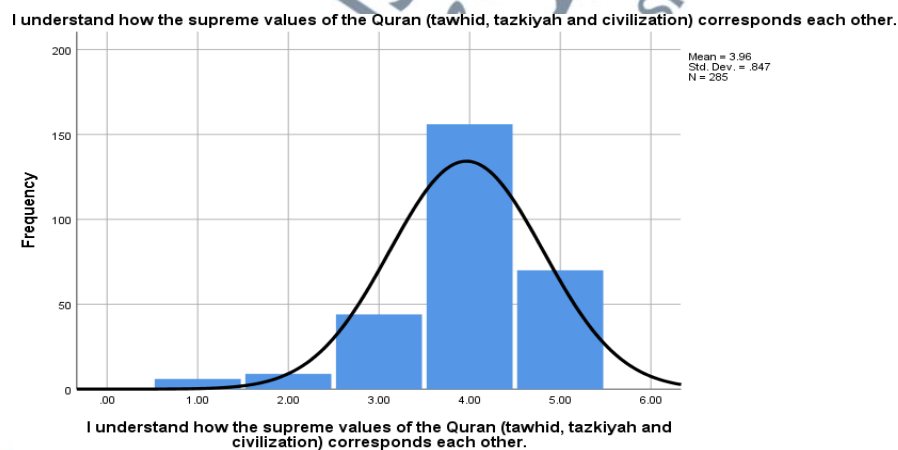


Figure 50: A graph on an understanding of the supreme values

Based on the graph, the mean value was 3.96, but the value of the standard deviation was .847, indicating that the data points were widely distributed. There was a 15.4 per cent preference over neutral that influenced the variance.

Table 22: A Result of Memorisation In Integrating Both Islamic And Scientific Knowledge

I think memorising skills needed to understand the integration of Islamic and Scientific knowledge (n=285)	Frequency	Percent
Strongly Disagree	10	3.5
Disagree	9	3.2
Neutral	43	15.1
Agree	145	50.9
Strongly Agree	78	27.4

As a result, 27.4 per cent of respondents preferred strong consensus and 50.9 per cent agreed on memorising skills as the required ability to integrate Islamic and scientific knowledge. Most respondents were told about the practice of memorising skills in the learning process in order to enable the integration of Islamic and scientific subjects.

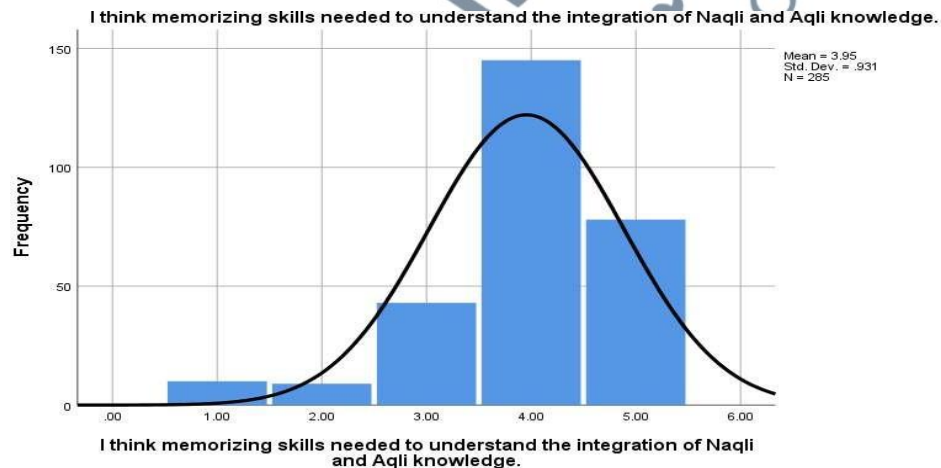


Figure 51: A graph on memorisation in integrating both Islamic and scientific knowledge

From the graph, the mean value was 3.95, while the standard deviation was .931. The value was high, indicating the outlook that was set in the divergence of the data.

Table 23: A Result of An Understanding the Sources of the Knowledge

I think skills in both Arabic and English languages are necessary to integrate Naqli and Aqli (n=285)	Frequency	Percent
Strongly Disagree	7	2.5
Disagree	6	2.1
Neutral	19	6.7
Agree	141	49.5
Strongly Agree	112	39.3

The result showed a high degree of agreement that 39.3 per cent of respondents had decided to strongly agree and 49.5 per cent of respondents had agreed to use bilingual languages in the medium of knowledge integration.

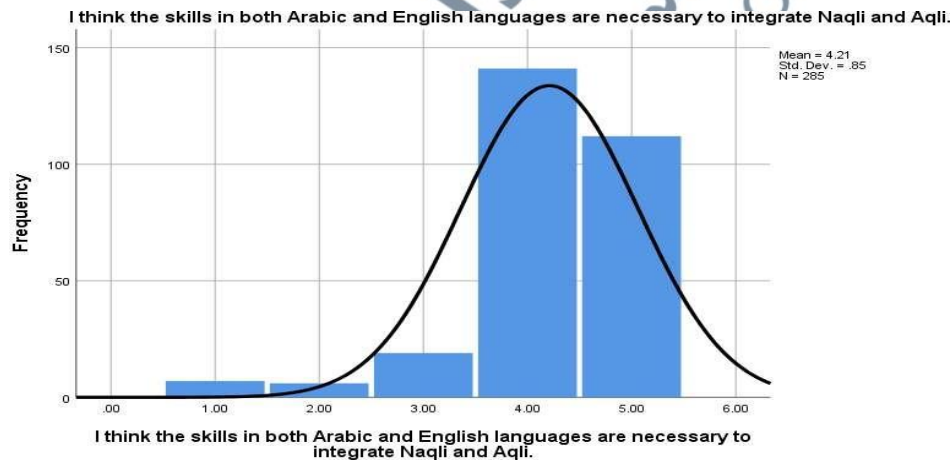


Figure 52: A graph on an understanding the sources of the knowledge

The standard deviation was .85, which stipulated that the data points had been generated. The majority of the respondents were aware of the expertise they required, in which the experience of both languages was essential for exploring the integration of knowledge.

Table 24: A Result of An Understanding of Sources Written In Arabic

I am comfortable with the sources of the knowledge written in Arabic(n=285)	Frequency	Percent
Strongly Disagree	13	4.6
Disagree	34	11.9
Neutral	61	21.4
Agree	144	50.5
Strongly Agree	33	11.6

As a result, 11.6 per cent of respondents preferred strong consensus, while 50.5 per cent of respondents chose to use the Arabic language as a source of information. Most of the respondents agreed that it was necessary to master the sources written in Arabic.

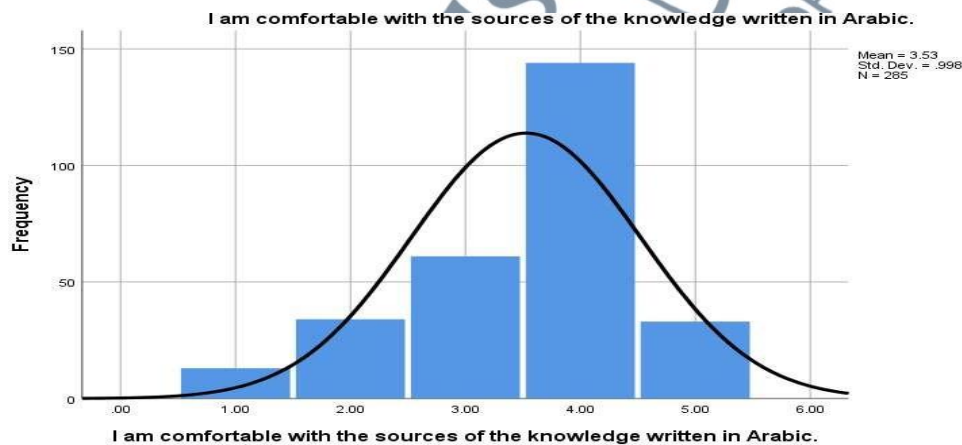


Figure 53: A graph on an understanding of sources written in Arabic

The standard deviation was .998, which was high. The data points have been significantly expanded. Besides, 177 respondents decided to use the Arabic language to translate information sources. However, some 108 were not comfortable using Arabic sources.

Table 25: A Result of An Understanding of Sources Written In English

I am comfortable with the sources of knowledge written in English(n=285)	Frequency	Percent
Strongly Disagree	8	2.8
Disagree	9	3.2
Neutral	46	16.1
Agree	168	58.9
Strongly Agree	54	18.9

The result showed that 18.9 per cent of respondents favoured strong consensus and 58.9 per cent relied on the ability to use English in the translation of knowledge sources. Approximately 222 respondents decided to use the English language as a tool for knowledge integration.

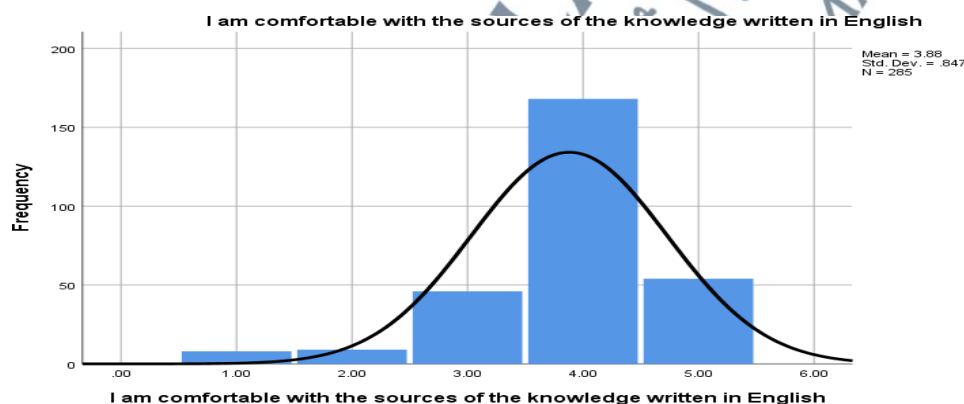


Figure 54: A graph on an understanding of sources written in English

The standard deviation was .847, which delineated the preference of the respondents to each other. The majority were comfortable using the English language as a medium, but some respondents favoured neutral, which provided the variance of the data marker. In summary, the researcher defined the knowledge of both languages as a necessary requirement for the learner to gain a deeper understanding of the origins of knowledge integration.

Table 26: A Result of The Internalisation Aspect In The Integrative Learning Process

In integrative teaching-learning, the process of self-transformation happened when memorisation, understanding, thinking, and internalizing take place in teaching and learning processes(n=285)	Frequency	Percent
Strongly Disagree	7	2.5
Disagree	6	2.1
Neutral	26	9.1
Agree	175	61.4
Strongly Agree	71	24.9

As a result, 24.9 per cent of respondents predicted strong consensus and 61.4 per cent agreed on a statement that highlighted the importance of memorisation, comprehension, reasoning and internalisation in the teaching and learning process.

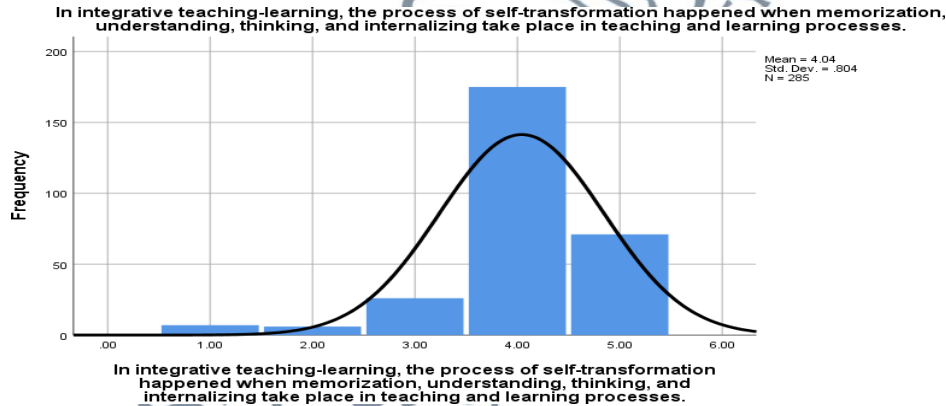


Figure 55: A graph on the internalisation aspect in the integrative learning process

The standard deviation from the graph was .804, indicating the variance of the results. With this required ability in combining Islamic and scientific knowledge, the majority of respondents agreed with the process of integration being based on knowledge acquisition and absorption that eventuates into transformation.

The Student's Perceptions

Given the skills required, the researcher emphasised students' perceptions of some of the issues that would be discussed in Chapter Five. In general, the student's expectations of the subjects, and the crucial position of the lecturers have been accentuated. Four perceptions are illustrated as follows:

Table 27: A Result of The Subjects Offered By The University

The subjects offered by my faculty focus enough on the integration of Islamic and Scientific knowledge(n=285)	Frequency	Percent
Strongly Disagree	5	1.8
Disagree	12	4.2
Neutral	30	10.5
Agree	150	52.6
Strongly Agree	88	30.9

As a result, 30.9 per cent of respondents favoured strong consensus, and 52.6 per cent agreed on subjects offered by faculties that provided students with adequate emphasis on understanding the integration of Islamic and scientific knowledge.

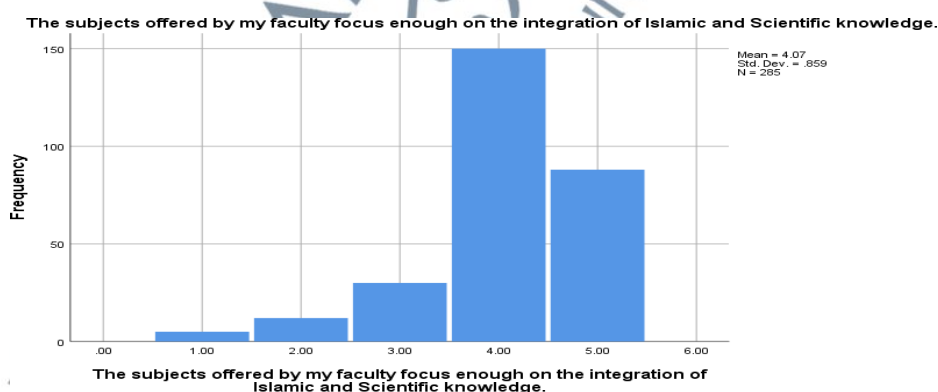


Figure 56: A graph on the subjects offered by the university

Most respondents agreed that the faculties had facilitated the integration of Islamic and scientific knowledge among students. Nonetheless, the standard deviation was .859, showing that a limited number of respondents varied in their preferences.

Table 28: A Result of Understanding of Islamic And Scientific Knowledge Through Assignments

The lecturers help the students to gain more understanding about integrating Islamic and Scientific knowledge by giving the related assignments (n=285)	Frequency	Percent
Strongly Disagree	7	2.5
Disagree	8	2.8
Neutral	26	9.1
Agree	142	49.8
Strongly Agree	102	35.8

The outcome was a clear consensus when 35.8 per cent of respondents voted to strongly agree, and 49.8 per cent agreed on the position of lecturers that helped students gain a deeper understanding of the integration of Islamic and scientific knowledge through assignments.

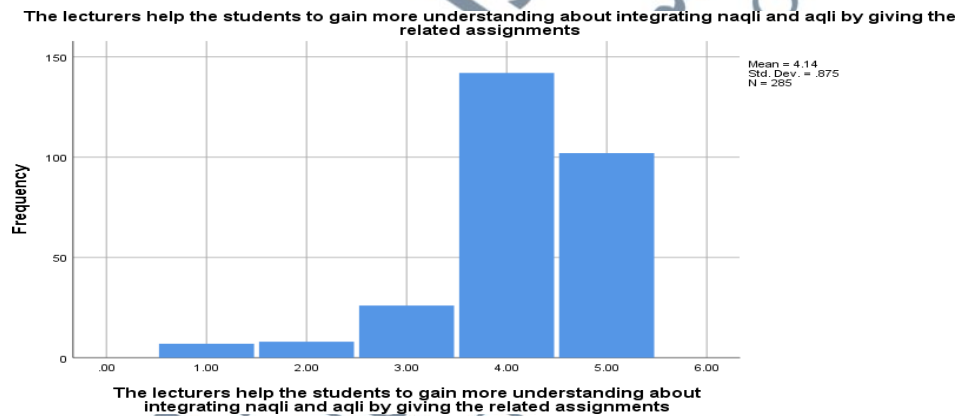


Figure 57: A graph on an understanding Islamic and scientific knowledge through assignments

The value of the standard deviation was .875. The majority of the respondents agreed with the statement that the lecturers played an important role in shaping the thought of the students, and the guidance of the lecturers could lead the students to the platform promoted by USIM in order to be a holistic, entrepreneurial and balanced graduate.

Table 29: A Result of Lecturer's Efforts In Combining Islamic And Scientific Perspectives

The lecturers combine Islamic and scientific perspectives(n=285)	Frequency	Percent
Strongly Disagree	7	2.5
Disagree	4	1.4
Neutral	24	8.4
Agree	152	53.3
Strongly Agree	98	34.4

The result stated that 34.4 per cent of the respondents were in strong in agreement, while 53.3 per cent agreed on the responsibility of the lecturers to integrate both Islamic and scientific knowledge in the teaching process.

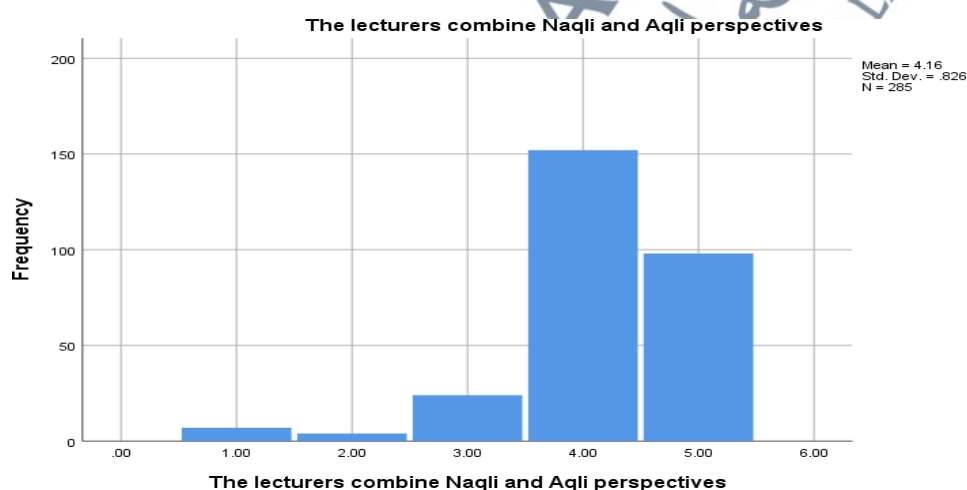


Figure 58: A graph on lecturer's efforts in combining Islamic and scientific perspectives

The standard deviation from the graph was .836. The degree of consensus made up of strongly agree, and common understanding led to the variability of the results as well as to the other preference of the respondents. Significantly, the methodology used by the lecturers will have an effect on the students' understanding and comprehension of the integration of Islamic and scientific knowledge. The medium of the classroom could be deployed to shed light on the integration of knowledge among students.

Table 30: A Result of A Lecturer's Role In Encouraging The Students to Memorise

The lecturers encourage the students to memorise related verses to be attached in explaining modern knowledge(n=285)	Frequency	Percent
Strongly Disagree	7	2.5
Disagree	10	3.5
Neutral	30	10.5
Agree	134	47.0
Strongly Agree	104	36.5

The result showed that 36.5 per cent of respondents preferred strongly agree, and 47 per cent decided to allow the lecturer to memorise similar verses to be connected to modern knowledge in order to acquire a better understanding through the learning process.

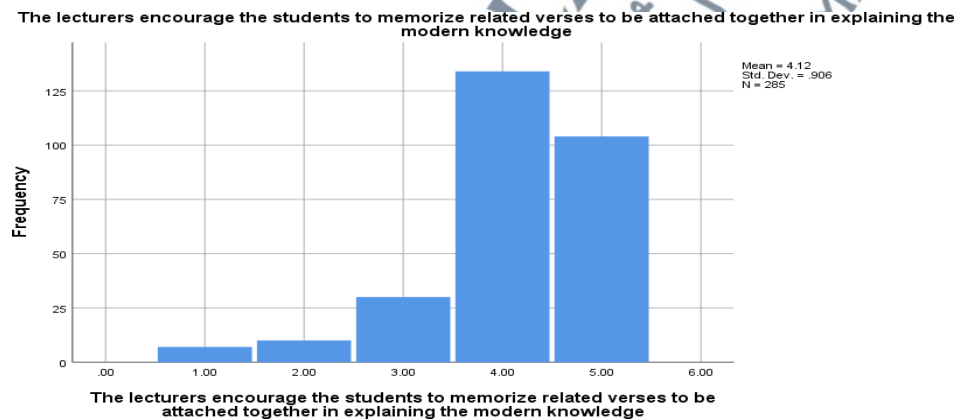


Figure 59: A graph on lecturer's role in encouraging the students to memorise

The standard deviation was .906, which resulted in data variability. The importance of memorisation in the learning process for the integration of Islamic and scientific knowledge could not be rejected. Most of the respondents were on the same page and concurred with the addition of similar verses that were memorised in the clarification of modern understanding. In short, the imagination and approach used by the lecturers could shape cognitive skills and activate the potential and skills of the students.

Summary

Chapter Four examined the results of the mixed methods used by the researcher. The results of the qualitative study were processed in Microsoft Word after the transcription process and categorised into respective themes. In addition, the findings of the quantitative study were stored in Google Form before being transported to Microsoft Excel and analysed using SPSS.

