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0 1 1 MANUSCRIPT TO REVIEW AL-QUR'AN AS A PARADIGM BASE FOR SCIENCE INTEGRATION AT THE AL- QUR'AN SCIENCE UNIVERSITY, CENTRAL JAVA, INDONESIA [

information redacted to maintain the integrity of the review process] The discourse on the integration of science and Islam is

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being realized in the establishment of various Islamic religious universities in Indonesia. One of the Islamic Universities that accommodates this discourse is the Al-Qur'an Science University, Central Java, Indonesia (UNSIQ). This study aims to examine the the basic concept of scientific integration at UNSIQ and critically analyze the academic tradition and research development patterns based on the Lakatos research development pattern. This research shows that the scientific base at UNSIQ has been structured in an awareness that supports the establishment of a distinctive academic tradition and scientific culture in the frame al-Qur'an based academic knowledge. However, researches as auxiliary hypotheses in building scientific paradigm are still limited in certain disciplines and need to be improved. This needs to be a common concern in order to increase the scientific base of the syajarah al-Qur'an into a solid scientific paradigm. Contribution: This research figured out that the scientific base at UNSIQ has been structured in an awareness that supports the establishment of a distinctive academic tradition and scientific culture, but this scientific base needs to be supported by research plan and researches in various disciplines. Thus, those researches become the auxiliary hypotheses to build a particular scientific paradigm of this university. Keywords: scientific integration; philosophy of science; Lakatos; Islamic University; UNSIQ Wonosobo 2 INTRODUCTION

The discourse on the integration of science and religion has

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become the concern of many Islamic thinkers and universities in Indonesia recently. Syed

Naquib al-Attas, Isma'il Raji al- Faruqi , and Ziauddin Sardar

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are three prominent Islamic thinkers who are widely used as references in the pattern of integration of Islam and science in universities in Indonesia (Mas'ud, Fuad, and Zaini 2019; Mufid 2014). Al-Faruqi coined the concept of Islamization of knowledge by going through 5 stages, those are 1) mastering modern scientific disciplines; 2) master the basic

knowledge of Islam; 3) determine the specific relevance of Islam according to the field of knowledge; 4) find ways of creative synthesis; and 5) directing Islamic thought on a path that leads to the fulfillment of Allah's design pattern (Al-Faruqi 1982). The two main ideas are the integration of the two educational systems and instilling the vision of Islam within the disciplines (Inayah 2020). The same thing was expressed by al-Attas, who stated that the Islamization of science must go through two interrelated processes. The two processes are isolating the key concepts that emerged from Western civilization (de-westernization) and incorporating the key elements and concepts of Islam into every branch of science (Wan Daud 1998, 2013). The output of these two models is Islamic science (al-Ma'rifah al-Islamiyyah) (Haris 2010). The difference between the two concepts lies only from the background of the urgency of an Islamization, al-Attas views it from external factors, namely Western civilization, while al-Faruqi views it from internal factors (Soleh 2017). As for Ziauddin Sardar, there are differences with the two mentioned concepts. Sardar criticized al-Faruqi's model of Islamization of science and provided a solution that the Islamization of science must depart from building an Islamic epistemology. This is in order to create a contemporary Islamic science as a counter to modern Western science (Soleh 2017). However, the theory of integration of science and religion above is not absolutely practiced in Islamic universities in Indonesia. The majority of Islamic universities in Indonesia have initiated the concept of integrating various sciences, such as using the spider web metaphor, tree of knowledge, cart wheel, twin-towers, and so on (Muslih 2017; Nata 2019). The whole model aimed at eliminating the dichotomy between the religious sciences and the general sciences (U. Hanifah 2018). This discourse is often carried out in Islamic universities in 3 Indonesia. The transformation of Islamic Higher Institutions (IAIN) into Islamic University (UIN) is also inseparable from this discourse with their respective trademarks and various implementations (Muslih 2017). According to al-Attas, university (kulliyah/jami'ah) is a concrete implementation of the basic concepts of Islam, from which the key elements of Islam are incorporated into every sciences (Al-Attas 1993; Wan Daud 2013). Therefore, Islamic universities in Indonesia play an important role in determining the success of this scientific discourse which gave birth to a new scientific cluster based on a comparative-critical social scientific paradigm called "Dirasat Islamiyyah" (Abdullah 2014, 2017). The important thing in this focus is, as mentioned by Sudarto (Sudarto 2020), the Islamization of Science has become a necessity for current Islamic education, including higher education, to break away from the hegemony of the worldview of Western civilization. Nata (Nata 2019) revealed that various models of the integration approach of Islamic science and religion in universities in Indonesia still stop at the theoretical aspects and the practical aspects of their operations have not been seen clearly. In addition, there are also parties who integrate knowledge by means of re-actualization, reinterpretation, reformulation, contextualization, and transformation without laying down the methodological framework and approach. This study aims to examine the implementation of scientific integration between science and the Qur'an which was carried out by the Al-Qur'an Science University in Central Java Indonesia (hereinafter abbreviated as UNSIQ). This university has launched a vision to become a transformative, humanist, and Qur'anic university by placing the Qur'an as a scientific basis and a foundation for thinking in analyzing various sciences (Administrator n.d.). In analyzing it, this research uses the perspective of the Lakatos' research methodology. RESEARCH METHOD This research is qualitative research with philosophy of sciences perspective, especially research program methodology. According to Lakatos, this perspective is a methodological structure that guides the development of future research and has several methodological rules called "heuristics". Heuristics are conceptual frameworks that are a consequence of scientific language. In the research program, there are at least 3 elements in it, which contains of: first, "hard-core"; second, "protective-belt" which consists of auxiliary hypotheses (supporting 4 hypotheses), and third, "a series theory", namely linking theory in which a theory is the result of a development or auxiliary clause. from a pre-existing theory (Lakatos 1970; Muslih 2017, 2020). Based on

this view, it is necessary to examine the three elements in the existing research program at UNSIQ through the results of lecturer research which published online between 2015-2020 in online journals. These various studies should act as supporting hypotheses that form a protective circle for the hard-core promoted by UNSIQ, namely the development of science and technology based on the Qur'an. THE SYAJARAH AL-QUR'AN PARADIGM AS THE SCIENTIFIC BASE OF UNSIQ WONOSOBO The discourse of scientific integration has become a focus in the development of educational institutions in Indonesia in the last two decades (Mas'ud, Fuad, and Zaini 2019). The change of several Islamic Higher Institution into Islamic University also carries the same spirit. Each university carries a model of scientific integration with its own characteristics. Sunan Kalijaga State Islamic University of Yogyakarta uses the integration-interconnection paradigm (Abdullah 2014), Syarif Hidayatullah State Islamic University of Jakarta uses the dialogue integration paradigm, Maulana Malik Ibrahim State Islamic University of Malang uses the tree of knowledge paradigm (Miftahuddin 2019), Sunan Gunung Djati State Islamic University of Bandung uses the revelation paradigm to guide science with the analogy of a wagon wheel (U. Hanifah 2018), Sunan Ampel State Islamic University of Surabaya uses the Twin Towers paradigm (A'la et al. 2016), and Sultan Maulana Hasanuddin State Islamic University of Banten also uses the integration-comparative-diffusion paradigm (Muzhiat and Kartanegara 2020). The University of Science al-Qur'an (UNSIQ) Central Java, is no exception. The university, which was founded in 2001, carries the integration of the sciences with the Qur'an as a scientific basis and the basis for character building. This can be seen from the vision that was carried out, namely to create a Transformative, Humanist, and Qur'ani University (Administrator n.d.). The scientific building at UNSIQ Wonosobo is built on the concept of syajarah al-Qur'an or a scientific tree based on the Qur'an (Sukawi 2016a). The Qur'an is placed as the basis for the entire scientific structure at UNSIQ. This scientific tree is the embodiment of QS 14: 24-25, where a good tree has strong roots and is sourced from the Qur'an and Qur'anic spirituality (al- 5 ruh al-Qur'aniyah) (Sukawi 2016a). This tree has branches that soar to the sky and have useful fruit. These branches and fruits are likened to other disciplines taught at this university. Syajarah Al-Qur'an serves as a building model for assessment and development as well as orientation of academic and scientific cultural life in its various dimensions. The building was inspired by the tree concept as stated in the Qur'an 24: 35 (Sukawi 2020). From this verse, various concepts that have an important role in the development and sustainability of UNSIQ can be summarized. Some of these concepts are; first, UNSIQ is a form of transformation of the pearl of the pesantren (traditional Islamic boarding school in Indonesia) tradition which is referred to as a pesantren transformation model university. Second, the scientific development in its various dimensions as a whole and comprehensively that comes from all the power possessed by humans, namely the power of the senses, the power of reason, the power of imagination, the power of thought, and intuition. These various powers come from the same source, namely spirituality at the level of the al-fitrah and al-ruh dimensions. Third, the science developed is based on a harmonious-synergistic-integrative paradigm that emphasizes neither east nor west (la syarqiyyah wa la gharbiyyah) so that it is free from the confines of secularization, desacralization, and scientific dichotomy. This is symbolized by the synergy of UNSIQ figures, Kyai Muntaha al-Hafidz as East figure and Kyai Abdurrahman Mas'ud and Kyai Zamakhsyari Dhofier as representatives of the West figures because of their educational experiences in Australia and America. The two mindsets do not overlap each other, but synergize the advantages of East and West in their visions and thoughts (Sukawi 2020). In discussing the integration of science between the West and the East, this university takes the example of how the Ibn Sina and Ibn Rushd's works were adopted by Western civilization which is secular and has no spiritual foundation. This causes their adopted works to lose their spiritual essence. However, UNSIQ presents a solution based on the development of knowledge based on the Qur'anic spirituality which is harmonious-synergistic and integrative. This is supported by the epistemology of the syajarah al-Qur'an which can

integrate it well, beautifully, and harmoniously. The goals of Western science which are oriented to "to exchange the quality of human life" and Eastern science that are oriented to "to exchange the quality of human being" are harmonized and synergized into "to exchange the quality of human life and being" (Sukawi 2020). The concept of syajarah al-Qur'an which is the scientific building of UNSIQ has several differences with similar concepts, for example the tree of knowledge which is a scientific paradigm at Maulana Malik Ibrahim State Islamic University of Malang. These differences can be seen from the basis of determination, historicity, symbolization, implementation, goals, performance, content, and keywords used. In performance and content, the syajarah al-Qur'an consists of three dimensions, namely roots, trees and stems, and fruit. The root dimension contains revelation (al-Qur'an and Hadith), reason, and natural science which is integrated with 3 spiritualities, those are theocentric, anthropocentric, and comocentric. The three models of spirituality are connected harmoniously, synergistically, and integratively in this university (Sukawi 2020). The tree and stem dimensions contain language, history, and methodology. Language in this context is a response to the language of science, culture, and civilization (lisan al-qoum), which is always changing and developing according to space and time. Historically, what is meant here is that the dynamic process of developing science always considers 3 dimensions of time, the past, present, and future. All of them will be strengthened with the methodology as a scalpel in conducting exploration, testing, innovation, and revitalization (Sukawi 2016a, 2020). The fruit that is expected from the tree of the Qur'an is oriented to the results of physical and spiritual efforts by adhering to the four pillars as stated in Qur'an 2:151. Psychologically, the tree will give birth to a person who is healthy, superior, and great so that he can become khalifatullah (vicegerent of Allah) on earth and become khair al-bariyah (the ideal man). Sociologically, the tree creates khair al-ummah (the ideal society). As for scientifically, it can give birth to scientific development through research, utilization, and discovery of new theories in accordance with each scientific discipline (Sukawi 2020). Before discussing scientific integration, UNSIQ has established itself by integrating various systems within it. This integration can be seen from the integration of Islamic boarding schools and modern education, the development of spiritual, emotional, intellectual potential, to skills between Western and Eastern traditions, the integration of Islam, the state, and the Indonesian wisdom, as well as the integration of the four main pillars, namely kyai (religious leaders), bureaucracy (umara'), entrepreneurs, and academics (Sejarah YPIIQ n.d.; Sukawi 2016b). All of these integrations and collaborations are guided by the principles of the pesantren tradition. This principle includes three main principles. Firstly,

al-Muhafadhatu ala al-qadim 7 al-salih wa al-akhdu bi al-jadid al-ashlah

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which means guarding over old traditions that are still relevant and integrating them with new, better traditions (Asrohah 2011). Secondly,

tafaqquh fi al-din wa al-takhalluq bi al -akhlaqu al- karimah

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which means deepening religious knowledge and having noble character. The third, thalabu

a fardhu 'ain obligation for all Muslims (Sukawi 2016a). From the vision mentioned, one of the main missions carried out by UNSIQ is to transform the values of the Qur'an in life. The goal of education aimed at by UNSIQ is to produce human resources who are able to transform the values of the Qur'an creatively and innovatively in order to help provide solutions to the problems of people's lives. The research and service developed also focuses on integrating the values of the Qur'an and science to implement Islam rahmatan lil 'alamin (blessing for all creatures) (Administrator n.d.). This integration is intended to strengthen the scientific base ('ilmiah) of the academic community in it with the basis of the 'natural' character of the Qur'an as a solution to the dichotomy of general science and religion after the golden age of Islam (Hamzah 2018). In other words, the learning process at UNSIQ prioritizes a spiritual introduction based on the Qur'an to educate students to have a handle on life and in the learning process of other disciplines (Sakir 2016). The main figure in this university is Kyai Muntaha Hafidz. He took the initiative to establish innovation and scientific development of the Qur'an. One of his ideas was to establish a higher education institution with the characteristics of the Koran in Central Java. This idea was approved by the four main pillars of society, which contains of kyai with their pesantren, umara (government) with their bureaucracy, entrepreneurs (business and industry) with their finances, and academics with their knowledge, and intellectuals (Firdausa 2019; Sukawi 2020). This was the initial idea of establishing the Institute of Qur'anic Sciences (IIQ) in 1987. The initial aim was to serve as a place to preserve and disseminate the Qur'an through formal education (Sukawi 2020). Until 2016, UNSIQ had a vision to become a Qur'any University that produces superior graduates, virtuous, noble personality, knowledge, technology, and art by adhering to the values of the Qur'an (Hamzah et al. 2018). In its development, UNSIQ includes a vision in 2031 to become a transformative, humanist, and qur'anic university (Administrator n.d.). This further confirms the goal of UNSIQ to create a generation that has a strong scientific base and character base from the values of the Qur'an. 8 In the organization of these various educational institutions, Kyai Muntaha Hafidz placed the Qur'an and al-hadith as his main view of life or worldview (Sari 2006). According to Smart, worldview are

beliefs, feelings and things that are in people's minds that function as motors for social and moral sustainability and change (Smart

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1983). This is in line with what Kyai Muntaha Hafidz did in issuing ideas, thoughts, and ideas. All of them are based on the worldview of the Qur'an and Hadith. According to him, this spiritual foundation is the guide for a Muslim in applying the values of science and technology (Sari 2006). This spiritual education is the main focus in the education pattern at UNSIQ. Spirituality is the most fundamental and most important thing in determining a person's life style. Frankl, as quoted by Sukawi (Sukawi 2016a), stated that humans as a whole consist of 3 dimensions, the physical dimension, the psychological dimension, and the spiritual dimension. This spirituality contains various human characteristics, such as the desire to seek meaning, orientation, intuition, creativity, faith, vision, even listening to conscience beyond the control of the super- ego (Sukawi 2016a). Talking about spirituality, actually talking about the most basic religious teachings, namely aqidah (faith). Aqidah makes humans understand their relationship with God, nature, and other humans. Belief in

this form of aqidah has creative, constructive, and positive power. On the other hand, the absence of faith gives birth to negative, sluggish, and destructive forces (Musawwi 2011; Sukawi 2016a). As mentioned by Sukawi (Sukawi 2016a), that the happiness of a Muslim is when he is able to utilize his spiritual energy to solve problems, find solutions, and provide benefits in terms of absolute obedience and belief in the commands of Allah SWT. This attitude is a form of logical consequence of the recognition of the Almighty God and the powerlessness of creatures so that they must depend on Him. This attitude is extracted from QS 112: 1-2 about the Oneness of Allah (tawhid) and His Almighty so that all creatures depend on Him. When one is immersed in this concept of servitude, one becomes a free entity and is free from any bondage of life. The only thing that makes him submissive and obedient is obedience to the Giver of life, namely Allah SWT. This independence and detachment that is in the corridor of obedience to Allah allows humans to explore their full potential in order to carry out their caliphate function on earth. Thus, humans will be more creative by using various kinds of knowledge they learn to carry out their duties and mandates on this earth (Sukawi 2016a). 9 This is where the spirituality understood by the UNSIQ academic community lies. The spirituality that inspires and becomes the foundation in the establishment, management, and development of UNSIQ is

Qur'anic -based **spirituality (al-ruh al-Qur'aniyah)** which is harmonious-synergistic-
integrative

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(Sukawi 2016a, 2020). This spirit comes from the views, mindset, attitudes, and behavior of KH. Muntaha al-Hafidz as the central figure in the founding of UNSIQ. Various educational institutions that were previously established reflect that Qur'anic-based spirituality has become an identity in each of these educational institutions, not least in the realm of higher education. UNSIQ spirituality has a substantive-complementariness nature. Substantive means that all mindsets and views are based on the most basic teachings and concepts, namely the Qur'an. As for complementary means complementing and giving new colors to existing spirituality. This complementary form can be seen from the integration of Western and Eastern scientific traditions as well as the concept of pesantren and modern education (Sukawi 2016a, 2020). The principle of taking the new tradition and maintaining the old tradition becomes the guideline in these various integration processes so that it does not eliminate the identity and tradition of Islamic boarding schools that have taken root at UNSIQ. The tradition Islamic boarding school which is a place for spiritual education makes all the activities of the academic community in it full of values to create human beings who have an Islamic and Qur'anic identity (Hamzah 2018; Sakir 2016). From the explanation above, it can be concluded that the scientific basis for integrating modern science and the Qur'an has become the spirit in scientific development at UNSIQ. This can be seen from the learning outcomes that are carried out and the curriculum that supports it. The various learning achievements of graduates from all study programs and prescribed subjects make the vision of scientific integration a common awareness of the academic community at UNSIQ. A CRITICAL READING ON RESEARCH DEVELOPMENT PATTERN As stated in the

Republic of Indonesia Law Number 14 of 2005 concerning Teachers and Lecturers , as
professional educators , one of **the main** tasks **of**

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lecturers is to develop

. These studies also play an important role in strengthening the scientific base at UNSIQ which uses the concept of "syajarah al-Qur'an". Several publications and research by UNSIQ lecturers have also begun to strengthen the scientific base. The first scientific publication entitled "The Concept of Gravity in the Perspective of the Qur'an and Science (Study of Surah al-Hajj verse 65)" written by Muchotob Hamzah and Badriyatul Muniroh who came from the Islamic Education Study Program and the Physics Education Study Program (Hamzah and Muniroh 2016). This study compared the theory of gravity in the perspective of physics with the views of the Qur'an on the theory, especially those mentioned in Qur'an Surah al-Hajj verse 65. This study uses an analysis of the meaning and definition of gravity from a scientific perspective. Then analyzed the interpretation of the verse and its relation to the prevailing theory of gravity. The results of this study indicate that the Qur'an does not explain this concept in detail and only provides a global understanding. If physics learning in high school focuses on physical analysis, it needs to be equipped with spiritual meaning and wisdom behind these events. A similar study entitled "Meteorology in the Perspective of the Qur'an and Modern Science" was written by Nurul Mubin in 2020 (Mubin 2020). Nurul Mubin is a

lecturer in the Islamic Education Study Program, Faculty of Tarbiyah and Teacher

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Science. This research focused on meteorological studies which include wind, cloud, rain, and lightning phenomena. This study is dominated by the classification of verses related to the phenomena mentioned above and then the interpretation of these verses. The results of this study conclude that various modern scientific discoveries related to natural phenomena have been confirmed by the Qur'an through its verses, both qauliyah (written words on Qur'an) and kauniyah (Allah's words that spread out the Qur'an) verses. This also shows evidence of the truth of the revelation of the Qur'an. Both studies were strengthened by the research "Science and Technology in the Perspective of the Qur'an" by Asep Sunarko, a lecturer at

the Arabic Language Education Study Program, Faculty of Tarbiyah and Teacher

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Science (Sunarko 2015). The research shows the sources of knowledge, ways of obtaining knowledge, as well as the evidence of knowledge in the Qur'an. This study concludes that the development of science must be in accordance with the guidelines of the Qur'an. If it is not, then it cannot provide benefits to humans, and can even cause harm. In addition, knowledge can not only be achieved with the human mind, but it is necessary to bring the heart to believe and do dhikr (remembering Allah) and dzauq (spiritual feelings) to feel. The three studies above fall into the first category of research by UNSIQ lecturers which focuses on the study of modern scientific theory in the Qur'an. The second category of research by UNSIQ lecturers consists of several lecturers' scientific publications that focus on the application of modern science in studying the Qur'an and al- Hadith. One of them is a study entitled "Vector Analysis in the Prayer Movement on Health" conducted by Sri Jumini and Chakimatul Munawaroh from the Physics Education study program (Jumini and

Munawaroh 2018). This study aimed to analyze the vector in the prayer movement as seen from the standing, takbiratul ihram, ruku', sujud up to salam. After being analyzed by vector analysis, the benefits of these various movements were sought from a health perspective. The results of this study indicate that all prayer movements in one raka'at have a number of angles of 3600 and have the same number as the tawaf movement. From a health point of view, all these movements if done properly and perfectly from standing up to greetings can provide benefits to the body. A similar study entitled "Study of Thought and Backbiting for the Health of the Human Body (Teaching the Concept of Vibration and Waves)" conducted by Nelly Azizah from the Physics Education Study Program also falls into the same category (Azizah 2018). This study aims to show the lessons learned from the prohibition of backbiting and evil suspicion from a health perspective, especially cardiovascular and mental health. This research shows that prejudice and backbiting can cause anxiety and stress that have an impact on physical and mental health. This anxiety can cause high blood pressure and an accelerated heart rate according to the concept of vibration in the body in physics. As for the concept of waves indicating heart disease that is not immediately resolved, causing the rupture of blood vessels and disrupting the circulatory system. The next research is a study entitled "Early Determination of Fardhu Prayer Time with Circulation of the Sun" which was carried out by Ahmad Khoiri, a lecturer in Physics Education, Faculty of Tarbiyah and Teacher Sciences (Khoiri 2017). This research used the deductive method and the tahlily (analyzing) method, the deductive method is used to derive physical theories from the general to the more specific and the tahlily method is used to explain the related verses of the Qur'an and reveal the meaning behind it. This study concluded that the determination of the beginning of prayer with the circulation of the sun is interconnected 12 between modern science and the Qur'an. In fact, from this research, modern scientific knowledge, especially regarding the circulation of the sun can help a Muslim in determining the start of the fardhu prayer time. Another research applied in community service activities entitled "Design of a Mobile Verifier for Sacrificial Animals Using a QR Code Based on the ZXING Library" (Baihaqy, Asnawi, and Fatimah 2020). This research was conducted by M. Alif Muwafi Baihaqy, Muhammad Fuat Asnawi, and Siti Fatimah from the Informatics Management program and Informatics Engineering program. This research facilitated the process of buying and selling sacrificial animals and minimizing human error and has implications for losses suffered by consumers and traders. With this system, it can be detailed animal data and track records are based on android mobile. The third category of research is research that focuses on the formation of the Qur'anic character. The first research entitled "The Growth of Islamic Character through Physics Learning based on Science-Islam Integration" was conducted by Ahmad Khoiri, Qori Agussuryani, and Hartini from the Physics Education Study Program (Khoiri, Agussuryani, and Hartini 2017). This study applied physics learning to class IX students of al-Qur'an Vocational High School based on the integration of science and Islamic values and reflection on the results of the evaluation of learning. This study showed that

learning based on Islamic- **science integration can improve** student **learning outcomes** , **attitudes,** **and** social attitudes. Moreover, **the character**

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values that are instilled during the learning process require students to have an Islamic character in the form of honesty. The next research is a study entitled "Growing Scientific Attitudes Through Thematic Studies of Science QS al-Mu'minun verses 12-14 Using Journal Qur'an Techniques" conducted by Desy Putri Hanifah from the Madrasah Ibtidaiyah Teacher

verse that becomes the object of the research is the verse that explains the origin of human events. This study concluded that the technique of al-Qur'an journaling can be an alternative in studying the Qur'an thematically according to the branch of science. From the learning process there are several attitudes that are well stimulated, such as gratitude, obedience, faith, and so on as well as scientific attitudes such as honesty, confidence, skepticism, curiosity, and so on. Another similar research is a study entitled "Internalization of Character Values in Learning 'Ilm al-Ashwat (Case Study Against Arabic Language Education Students UNSIQ Wonosobo)" conducted by Chairani Astina and Rifqi Aulia Rahman from Arabic Language Education Program (Astina and Rahman 2018). This study analyzed the character values contained in the 'ilm al-Ashwat (Arabic phonology) course that support the achievement of the UNSIQ spirit, namely qur'ani, transformative, and humanist. This study concludes that the character values that are internalized to the student of first semester in Arabic Language Education program at UNSIQ are divided into 2 categories. The first is the character values implied in the learning methods such as self-confidence, responsibility, love of reading, respect for achievement, and curiosity. The next character values are further implied in the learning materials which include honest, disciplined, communicative, and religious attitudes. From the explanation above, it can be concluded that the researches in the first category focuses on proving the facts of modern science in the Qur'an. This research model can be said to be a beginner research model because it only contains a definition of a concept from a scientific discipline and compares it with verses in the Qur'an which have close problems. In fact, not infrequently, because the Qur'an is global and not a book of science. This research model is in line with the thinking model of Harun Yahya and Maurice Bucaille, which is directly referred to by the majority of research in category one. This model aims to find the suitability of scientific findings with the verses in the Qur'an (Muslih 2017). In this case, when the Qur'an and science introduce the same issue, many parties conclude that the two can be brought together and even merged. In this phase, many commentators leave the realm of science and enter into scientific findings and methodologies. On the other hand, there are also scientists who bring their findings and methodologies to the area of the Qur'an and look for verses that justify these findings or those findings that strengthen the "truth" of the Qur'an (Muslih 2017). In fact, science is something that has the potential to be wrong and the Qur'an is an area where there is no doubt in it. From this, if the findings change due to other findings that have accumulated, then the verses of the Qur'an that support these findings are wrong and need to be corrected. In this first study, the majority of researchers came from Islamic scholarship or from the perspective of the Koran, namely from the study programs of Islamic Education and Arabic Language Education, although there were still collaborative efforts with Physics Education lecturers. The second category of research focuses on the application of modern science in studying the Qur'an and al-Hadith. This research model appears to be a continuation of the first category of research, and applies modern scientific theory in analyzing verses of the Qur'an or al-Hadith. Other forms of research show the application of modern science such as the science of the sun's circulation and the use of QR Codes in selecting sacrificial animals. This second research model is practical-applicable and allows modern science to run side by side without the need to compare theories in science to be confirmed by the verses of the Qur'an. This second model of

research is mostly done by lecturers in Physics Education, Information Management, and Informatics Engineering study programs. Unlike the two previous research models, the third research focuses on the formation of the Qur'anic character from various disciplines taught, both in courses and high school subjects. This research model tries to reveal the Qur'anic character values contained in learning activities. This research model strengthens the Qur'anic spiritual base which is the spiritual basis at UNSIQ as enshrined in the example of Kyai Muntaha al-Hafidz. This research model is dominated by lecturers from the Faculty of Tarbiyah and Teacher Science. From this analysis, the first research model can be categorized as basic research to stimulate communication and dialogue between the Qur'an and science. The second model research can be categorized into research that becomes auxiliary hypotheses in the encounter of science and the Qur'an. The third research model is also a supporting hypothesis for the formation of Qur'anic characters in the learning process that runs at UNSIQ. In addition, research with the theme of scientific integration is still limited to a few study programs. As the researchers found, the majority of themed research came from the Faculty of Tarbiyah and Teacher Science, especially the Physics Education study program. As for other science faculties, such as

faculty of technology **and** computer **sciences, faculty of** medical sciences, **faculty of**
economy, **faculty of** language **and**

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literature, and faculty of communication and social-politics sciences, there is still a lack of research on the theme which indirectly supports the scientific base at UNSIQ. On the other hand, these works have only appeared in the last 5 to 10 years. When compared with UNSIQ which has been established since 2001, the direction of research development and strengthening of the unique scientific base of UNSIQ is quite late. Two major seminars were 15 also held in 2017 and 2018. The above studies also ranged from 2010 and above. Thus, this is a special concern for the development of UNSIQ in the future, especially in order to strengthen the scientific base so that it can become a scientific paradigm and animate all study programs in it. This is in line with the reflection of Mahfudz Junaedi, Dean of Faculty of Syariah and Law UNSIQ 2017-2021 who said that this university needed to sharpen the methodology in integrating modern science and the Qur'an systematically. According to him, the scientific base at UNSIQ needs to be reconstructed in order to lead to changes in the on-going process of an integrated curriculum that needs to be enriched with research that strengthens the scientific base at UNSIQ (Junaedi 2017). CONCLUSION From the beginning of its establishment and the name it carries, UNSIQ has prioritized the integration between modern science and the Qur'anic Science. This is inseparable from the historical side of the founder and also the needs of the people which indicate the existence of this scientific integration. Al-Qur'an is placed as the basis of character in the development of science and technology. However, in order for the scientific base to become a scientific paradigm, it must meet the requirements. From the author's observations, the scientific base at UNSIQ has been structured in an awareness that supports the establishment of a distinctive academic tradition and scientific culture. This is reflected in the achievements of graduates that have been declared and also the curriculum that has been set. However, researches which are auxiliary hypotheses have not been widely carried out by the academic community in it as the work of lecturers discussing this theme is still minimal. Existing research is also still limited in certain faculties and is not evenly distributed. This could be because there is no research development plan that supports the strengthening of UNSIQ's unique scientific base. Therefore, as a consequence of building scientific buildings, it is necessary to reactivate the spirit of research with the theme of integrating science and the Qur'an in various disciplines as stated in UNSIQ's vision so as to be able to build a unique

scientific paradigm of UNSIQ. This could be because there is no research development plan that supports the strengthening of UNSIQ's unique scientific base. Therefore, as a consequence of building scientific buildings, it is necessary to reactivate the spirit of research with the theme of integrating science and the Qur'an in various disciplines as stated in UNSIQ's vision so as to be able to build a unique scientific paradigm of UNSIQ. This could be because there is no research development plan 16 490 that supports the strengthening of UNSIQ's unique scientific base. Therefore, as a consequence 491 of building scientific buildings, it is necessary to reactivate the spirit of research with the theme 492 of integrating science and the Qur'an in various disciplines as stated in UNSIQ's vision so as to 493 be able to build a unique scientific paradigm of UNSIQ. 494 495

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