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Research Article

Scientific Integration in Islamic Religious College in Indonesia: Analysis of Application Form, Opportunities, and Challenges

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Abstract

Islamic religious colleges in Indonesia were created with a foundation of scientific integration between general science and religious science. This is one of the differences between public universities and religious universities in Indonesia. This research aims to analyze how the application of the concept of scientific integration in Islamic religious universities in Indonesia and how the opportunities and challenges posed by the integration of science. This research uses a qualitative approach with descriptive qualitative research. This research involves the managers of quality assurance institutions in Islamic religious colleges as informants of this research. Determination of research informants was done by purposive random sampling technique. Data were collected by interview and documentation techniques. The data collected is qualitative data which is analyzed by data triangulation technique. The results of the study indicate that one application of the concept of scientific integration at Islamic religious universities in Indonesia is the scientific paradigm contained in the composition of the educational curriculum used. The curriculum is structured with a different paradigm from public universities. In addition, the results of the study also show that there are opportunities and challenges obtained by the application of this scientific integration. for students, as well as making it easier to train and equip students' skills. Furthermore, the challenges obtained are obstacles to lecture management both from the aspects of students, lecturers, and the bureaucracy of study programs at the institution.

Keywords Scientific Integration, Religious Universities, Opportunities and Challenges.

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Introduction

Education is a step in providing provisions for each individual to be able to live life (Schunk, 2012). Furthermore, the educational process provides a change in behavior in each individual (Perkinson, 2012). This means that the educational process becomes a very important medium for everyone to increase knowledge, attitudes, and skills which in the end can all be used as capital to live the process of life. Based on this, a good educational process must be created to form a good generation as well (Yunianto et al., 2020). One level of the educational process is higher education which is carried out in college. Indonesia is a country that has a lot of universities. This is because education is part of the mandate of the law that must be carried out by every citizen. Higher education is one of the efforts made to carry out the mandate of the law. Currently there are around 4,600 universities in Indonesia. From the aspect of scientific paradigm, universities in Indonesia are divided into two, namely general universities and religious universities. Public universities run on the general scientific paradigm according to the target of the institution, while religious universities run on the paradigm of integrating general science with religious science. One of the largest parts of religious universities in Indonesia is Islamic religious colleges. Islamic religious universities in Indonesia have an epistemological goal to integrate general knowledge with religious knowledge. Scientific integration comes from two words, namely integration which comes from the word "integrate" which means something that is formed from intact parts, then the second is science which means knowledge that can be justified scientifically. Therefore, the integration of knowledge referred to in this study is a combination of several knowledge groups (general and religious) into a paradigm that is carried out in the learning process at Islamic religious colleges in Indonesia. This is in accordance with the opinion of Barizi (2011) which states that scientific integration means the unification of several scientific families into a new scientific concept. The term scientific integration originally emerged from the view of the importance of uniting the sciences that are in the realm of religious knowledge and those that are in the realm of general knowledge. The factor that caused the two scholarships to separate, historically originated from the conflict between the medieval Orthodox Church and the scientific community. With the deductive-platonic method, the church developed religious doctrine too far so that the truth was considered by the clergy to exist only within the church. Scientific information that comes from inductive and experimental areas is rejected by the Church. As a result, there was a conflict between reliaion and science (science) which could no longer be reconciled until the modern Western era in recent times. The next impact is the emergence of paradigm differences in ontological, epistemological, and axiological concepts between religious knowledge and general knowledge. The paradigm difference can be seen from the way of seeing reality and defining what is right. On the one hand, there is an understanding which states that revelation as the basis of religious science which is seen as having absolute truth by its followers cannot be dialogued with science. Meanwhile, on the other hand, science whose truth is logical-empirical cannot be integrated with revelation. Currently the concept of scientific integration is part of the basis for the formation of Islamic reliaious universities in Indonesia. However, there are still many obstacles faced by Islamic universities in applying the concept of scientific integration to the implementation and operational domains of the institution. For example, the application of the concept of scientific integration at the IAIN Padanasidimpuan institution has not yet shown the ideal state of applying the concept of scientific integration that should be. The same thing also happens in various other Islamic religious universities, such as at UIN North Sumatra, until now they are still looking for forms of application of scientific integration that are appropriate in carrying out educational briocracy in Islamic religious universities. This situation is something that needs to be focused on finding a solution by finding the root of the problem and making the same perception regarding the application of scientific integration in Islamic religious universities in Indonesia so that the goal of scientific integration runs optimally and in accordance with expectations. If these problems are not followed up seriously and focused, then the concept of scientific integration within Islamic religious universities in Indonesia will only stop at discourse and cannot be applied to the sustainability of learning in Islamic religious universities in Indonesia. a comprehensive and focused study on the application of the concept of scientific integration in Islamic religious colleges in Indonesia as well as an analysis of the opportunities and challenges that will be faced in applying the concept. The study of the application of scientific integration in Islamic religious universities will help in equalizing perceptions regarding the application of scientific integration in Islamic universities in Indonesia, while the analysis of opportunities and challenges will assist in finding the root of the problem and solutions to the problems faced today.

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The results of this study are expected to be input for managers of Islamic religious universities throughout Indonesia to be able to formulate systemically, systematically, empirically and operationally in implementing scientific integration. Various studies on scientific integration have been carried out, including research conducted by Ikhwan (2016) which examines various problems faced by various Islamic religious universities in applying the concept of scientific integration. The results show that there are still many Islamic religious universities in Indonesia that do not understand the direction of applying the concept of scientific integration. Furthermore, research conducted by Jamal (2017) which examines scientific integration models applied by Islamic religious universities in Indonesia. The results show that there are several application models used by Islamic religious universities in Indonesia, namely the IFIAS model, ASASI, Islamic Worldview, Islamic knowledge structure, Bucaillism, classical philosophy-based scientific integration, Sufismbased scientific integration, scientific integration based on fiqh, ijmaili, and Aligarh. This research comes with a different spirit from previous studies, namely to examine the form of application of scientific integration carried out by Islamic religious universities in Indonesia, namely to examine the form of application of scientific integration carried out by Islamic religious universities in Indonesia, namely to examine the form of application of scientific integration carried out by Islamic religious universities in Indonesia, namely to examine the form of application of scientific integration carried out by Islamic religious universities in Indonesia and to analyze the opportunities and challenges faced.

Methods

This research uses a qualitative approach with descriptive qualitative research. The purpose of this research is to analyze the application of scientific integration as well as the opportunities and challenges faced by Islamic religious universities in Indonesia. The following presents the research design used.



Figure 1. Research Design

This research was conducted in Indonesia by involving four Islamic religious universities, namely UIN Syarif Kasim in Pekanbaru, UIN North Sumatra in Medan, UIN Ar-Raniry and Banda Aceh, and UIN Imam Bonjol in Padang.

Table 1.

Informants Institution

Name	Gender	Age		Institution
Informan 1	Female	51 old	years	UIN Sultan Syarief Kasim
Informan 2	Male	57 old	years	UIN Sumatera Utara
Informan 3	Male	53 old	years	UIN Ar-Raniry
Informan 4	Male	51 old	years	UIN Imam Bonjol

The informants involved in this study were the quality assurance institutions at these institutions totaling 4 people. The informants themselves were determined using a purposive random sampling technique with several criteria. The criteria used as the basis for determining research informants are (1) the institution's quality assurance agency, (2) has served more than 10 years at an Islamic religious college, (3) status as assessor either locally or nationally, (4) experienced in curriculum development in Islamic religious colleges, and (5) understand the concept of scientific integration in Islamic religious colleges. The determination of these criteria is to meet the data



needs of this research because this research requires information or data from the parties of these institutions to answer the research questions that are formulated. The following table presents the informants of this research. The implementation of this research went through several procedures, including (1) conducting preliminary research to determine the problems to be raised in this research; (2) determine research informants, namely the quality assurance institution at Islamic religious universities that meet the criteria determined by parents; (3) develop research instruments as a tool to collect research data; (4) conducting interviews on the application of scientific integration used as well as the opportunities and challenges faced; (5) analyze the documentation as supporting data from the interview results; 6) grouping the data obtained from the research; (7) perform the analysis process on the collected data; and (8) draw conclusions. Data collection techniques used in this study were interviews and documentation. Interview technique is used to obtain information about the application of scientific integration used and the opportunities and challenges faced. The data obtained is qualitative data which is analyzed by data triangulation technique. Interviews were conducted in person. To support the data obtained from the interviews, another data collection technique used is documentation. Documentation is done by analyzing academic documents from each institution. The data analysis technique used in this study is a data triangulation technique by comparing the validity of the data obtained. The data analysis in this study itself went through several stages consisting of (1) collecting interview data about the application of scientific integration used as well as the opportunities and challenges faced; (2) presenting data obtained from all informants in the form of descriptions; (3) analyze and reduce data by comparing data obtained from interviews with documentation to find synchronization of data obtained; and (4) draw a research conclusion. The triangulation process in the data analysis process continues until the results can be used as references that have consistency to answer research questions. If the data is still inconsistent and conclusions cannot be drawn, then the triangulation process will continue to be carried out repeatedly until the data obtained are consistent.

Result and Discussion

The results of this study are divided into three parts according to the research questions formulated. First, the results of this study are described in the subsection on the application of scientific integration at Islamic religious universities in Indonesia. Second, the opportunities obtained in the application of scientific integration. Third, the challenges encountered in implementing the scientific integration. The following is an explanation of the results of this study.

Application of Scientific Integration

The results of this study indicate that the form of application of scientific integration at Islamic religious universities in Indonesia lies in determining the scientific paradigm of each institution. UIN Sultan Syarif Kasim applies scientific integration by describing a scientific paradigm called the Andromeda Spiral Metaphor which is presented on their institutional logo. The logo in question describes the relationship of Islamic studies, social sciences and humanities, and natural sciences in an integrative and interconnected relationship.



Figure 2. UIN Sultan Syarief Kasim Logo's

In a scientific perspective, there are three important terms, namely al-haq, al-afaq and al-anfus. Al-Haq is another term for revelation that comes from God and has absolute truth value which is



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the main reference or reference in developing the sciences in human life, especially in the field of religious science. Religious sciences are derived from the values of revelation from the Qur'an and as-Sunnah which are sourced from Allah SWT. The revelation became the basis, source and spirit of al-afag and al-anfus. Al-afag is the universe became the source and object of scientific study or natural sciences and al-anfus is humans became the source and object of study of the social sciences and humanities. The basic idea of this paradigm of UIN Sultan Syarief Kasim views that science is essentially one. This is a manifestation and exploration of the understanding of the values of monotheism (oneness of God). Allah SWT, the Almighty God is a God who is essential, and His character and nature are also one. Thus, His knowledge is essentially one (one) and undivided. The division or separation of knowledge only occurs in appearance with the eye, while at the level of essence or substance, knowledge is one. UIN Sultan Syarief Kasim calls the unity of knowledge a verse (signs of Allah). The division or division of knowledge is only for technical and tactical purposes or even just a kind of need for "sharing tasks" in the development of knowledge. Each scientist with this Andromeda spiral paradigm will realize their respective positions that they are forever in the same scientific breath, namely monotheism to Allah. It is recognized that scientific awareness like this is not easy to grow. Building this scientific paradigm in all academics is similar to efforts to cultivate creed values in the context of religious knowledge to students. Helmiyati explained, "In an effort to build this scientific paradigm, UIN Sultan Syarief Kasim has compiled strategic and tactical steps aimed at developing the paradigm of the scientific integration of the "Andromeda Spiral" and implementation through workshops and briefings for leaders of work units and lecturers". UIN North Sumatra applies scientific integration by creating a philosophical scientific paradigm which is given the term Wahdatul Ulum (language means unity of knowledge). There are several arguments that underlie or underlie the emergence of this paradiam (1) although knowledge is achieved through research, dialogue, and reasoning (nazriyyah), it cannot be denied that Allah the Most 'Alim is the source of knowledge. Classical Muslim scientists generally put an integrative approach in the development of science, such as al-Kindi, al-Farabi, and al-Biruni; and (2) the occurrence of a dichotomy of science, on the one hand science is secular-dichotomous, if not 'conflict', on the other hand 'religious science' is marginalized as a result of the development of radical secularism. Based on this perspective, the reintegration of knowledge in the context of Wahdatul Ulum can be carried out in five forms (1) vertical integration, namely integrating science with divinity, (2) horizontal integration, which can be done in two ways, namely integrating deepening and approaches to Islamic disciplines. certain disciplines with other disciplines of fellow Islamic sciences, and integrate the approach of the natural sciences with certain Islamic sciences, or between fields of Islamic science; natural sciences, social sciences, and humanities, (3) integration of actuality, integrating science developed with the reality and needs of society, (4) integration of ethics, namely integrating the development of science with the enforcement of individual morals and social morals as well as integrating the development of washathiyyah (moderate) science, so as to give birth to national insight and humanitarian insight that is in line with the message of the substance of Islamic teachings about nationality and humanity, (5) interpersonal integration, integration between the dimensions of the spirit and the power of thought that exists in humans in the approach and operationalization of the transmission of knowledge. In terms of carrying out their intellectual duties, there are at least six philosophical foundations that the academic community of UIN North Sumatra should always use (1) scientific and objective, (2) tawhidiy, (3) caliphate, (4) morality, (5) hadhari, (6) sumuliy. Therefore, the study of all courses in the curriculum used is oriented to these six foundations, so that they become the basic principles in the development of Islamic sciences and sciences. UIN Ar-Raniry implements scientific integration by creating a scientific paradigm which is given the term Frikatification. Fricatifization comes from the word 'fricatived' which means "a speech sound that is made by pushing air out through a small space with your mouth almost closed". That is, fricative is part of linguistics. However, the essence of the word fricative is to make sounds by expelling air before a letter appears, where the mouth is almost closed. That is, the air that comes out first, before the letters like 'f', 'z', and 'th' appear. It is the air that then comes out of the mouth, like someone trying to put out a candle or a match. The use of the term frikatification of knowledge is strengthened by traditional culture or local Acehnese wisdom. The Acehnese in traditional villages, when burning a sua made of dried coconut twigs or leaves, will exhale air, so that a fire that has light can be lit. Likewise with a traditional kitchen, where a gust of air is needed to turn on the firebox for cooking. Sua's philosophy is an image of the fricatifization paradigm of science, where it is necessary to seek knowledge that is able to enlighten human life. Because this paradigm relates to power before there is motion or sound, like we exhale air. Metaphorically, the

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philosophy of fricativeization of knowledge is like a bamboo grove that stands firm and protects each other. Bamboo is able to make a sound when there is wind, but it never wobbles or falls, because it has very strong roots. Bamboo is always there to protect its surroundings. The presence of bamboo can also be used as decoration material or to build shelter. So, the crowds of bamboo sticks and the howling of the wind are manifestations of the fricification of science. Thus, the fricification of science is an attempt to replant the 'bamboo' of science at UIN Ar-Raniry. This bamboo image also means that all the roots of knowledge will be allowed to grow on this campus. This makes UIN Ar-Raniry able to face the wind of civilization from anywhere. So, the fricification of science is understood as an attempt to breathe the spirit of knowledge into various directions. In other words, the frictifization of science is an effort of science to move according to the power of light that is owned in a place of reproduction of science. Because he is a breath, then the movement of knowledge is only manifested in human life, after they get air from the blowing. Alternatively, the gust can be understood as a spirit that is blown into the container that exists in creatures. Knowledge is a force that brings life to life, not kills life. If it is likened to the spirit or life, then the paradigm of the fricativeization of science is the spirit that is exhaled in the human body, which then makes the human alive. Here it is seen that the fricatification of science is the stage where all objects have not moved or have received their movement. Since he is a breath, two effects will occur, exhaling air to turn on or exhaling air to kill. This fricative paradigm is the peak paradigm, after five scientific paradigms have been mastered by a scientist, namely (1) descriptive, where a person is only able to describe or narrate a knowledge data, without carrying out a critical thinking process in depth, (2) explanatory, namely the ability of a person to explain an idea from various sides thoroughly. The ideas described, sometimes depart from the same theory of knowledge, (3) discursive, where someone has started to think to relate the results of his thoughts to the scientific discourse of other thinkers, (4) interpretive, at this stage a person is able to build their own scientific foundation to get to the theoria stage (theorizing of science), (5) implicative, a thinker already understands aspects of the influence of his thoughts on other people or a community. Philosophically, the transformation of IAIN Imam Bonjol into UIN Imam Bonjol is based on the idea of reintegrating Islamic religious sciences which in Western academic vocabulary are called Islamic religious sciences or in Arabic-Islamic academic vocabulary it is called rasah Islamiyah—with "secular" sciences., which is widely known as the general sciences. In fact, for the context of the Minangkabau community where UIN Imam Boniol is located in the element to be integrated, it can be added with "customary sciences" that apply in the Minangkabau traditional treasures themselves. Here the word "customary sciences" is put in quotation marks. This is because if you rely on scientific understanding in the treasures of modern philosophy, the knowledge contained in adat, which is generally called local wisdom, has not been systematized and verified through scientific methods. Ontologically, the reality that becomes the object of science is always multidimensional. In terms of material objects, there is a reality called the objective-empirical realm; some are in the form of relations and exchanges between humans and between humans and nature; and there is a subjective-internal human experience itself. First, it is faced by the natural sciences, the second is the social sciences, and the third is the humanities. The division of scientific disciplines based on this ontological reality trichotomy has been known for thousands of years. In addition to the ontological reality division as above, there is another division. Based on the point of view of how science will work when faced with reality. The ontological pluralism above has logical implications for the nature of the epistemology and methodology that will be used as the basis for the scientific development of the Imam Bonjol State Islamic University. The implication is the plurality of epistemological and methodological. Facing the ontological reality which is defined in the trichotomy of natural, social, and human knowledge, as well as the trichotomy of text, social relations and subject experience, the tradition of Islamic thought in its golden age already had three epistemological models that were used to find out these facts. The three types of epistemology are bayani (textual interpretation), burhani (empirical and logical proof) and 'irfani (insight knowledge of subjective experience). At the level of value considerations in the end all academic activities at a university fall back on the universal defense of humanity. At this point, the axiological paradigm of UIN Imam Bonjol is axiological pluralism. Because the State Islamic University of Imam Bonjol understands that values in humans can come and be chosen from various sources thanks to their interactions with humans and other cultures (sociological pluralism). Based on the explanation above, with the principle of balance and opposition, UIN Imam Bonjol formulates the Dialogical-Interaction paradiam in the development of science. This paradiam as described above can metaphorically be analogous to An-Nahl (bees and their nests). Each bee has a hexagonal-shaped hive that is

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integrated with other bee hives. Each hive does not mix or combine with others, but is integrated into a single unit of work, namely producing honey. Honey is born and can be enjoyed by humans because in the hive the bees work independently and together. UIN Imam Bonjol is like a collection of mutually exclusive hexagonal fields but forms a unity. These fields can represent disciplines, faculties, majors, types of methodologies and approaches, value assumptions, and so on. Like the honeycomb, each field is independent but at the same time related to other fields.

Opportunity

The application of scientific integration in the realm of Islamic religious universities in Indonesia has a positive impact that creates a good potential or opportunity, especially in improving the quality and quality of graduates. The results of the study indicate that there are at least 3 things that are positive opportunities obtained when implementing scientific integration in Islamic religious universities, namely (1) facilitating the cultivation of character in each student; (2) facilitate the provision of religious knowledge and general science to students; and (3) Facilitate training and equipping students' skills. These three aspects become a very important part as capital for every individual in carrying out daily life. Furthermore, the provision of knowledge, attitudes, and skills is the main goal of a learning process (Lubis, 2019; Lubis & Dasopang, 2021). The first opportunity is to facilitate the provision of religious knowledge and general knowledge for students. This was obtained from the process of integrating two scientific clumps which created a curriculum based on the realm of religious knowledge and general knowledge. Forming broad knowledge must be accompanied by extensive sources as well, therefore collaborating religious knowledge with general science will make students' knowledge wider (Saftri & Sa'dudin, 2019). Furthermore, Nugraha (2020) states that the integration of religious and general knowledge can balance general knowledge with religious knowledge so that the individual's relationship with his god and the individual's relationship with other individuals can run well. The scientific integration carried out at Islamic religious universities in Indonesia also has a positive impact and creates an opportunity to shape the attitudes or character of students. The formation of student character is a very important part to be obtained in an educational process (Wolfolk, 2016). Providing religious knowledge to students is a concrete step that can be taken in internalizing Islamic values and character in each individual (Dasopang & Lubis, 2021). The formation of attitudes or character through the concept of scientific integration at Islamic religious universities in Indonesia is realized through the creation of an Islamic academic culture and the formation of the ma'had jami'ah program or pesantren in the campus environment. Islamic academic culture is one way that can be done in instilling Islamic values and shaping student attitudes (Sudarto, 2020). Furthermore, Juliawati & Yandri (2018) stated that the pesantren program on campus is a program that has a significant impact in shaping student attitudes. The results of the interviews conducted, the process of creating an Islamic academic culture is carried out by applying standard operating procedures for learning based on Islamic values. Several things that are part of the standard operating procedures in question are starting learning by praying, reading the verses of Al-Qur'an, wearing polite and Islamic clothes, and other behaviors that show Islamic values. Habituation to an Islamic academic culture provides a stimulus for each individual to continue to act or behave according to their habits, namely instilling ancient values in doing something (Mustopa, 2017). Furthermore, the presence of the ma'had jami'ah or pesantren program on the campus of Islamic religious colleges also has a positive impact in shaping student attitudes or character. Each student must undergo this program during the first year of study given in the cultivation of student Islamic values. This is in accordance with the findings of Hafidah & Makruf (2020) which states that the ma'had jami'ah program at Islamic religious universities in Indonesia helps in the process of character strengthening education for students. In addition to providing knowledge and forming attitudes, the application of the concept of scientific integration at Islamic religious universities in Indonesia also provides a very positive opportunity in increasing student skills. The skills in question are language skills and reading and writing skills of the Qur'an. These skills were obtained from the implementation of the ma'had jami'ah program in Islamic religious colleges as a form of application of scientific integration. The language skills in question are English and Arabic skills. These skills are obtained from training and habituation of foreign languages in the ma'had jami'ah environment. This is in accordance with the findings of Prastyo (2017) which states that Islamic boarding schools are one of the media that can be used to train foreign language skills (English or Arabic) because in Islamic boarding schools students will be accustomed to foreign languages. Furthermore, Syahputra (2015) in his findings stated that foreign language skills would be easy to

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acquire by getting used to using the foreign language in everyday life. Routines in the ma'had jami'ah program also help students to increase their reading and writing skills of the Qur'an. As one part of the ma'had program, students are accustomed to continue to be trained and practice in honing the ability to read and write the Qur'an.

Challenge

The application of scientific integration at Islamic religious universities in addition to having various promising opportunities, of course also has challenges that must be faced. Some of the challenges that arise include obstacles in the management of lectures, both from the aspect of students and lecturers in study programs at the institution. Based on the information obtained from the interview process, it was stated that the obstacles in the management of lectures from the student aspect were seen from the number of students at religious colleges who were overwhelmed in dealing with the many types of courses that had to be taken to complete undergraduate courses. This is because the integration of science that gave birth to the scientific paradigm of the institution creates a curriculum that contains courses that blend religious knowledge with general science. The number of types of courses will be directly proportional to the number of types of assignments obtained by students, so it will really drain their concentration and energy. Meanwhile, the current direction of education tends to talk about optimization and effectiveness (Dasopang et al, 2020; Lubis et al, 2021). Furthermore, the large number of students who come from senior high schools that are not under the ministry of religion or from Islamic boarding schools make implementing this dense curriculum even more difficult. This is because they do not have a strong foundation or capital as a basis for facing courses based on religious knowledge. This is in accordance with the findings which state that basic knowledge is very important for each individual to possess before acquiring further knowledge (D'Souza & Gurin, 2016; Lubis & Wangid, 2019; Perkinson, 2012). From the perspective of lecturers who teach in Islamic religious universities in Indonesia, the challenge faced in implementing scientific integration is the difficulty of adapting to different habits from other universities. This was revealed by the informant in this research interview who stated that there were many lecturers who were still unable or had difficulty adapting to the habits of Islamic religious colleges. Good adaptability in a new learning environment is an ability that every teacher must possess in order to create an effective learning process (Hattie & Donoghue, 2016; Santrock, 2011; Winarsieh & Rizqiyah, 2020). Many students who are not from high school in the ministry of religion or Islamic boarding schools make lecturers have to spend more effort in achieving learning goals. The results of the interviews showed that many lecturers complained about the difficulties they experienced in making the learning process effective, especially in religious subjects because many students did not have basic knowledge at all about these subjects.

Conclusion

The results of this study indicate that the application of scientific integration at Islamic religious universities in Indonesia lies in determining the scientific paradigm of each institution. UIN Sultan Syarief Kasim with the Andromeda Spiral Metaphor scientific paradigm, UIN North Sumatra with the Wahdatul Ulum scientific paradigm, UIN Ar-Raniry with the Frikatification scientific paradigm, and UIN Imam Bonjol with the An-Nahl scientific paradigm. However, the reality is that in the various scientific paradigms of each institution at the Islamic religious college there are similarities, namely the integration of general science or natural science with religious science. The results of this research also show that there are opportunities and challenges obtained by the application of this scientific integration. These include facilitating the cultivation of character in each student, facilitating the provision of religious knowledge and general science to students, as well as making it easier to train and equip students' skills study at the institution.

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