AL-ISHLAH
Jurnal Pendidikan Islam
Volume : 20
Nomor : 1
Tahun : 2022

IMPLEMENTATION OF SCIENTIFIC INTEGRATION-BASED TEACHING (AT THE FACULTY OF SCIENCE AND TECHNOLOGY UIN ALAUDDIN MAKASSAR)

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ABSTRACT

This research discusses the Implementation of Scientific Integration-Based Teaching at UIN Alauddin Makassar Faculty of Science and Technology. There are several subproblems that will be discussed in this study. First, how is the concept of scientific integration at UIN ALauddin Makassar?. Second, how is the concept of teaching at the Faculty of Science and Technology UIN Alauddin Makassar. Third, the implementation of scientific integration-based teaching at UIN Alauddin Makassar Faculty of Science and Technology. To answer the problem, the study used methods, observations or observations directly, interviewed online by phone and used questionnaires with google form and studied scientific literature related to the discussion of this study. Scientific papers are also systematic, controlled, empirical, and critical investigations of natural phenomena guided by theories about these phenomenological phenomenological approaches as well as one of the approaches used in this study. The rapid development of science in the development of science dichotomy that becomes the separation between religious science and general science that these two sciences should not be separated between the two so that in the development of the transformation of IAIN into UIN that has opened the opportunity for

the public to choose more broadly from various public faculties that become an attraction for the community. But on the other hand, public faculties that have been opened by UIN should still pay attention to the image of UIN as an Islamic educational institution. As an Islamic educational institution, UIN must implement integrated teaching between public faculties by incorporating religious content so that the integration of science becomes a characteristic of differentiating with other public campuses.
Keywords: Teaching, Scientific integration

INTRODUCTION

The development of science with various clumps, branches and rantinnya has developed very widely, ideally the development of science has a positive impact on human life, namely a smarter (intelligent) and good life that is able to build science, culture and civilization, not only have sense, and intellectual intelligence, but also social, emotional and spiritual intelligence. A wide range of sciences can ideally guide people to be able to think positively, constructively, holisticly, and they can be used to solve various problems in life. In this way, science can be used to realize God's Mercy on earth, remembering all knowledge, in fact from God. The source of knowledge in the form of the verses of Allah (revelation) is the verse of God (verse al-qauliyah),[1] the universe is the verse of God (verse al-kauniyah).[2]

The dichotomy of science into religious and non-religious sciences is actually nothing new, Islam has had a tradition of dichotomy more than a thousand years ago. But the dichotomy did not cause too many problems in the Islamic education system, until the western secular education system was introduced to the Islamic world through imperialism. This is the case,

[1]The term ayat al-qauliyah literally means verses in the form of words or words of God as found in the Quran consisting of 6,666 verses according to the version given by Abdul Wahab Khallaf.

[2] Abuddin Nata, Islam and Science (Cet. I; Jakarta: Prenadamedia Group, 2018), p. 1.

although the dichotomy between religious and non-religious sciences is well known in classical works, such as those written by al-Gazali (d.1111) and Ibn Khaldum (d.1406), he does not deny each other, but he acknowledges the validity and scientific status of each scientific group.[3]

The dichotomy of science in Islam seems to be more seen as the division of duties, specialties, tendencies, hobbies, talents, deepening and in order to obtain the deepest hikam. Among the scholars who have various skills each respect each other, respect and glorify each other. This is in contrast to the dichotomy of science that occurs in the west that does not recognize the scientific sciences of Islam, and on the contrary the sciences of Islam do not recognize western sciences with all its implications. The dichotomy of science in the west is based on hostile attitudes, mutual suspicion, deadly copy and dropping each other.[4]

This is a result of the extreme attitude of religion towards scientists, so that scientists fight and attack religion. As a way out there is a very sharp dichotomy of science.[5]

Looking at the relationship of the Quran with science is done by putting on the side of his "social psychology", and not on the side of his "history of acientific progress".[6] In addition, that in the view of the Quran, efforts to realize climate science is much more important than finding scientific theory because without realizing climate science it will result in casualties with the results of its own research. The view of the Quran towards the science of the year is not intended to see about the number or absence of the theories of science in the Quran, but rather to see whether the verses of the Quran contradict the various findings of science, and by looking at whether the Quran provides encouragement (spirit), direction,

[3]Mulyadhi Kartanegara, Science Integration: A Holistic Reconstruction (Jakarta: UIN Jakarta Press, Arasy Mizan, 2005)

[4]Abuddin Nata, Islam and Science, p. 15.

[5] Abuddin Nata, Islam and Science, p. 15.

[6] H.M. Quraish Shihab, Grounded the Quran, The Function and Role of Revelation in People's Life (Cet. XII; Bandung: Mizan, 1996), p. 41.

guidance, and guidelines for the guidelines of science. In other words, looking at the relationship of the Quran with science, not seen from the history of the development of science, but rather seen from the spirit of the Quran in encouraging the development of science.[7]

In the Qur'an it is also explained the position of the person with the knower, the word of God in QS. ali-Imran: 18

Translation:

> Allah declares that there is no god but He, who upholds justice. The Angels and the know-how.[8] There is no god but He, the Mighty, the Wise.

The above verse explains that the knowledge of religion possessed by man is not enough to develop his potential but it also takes general knowledge and God will lift the degree for the believers and knowledge as in the word of God QS. Al-Mujis:11.

Especially in universities it is necessary to integrate science, namely the combination of religious science and general science so that the scholars produced are not just skilled "carpentry" and knowledgeable but people who are more sensitive to the complexities of life, committed to the religious values of common humanity, and able to see what is essential and not essential in our civilization.[9]

It is illustrated that secular sciences developed in public colleges and religious sciences developed at religious universities separately, which are currently running, are in crisis of relevance (unable to solve many problems), experiencing manism and stalemate (closed to the search for alternatives that are more prosperous to man) and full of biases of interests (religion, race, ethnicity, philosophy, economics, politics, gender, civilization). From such a background the rapprochement between the two

[7]H.M. Quraish Shihab, Grounded the Quran, The Function and Role of Revelation in People's Lives.

[8] This verse is to explain the dignity of the people of

[9] Zainal Abidin Bagir, et al. Integration of Science and Religion: Interpretation and Reason, p. 47

scientific strongholds is an inevitation. Approchment gerekan can also be referred to as the unification movement or reintegration of scientific epistimology is an inevitable and absolutely necessary to anticipate complex and unexpected developments in the millennium as well as the global shared humanitarian responsibility in managing the limited and limited natural resources and human resources of Indonesia that are qualified as the caliph of Allah fi-al-ardh.[10]

The challenges in the era of globalization are according to the precise and rapid response of the Islamic education system as a whole. If Muslims not only want to survive amid increasingly sharp and intense global competition, but also hope to be able to appear ahead, then the re-orientation of thinking about Islamic education and the reconstruction of the system and institutional inevituation. Muslims should not be on their hands and watching from outside all the developments that occur.[11]

The development of islamic knowledge that seemed aggressive since the early 2000s, with the emergence of several names of scientists involved with this idea is reviewed to complement the latest developments especially in the country, more so since some STAIN/IAIN turned into UIN which is arguably an experimental project of islamicization of science in universities under the Ministry of Religion.[12]

Alauddin State Islamic University (UINAM) as one of the leading Islamic universities in Eastern Indonesia is constantly reforming and innovation in various sectors to improve the quality of its graduates' education and competitiveness. Distingsi UIN Alauddin Makassar as an Islamic college that also covers general sciences, namely with the

[10] M. Amin Abdullah, Islamic Studies In Higher Education: Integrative-Interconnective Approach (Cet. III; Yogyakarta: Student Library, 2012), p. 97.

[11] M. Amin Abdullah, Islamic Studies In Higher Education: Integrative-Interconnective Approach, p. 9.

[12] Khozin, The Development of Science in Islamic Religious Universities Construction Philosophical Framework and Its Measures (Cet. I; Jakarta: Kencana, 2016), p. 54.

integration of science in it, demands a concret effort to integrate religious science with general science.[13]

The transformation from IAIN to UIN has at least two important consequences. First, in a temporary agreement developed in IAIN only Islamic studies such as (theology, Jurisprudence of Islam and Tafsir) the scope of studies in UIN is expanded to include "secular" sciences. While as a large number of IAIN students mainly come from madrassas, boarding schools or rural communities. Meanwhile, UIN with public faculties will attract more students from more diverse backgrounds.[14]

UIN Alauddin Makassar is an Islamic Educational Institution so it has a Scientific Integration Guideline which contains about: First, the competency of graduates where one of its contents is "every graduate must have the competence of attitude, knowledge and skills that integrate science". Second, the content of learning and one of the options is "the curriculum should be structured based on the integration between religious science and general science in order to form students who are sincere karimah as a learning process". Third, the assessment of learning with one option is that "the assessment of learning must meet the principles of educative, opportunistic, objective, accountable and transparent conducted in an integrated manner". Fourth, the management of learning which one of its contents is "The University must set a standard of scientific integration principles in the management of learning which is a minimal criterion about planning, implementation and control, monitoring and evaluation and reporting of learning at the level of study with regard to the integration of science and religion".[15]

In the faculty of Science and Technology which is the focus of the author's study of science integration-based teaching by looking at the Quality Standards Manual of the Faculty of Science and Technology on the standards of the content of learning and the standards of the learning process

[13]UIN Alauddin Makassar Scientific Integration Guidelines Year 2013, p. 2.
[14]UIN Alauddin Makassar Scientific Integration Guidelines year 2013, p. 4.
[15] UIN Alauddin Makassar Scientific Integration Guidelines year 2013, p. 13-15.

is a derivative of the scientific integration guidelines created by the university as the basis of the implementation of an integrated pursuit between religious and scientific science or general science. There is a rationale of the standard content of learning to realize the vision, mission and purpose of UIN Alauddin Makassar Faculty of Science and Technology that reflects the ability to integrate the values of Islamic teachings with knowledge, technology and art.

In the context of scientific integration means a combination of religious science and general science, the theme of integration is the motto applied to Islamic state universities, such as "scientific integration" by UIN Jakarta, "interconnection of science" by UIN Yogyakarta, "tree of science" by UIN Malang and "house of civilization" by UIN Alauddin Makassar.[16]

Based on the motto, the author hopes that not only the motto but the most important is how it is implemented towards the development of UIN Alauddin Makassar so that everyone understands that the Islamic educational institution UIN Alauddin Makassar is an integrated science-oriented institution because UIN not only opens the faculty with Islamic studies but also public faculties such as the Faculty of Science and Technology so that the guidelines that have been made by UIN Alauddin Makassar need to be applied properly.

Based on the above description, the author raised the theme "implementation of scientific integration-based teaching in the faculty of science and technology UIN Alauddin Makassar" to know the concept of scientific integration at UIN Alauddin Makassar in depth, and to know the extent of the application of science-based teaching to the faculty of science and technology UIN Alauddin Makassar which is based on the manual of integration of science that has been neatly arranged.

Based on the above background, we can formulate the following problems: First, How is the concept of scientific integration at UIN Alauddin Makassar?, Second, What is the concept of teaching in the faculty

[16] UIN Alauddin Makassar Scientific Integration Guidelines year 2017, p. 4.

of Science and Technology?, Third, How is the implementation of science-based teaching on the faculty of Science and Technology UIN Alauddin Makassar?

The usefulness of this research is: For the development of islamic university alauddin makassar as a scientific work that can be used as a reference in the next research. For self-development researchers can develop self-potential and improve the quality of science. As a student study material in reviewing teaching based on scientific integration.

1. Scientific Integration Concept

The discourse on the integration of science and religion has been around for quite some time. Although it does not always use the word "integration" explicitly, among modern Muslims the idea of the need for the integration of science and religion, or reason and revelation (faith), has long circulated quite popularly also among Muslims the view that in the heyday of science in islamic medicine, the science of religious DNA has been integrated. In the Indonesian context, more specifically this seems to be in the discourse regarding the transformation from IAIN / STAIN to UIN, and because the content used is "reintegration".[17]

Barbaour maps four views in the typeology created, namely conflict, independence, dialogue and Integration. According to Barbour Theological Integration, cutting-edge scientific theories sought new theological implications built with regard to traditional theology as one of its sources. Integration according to Barbour has a very specific meaning that aims to produce a theological reform in the form of theology of nature with the main purpose being to prove religious truths based on scientific findings. When it comes to religion Barbour's attention is almost limited to theology and when talking about science his attention is primarily focused on the content of the most advanced theories in natural science.[18]

[17] Zainal Abidin Bagir, et al. Integration of Science and Religion: Interpretation and Reason (Cet.I; Yogyakarta: Suka Press, 2005), p. 20.

[18] Zainal Abidin Bagir, et al. Integration of Science and Religion: Interpretation and Reason, p. 21.

In different references, integration is unification to become one whole[19] or can also be interpreted as the process of blending certain values against another concept that is different so that it becomes unified and inseparable. M. Amir suggested that the integration of science meant the recognition that alltrue knowledge is from Allah and all scince should be treated with equal respect wethit is scientific or revealed.[20]

Another view of integration that according to Koentowijoyo's scientific integration is to unite or incorporate knowledge that gives scope to the activities of human reason (secularism) and also provides freedom to God and His revelations.[21]

Conceptually the integration of science and Islam in some UIN tends to differ from one another. The difference is at least if observed from the conceptualization as described in various metaphors such as UIN Malang science tree, UIN Makassar Fir Cell, UIN Yogakarta Cobwebs and Wahyu guide the science of UIN Bandung and twin tower UIN Surabaya. However, this is understandable because of the autonomy of each Islamic college.[22]

The development of science can theoretically be understood in several variants, among others: first, devising a new theory (science). In this case there has never been a theory like the new theory, and then developed a new theory at all. Second, find a new theory to replace the old theory. In this case there are already theories but the theory is not able to solve the problems that arise later then the theory is replaced with a new theory. Third, revise the old theory. In this case the development of science meant undoing the old theory, nor replacing it with a new theory, he simply revised it to simply perfect that old theory. Fourth, undoing the old theory, he

[19] W.Y.S. Poerdowasminto, Konsosrium Bahasa Indonesia (Jakarta: Balai Pustaka, 1986), p. 384.

[20] M. Amir Ali, Rmoving the Dhycotomi of scince, http//www.futureislam.com

[21] Kuntowijoyo, Islam As Epistimology, Methodology and Ethics (Yogyakarta: Tiara Wacana, 2006), p. 55.

[22] Khozin, Development of Science in Islamic Religious College Construction of Philosophical Framework and Its Steps, p. 16.

simply canceled not replacing it with a new theory, but still said to develop science.[23]

The meaning of Religious Science (Islamization). The definition of Islamization with a broader meaning in the context of Malay and Indonesian is given al-Attas. Islamization means the liberation of man from magical, mythological, animistic, national culture and then secular control over reason and language (Islamization is the liberation of man first from magical, mythological, animistic, national-cultural tradition opposed to Islam, and then from secular control over his reason and his language).[24] Because a Muslim is reasoned and his language is no longer controlled by the supernatural, mythology, animism, superstition, national traditions and culture and secularism.

The epistimological revolution that came to be known as the islamization of contentporer knowledge. The islamization of science thus seems to have awakened Muslims from their sleep. If the term islamization is not used it does not necessarily attract the attention of many Muslim scholars as well as non-Muslims as well as activists. Thus this concept is not just a selogan, symbol, motto or empty rhetoric without any meaning.[25]

Islam sourced from the Quran and as-Sunnah is the religion of knowledge. Islam sees knowledge as the main way to save lives and achieve human happiness and well-being in life now and then. Through the export of the values contained in the two main sources can be found a very valuable knowledge for mankind both to meet its intellectual and spiritual needs, most importantly to obtain certainty in the knowledge of God. In addition,

[23] Ahmad Tafsir, Philosophy of Islamic Science, in the Consortium of Sciences of Sunan State Islamic University Mount Djati Bandung, UIN Science View Wahyu Memandu Ilmu (Bandung: Gunung Djati, 2008), p.48-49.

[24] Syed Muhammad Naquib al-Attas, Islam and secularism (Kuala Lumpur: Art Printing Works, 1993), h. 182.

[25] Rosnani Hashim dan Imron Rossidy, Islamization of kwoledge, h. 21.

science also serves to help people in meeting their needs both at the individual, family and community level.[26]

The meaning of science. In the Great Dictionary of Bahasa Indonesia, science is defined as knowledge or cleverness, be it everything that enters into the type of mentality or with regard to the state of the hereafter, the knowledge of all things after living in this world. Moral science for example speaks of human habits.[27] In English, science is a translation of the word science; science of language is defined as language science; science of fiction means imaginary story is scientific.[28]

Science serves to explain a symptom or phenomenon that can be observed and plausible, with the science of everything can be explained natural science serves as the basis of the birth of technology; social sciences serves to underlie a concept of development or social planning for the future for example; religious science serves as the foundation of spiritual, ethical, moral and behavioral; philosophy serves as the basis for the development of various sciences; and the science of intuition serves to do inner integration and spiritual enlightenment. Science has many functions depending on how humans use it. Therefore, in fact the science in terms of its object is neutral, depending on the human to use it.[29]

In the study of philosophy of science, the objectivity of science is then considered not absolute. Scientists are not just researching objects and concluding the results as they are. But in scientific activity the subjective elements of the researchers are also not involved. The study of philosophy of science also shows that not only the ethical value exists in the body of science, but the metaphysical views or philosophical assumptions held by scientists, whether based or not. Being a paradigm that not only influences

[26] Osman Bakar, Tahwid and Science: essays on the History and Philosophy of Islamic Science, ter.: Yuliani Liputo (Bandung: Pustaka Hidayat, 1994), p. 247.

[27] See W.J.S. Dictionary of Great Indonesian Language (Jakarta: Balai Pustaka, 1991), p. 373.

[28] See John M. Echoll and Hasan Shadily, English Dictionary of Indonesia (Cet. VII; Jakarta: Gramedia, 1980), p. 504.

[29] Abuddin Nata, Islam and Science, p. 26-27.

the process of achieving truth but also directs interpretation of the findings achieved, even becomes a guideline for the ethics of its application.[30] The study of philosophy of science also shows that not only the ethical value exists in the body of science, but the metaphysical views or philosophical assumptions held by scientists, whether based or not. Being a paradigm that not only influences the process of achieving truth but also directs interpretation of the findings achieved, even becomes a guideline for the ethics of its application.[31] The view above is that science absorbs outside elements such as ideology, world or ethics. Even these elements become an important or integral part of the development of science. In this context religious elements are incorporated into the body of science by certain thinkers to solve problems in science. This became a form of efforts to build a relationship between religion and science that historically occurred polarizing forms of relationships.[32]

According to the modernization approach, that science is value-free, neutral, objective, and universal. The values that every person has in this nature does not affect the content of science, if modernization considers that nature is what it is. Modernists legitimize their position by establishing modern sciences as authentic And relevant Islam to the problems of contemporary Islamic civilization. Proponents of the modernization approach argue that their approach is authentic because: 1). The Quran and the Prophet advocate both seeking knowledge; and 2). Modern knowledge is part of The Islamic heritage. In terms of modernization proponents argue that: Modern knowledge solves the problem of Islamic civilization as well if the government provides the necessary infrastructure and lets them continue their research freely from the constraints of government and clerics.

[30] Ach. Maimun Syamsuddin, Multidimensional Integration of Religion & Science (Cet. I; Jogjakarta: IRCiSoD, 2012), p. 31.

[31] Ach. Maimun Syamsuddin, Multidimensional Integration of Religion & Science (Cet. I; Jogjakarta: IRCiSoD, 2012), p. 33.

[32] Ach. Maimun Syamsuddin, Multidimensional Integration of Religion & Science, p. 34.

Proponents of the indigenous approach say the crisis of Islamic civilization resulted from the division of science into two separate strongholds, namely: "rational" or "modern" science and Islamic sciences (it is al-Fiqh/legalusul theory, 'ilm al-kalam/theology, interpretation/Qur'aic science, hadith science, or al-tajwid science). They argue that the division of institutionalized science in the education system throughout the Islamic world, needs reform to reunite science. The education system was reformed to produce individuals who had integrated knowledge relevant to Islamic civilization.[33]

Based on the description of the islamization of science, it can be concluded that religious science is all knowledge sourced from the Quran and hadith is then developed in a knowledge based on existing theories and logical and rational according to scientific methods.

2. Teaching Concepts

Teaching is an activities related to the dissemination of science that include the activities of planning, management, delivery, guidance and assessment. In summary, teaching is a process to convey and contribute ideas and facilitate the way science is fostered, set standards and foster creativity to help a student to learn and steer students towards achieving optimum potential.[34]

Teaching is a peroses of the delivery of science. Some definitions of teaching are as follows:

a. Effective teaching designs topics, objectives, content, ways of designing and assessing accordingly.
b. Teaching is an action that aims to bring about change in terms of beliefs, values and meanings.
c. Teaching is an intellectual.
d. Teaching is thought, feeling, and penialain.

[33] Khozin, *Pengembangan Ilmu Di Perguruan Tinggi Keagamaan Islam Konstruksi Kerangka Filosofisdan Langkah-Langkahnya*, h. 19.

[34] https://duniapendidikanipg.blogspot.com/2012/10/konsep-pengajaran-dan-pembelajaran.html

e. Teaching is an active system that is shown to students in hopes of bringing about a change in behavior among them.
f. There are two types of teaching, namely current teaching and traditional teaching.
g. In the latest teaching, there is teaching that focuses on students (student centers).
h. In traditional teaching teaching focuses on teachers or lecturers (Teacher center).[35]

There is a general view in Indonesia that important religious lessons are given in schools because religion is a sublime form of morality and ethics. However, the problem is that this kind of overly simple way of thinking often makes us forget about so many of the problems that religion poses. At this point, usually people also fend off by saying that the wrong is not the religion, but the human being. The religion is from God, it cannot be wrong and bad, man is wrong. These kinds of ways of thinking make people who are well-knower even more likely to harass religion, or who make their own religion degenerate their dignity.[36]

Various opportunities towards healthy interaction between science and religion in the college curriculum. These opportunities exist, for example, in public courses (MKU), curricular activities or extracurricular activities.[37]

3. Implementation of Scientific Integration-Based Teaching

Between science and religion there is actually quite a fundamental difference to consider: First, the mind-set is fundamentally different. Science rests on an ethos of autonomy of understanding. As the French emphasized bacon and Newton, true scientific attitudes depart from the

[35] http://chulayda-bassama.blogspot.com/2012/02/konsep-dan-makna-pembelajaran-dan.html

[36] Zainal Abidin Bagir, et al. Integration of Science and Religion: Interpretation and Reason (Cet.I; Yogyakarta: Suka Press, 2005), p. 47-48.

[37] Zainal Abidin Bagir, et al. Integration of Science and Religion: Interpretation and Reason (Cet.I; Yogyakarta: Suka Press, 2005), p. 49.

courage of thinking and observing themselves without relying on the authority of other people's opinions or any supernatural institutions. Second, science is relatively more open to new views as long as it is reasonable and supported by sufficient factual evidence. Religion on the contrary although it is generally believed that man is obliged to use his mind to understand revelation and scripture, in reality religions tend to be very defensive towards new understandings.[38]

In addition to facing their own internal problems, science and religion must face a shared global problem characterized by increasingly worrying market permissiveness (anything can be carried out economically profitably); structural injustices on a global level that are increasingly causing concrucibling turmoil in the form of terrorism or the gelagat of war; the principle of survival of the fittest that is increasingly strengthening on the practical plains; various tendencies of self-destruction.[39]

The paradigm of interconnection is the answer or response to the difficulties felt during this time, which were inherited and passed on for centuries in Islamic civilization about the dichotomy of public education and religious education. Each stood alone without feeling the need and reprimanded each other. This difficulty apparently had a structural-political impact with the establishment of the Ministry of National Education and the Ministry of Religious Education at the beginning of the Republic's ministry. The separate two departments, especially in terms of education add to the perfection of the dichotomy in question. Over time, efforts to re-draw the gap between the two, especially in educational areas, are increasingly apparent.[40]

[38]Zainal Abidin Bagir, et al. Integration of Science and Religion: Interpretation and Reason (Cet.I; Yogyakarta: Suka Press, 2005), p. 41.

[39] Zainal Abidin Bagir, et al. Integration of Science and Religion: Interpretation and Reason, p. 44.

[40] M. Amin Abdullah, Islamic Studies In Higher Education: Integrative-Interconnective Approach (Cet. III; Yogyakarta: Student Library, 2012), p. viii.

The development of Islamic education, more or less on higher education requires basic planning especially on the philosophical framework of his studies. Development in other aspects, such as human resources, and campus infrastructure is to support the achievement of vision, mission and educational objectives in order to produce the desired graduates of science development at Islamic-based universities must be based on the basic sources of Islamic teachings that expressly do not dichotomy science and religion. This means ontologically, Islamic education does not recognize the dichotomy that contradicts the revelation (revalation) and reason (reason).[41]

The meeting point between religious science and general science is that science is able to help religion revitalize itself in several ways. First of all, the critical consciousness and attitude of reality shaped by science is very useful for peeling off the ilusoris sides of religion, not to destroy religion, but rather to find things more essential than religion. In its praxis, many things in religious life may be ilusoris, which makes religions oversensitive so that it is easy to cause conflict that ultimately slits the dignity of the religion itself unnoticed. Secondly, the logical ability and prudence to draw conclusions nurtured in the scientific world makes us able to critically assess all new forms of interpretation that are now increasingly frenzied and confusing. Third, through its latest findings science can stimulate religion to constantly respond to a rethink of new beliefs and thus prevent the religion itself from the dangers of stagnation and appen there. Fourth, the findings of science and technology can provide opportunities for religion to further realize its ideals concretely, especially when it comes to general humanity.[42]

On the contrary, religion can actually help science to remain humane, and always be aware of the concrete problems it must face. First, religion can always remind that science is not the only path to the truth and

[41] Abdurrahman Mas'ud, Initiated Nondicotomic Education Format, Humanism, Religion as Paradigm of Islamic Education (Yogyakarja: Gama Media, 2002), p. 44-48.

[42] Zainal Abidin Bagir, et al. Integration of Science and Religion: Interpretation and Reason, p. 45.

the deepest meaning of human life. In the human world, there is a willingness of inner experience that forms meaning and value. And it is a territory that is not much touched by science, an ambigo territory but real. Second, religion can also always remind science and technology to always defend the value of human life even above the advancement of knowledge itself.[43]

In Islamic educational institutions integrated teaching is needed so that graduates of the institution not only have a secular understanding or a general understanding, but also have a religious understanding that is a guide in wading through the course of his life.

Teaching based on scientific integration can provide the benefit of integrated scientific understanding due to the balance in knowledge between the value of Islamic teachings and the understanding of science in general. And allah is all-knowing, all-wise. So that man is in desperate need of religious science as well as general science.

RESEARCH METHODS

1. Types and Locations of Research

This type of research is descriptive quality research and research site at UIN Faculty of Science and Technology Alauddin Makassar, which background researchers choose the location is the author with a scientific background lecturer integration in the faculty of science and technology majoring in regional and city planning techniques so as to require the author to know the conditions in real time on the faculty where the researcher is in charge , for example, in terms of teaching for lecturers in the faculty of science and technology who apply the integration of science in the teaching process as proof that UIN Alauddin Makassar has scientific integration guidelines that must be applied in every major in UIN Alauddin Makassar.

[43] Zainal Abidin Bagir, et al. Integration of Science and Religion: Interpretation and Reason, p. 46.

2. Research Approach

As for the approach used by researchers in this study:

a. Phenomenology

Based on observations researchers looked at the growing phenomenon of UIN Alauddin Makassar faculty of science and technology about integrated teaching is less maximal.

a. Normative

Normative approaches are needed in this study because researchers need an in-depth study of the meaning of scientific integration-based teaching.

b. Psychological Approach

The psychology approach is a psychiatric approach, to get information researchers must have the soul science to animate the character of different informants so that it takes psychiatry to know the problems that researchers need.[44]

3. Data Source

A data source is a place, person or object where researchers can observe, ask or read about things related to the variables studied. The data source can be broadly distinguished over person, place, and paper.[45]

A data source is a necessary source for collecting the necessary data in research. Data sources consist of nature, communities, agencies, individuals, archives, libraries and so on. The data source consists of two sources namely primary and secondary, the primary data source is a data source that is considered basic and important in collecting data while the secondary data source is the supporting or supporting data source of the primary data source if needed.[46]

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[44] See: Abuddin Nata, Methodology of Islamic Studies (Cet. IX; Jakarta: RajaGrafindo Persada, 2009), p. 28.

[45] Suharsimi Arikunto, Research Management (Cet. XI; Jakarta: Rineka Cipta, 2010), p. 99.

[46] Etta Mamang Sangadji, Practical Approach Research Methodology in Research (Yogyakarta: AndiYogyakarta, 2010), p. 169.

a. Primary data source

The main data obtained by the researcher directly from the informant chosen according to the observations of the lecturer researchers at the faculty of science and technology UIN Alauddin Makassar

b. Secondary data source

Secondary data is supporting data from data needed by researchers such as researchers need documents in the form of quality standard manuals in the faculty of science and technology and require guidelines for the integration of UIN Alauddin Makassar.

4. Data collection method

Data collection methods are ways that researchers can collect data. A way that points to something abstract, cannot be manifested in an invisible object, but can only be showed its use. Listed as research techniques are: quistionnaire, interview or interviu (interview), observation, test or test, documentation, and so on.[47]

a. Observation

Observations are made to obtain information about human behavior as it occurs in reality. With obseravation can be obtained a clearer picture of social life, which is difficult to obtain by other methods. Observations are also made if there is not much information about the problem. Observation is required to explore research. So, observation serves as exploration. From these results can get a clearer picture of the problem and provide instructions on how to solve the problem.[48]

Researchers conduct observations or weaning directly at the research site to find out the real condition of the location and informants who will provide the information and data needed.

b. Interview

[47] Suharsimi Arikunto, Research Management, p. 100-101.

[48] S. Nasution, Research Method : Scientific Research (Cet. VII; Jakarta: Bumi Aksara, 2006), p. 106.

An interview or interview is a form of verbal communication. So, a kind of conversation aimed at obtaining information. In questions and answers are given verbally. Usually this communication is done in a state of facing each other. However, communication can also be carried out over the phone.[49]

To obtain valid data, researchers used interview methods to inform either directly or indirectly such as by phone in accordance with the interview guidelines that have been made. In these circumstances the researcher chooses to collect data using the google form.

c. Documentation

Obtaining data should be supported by dokemntasi both videos, photos and documents related to this research.

5. Research Instruments

Research instruments are tools chosen and used by researchers in their activities to collect data so that the activity becomes systematic and made easier by it. Research instruments that are interpreted as aids are means that can be realized in objects, such as questionnaires (quistinner) matching lists (Checklish) or interview quide interview squidule observation sheets or observation schidule (observation schidule) about tests that are sometimes referred to only by tests, inventory, scale (scala), and so on.[50]

a. Observation guidelines

b. Interview guidelines

c. Google form

d. Cameras and supporting documents

6. Data management and analysis techniques

Activities in data analysis or data processing process follow Miles and Huberman theory through three stages, namely data reduction, data

[49] S. Nasution, Research Method : Scientific Research, p. 13.
[50] Sumadi Suryabrata, Research Methodology, p. 101.

presentation (data display) and data verification or conclusion withdrawal.[51] The collected data is then processed and analyzed with the following steps:

a. Data Reduction

Data reduction is the process of selecting, simplifying, abstracting and transforming newly acquired rough data from the field. Data reduction is done continuously.[52]

In the field of education, after the research enters the setting of UIN Alauddin Makassar Islamic college as a research site, in reducing the data then the researcher will focus on the lecturer who carries out the teaching process.

b. Presentation of Data

Data presentation or data display. If in quantitative research the presentation of this data can be done in the form of tables, charts, phichard, pictograms and the like. Through the presentation of the data, the data is organized, arranged in a pattern of relationships, so that it can be easily understood. In qualitative research, data presentation can be done in the form of briefs, charts, relationships between categories, flowcharts and the like.[53]

The presentation of data in qualitative research is the presentation of data that can be done in the form of briefs, charts, relationships between categories, flowcharts and the like. By displaying the data, it will make it easier to understand what is happening, plan the next work based on what has been understood. "looking at display help as to understand what is happening and to do some thing-further analysis or cousin on that understanding". Furthermore, it is recommended, in displaying data, in

[51] Sugiyono, Qualitative Quantitative Approach Education Research Method, and R&D, p. 246.

[52]Masykuri Bakri, Qualitative Research Method: Theoretical and Preaktek Review (Surabaya : Visipress Media 2009), p. 183.

[53]Sugiyono, Qualitative Quantitative Approach Education Research Method, and R&D, p. 341.

addition to narrative text can also be charts, matrik, network (network) and chart.[54]

At this stage, researchers presented data from the study to more easily understand in the form of a description of the implementation of teaching based on scientific integration

c. Withdrawal of Conclusions

The third step in the analysis of qualitative data according to Miles and Huberman is the withdrawal of conclusions and verification. The initial conclusions presented are still temporary, and will change if no strong evidence is found that supports the next stage of data collection. But if the conclusions are presented at an early stage, supported by valid and consistent evidence when researchers return to the field collecting data then the conclusions presented are credible conclusions.[55]

d. Data validity testing

Data validity tests in research, often only determined on validity and reliability tests.[56] The data test conducted by the researchers is to extend if necessary and increase diligence in researching.

The authors compiled a report on the results of data collection, which is the result of observations and interviews. After the preparation of this report, research results are obtained in compiling a report on things related to the purpose and purpose of research that is then systematically compiled based on reporting procedures.

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