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Paradigm of Integration of Science and Religion in Indonesian Islamic Universities

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Abstract

This study aims to evaluate the formulation of the science education curriculum in Indonesian Islamic Universitie through an integrated paradigm of science and religion. This study uses the literature review method to form a knowledge metaphor. Because this integration pattern includes philosophical, methodological, material, and strategic levels, it cannot be measured normatively. The integrated paradigm of science and religion must be implemented in an interdisciplinary integrated curriculum. Both science and religion must be distributed concentrically to differentiating courses to formulate a well integrated curriculum.
Keyword: Distinction courses, integrated curriculum, science and religion

Paradigma Integrasi Sains dan Agama pada Perguruan Tinggi Islam Indonesia

Abstrak

Pada artikel ini dapat dijelaskan bahwa perlu adanya integrasi lembaga pendidikan antara Penelitian ini bertujuan untuk menganalisis pengamplikasian integrasi sains dan agama di perguruan tinggi Islam Indonesia melalui paradigma integrasi sains dan agama. Penelitian ini menggunakan metode *literature review* untuk membentuk metafora pengetahuan. Karena pola integrasi ini meliputi tataran filosofis, metodologis, material, dan strategis, maka tidak dapat diukur secara normatif. Paradigma terpadu sains dan agama harus diimplementasikan dalam kurikulum terpadu interdisipliner. Baik sains maupun agama harus didistribusikan secara konsentris ke mata kuliah-mata kuliah pembeda untuk merumuskan kurikulum terpadu dengan baik.
Kata Kunci: Program unggulan, kurikulum terpadu, sains dan agama

INTRODUCTION

The discourse on the integration of science and religion was discussed again this year, as well as the opening of general/non-religious faculties at various Islamic State universities (UIN) in Indonesia, both symbolically and significantly. Genealogically, we can see the complexity of the interaction between science and religion in the debate between the textually understood dimension of faith and the understanding of science that marginalizes religious doctrine, because it is often considered inconsistent with common sense arguments. , science and religion were born from the womb. The same domain, namely the domain of human "experience". The experience in question can be hushuli or hudhuri. So far, there is still a strong opinion in the wider community that "religion" and "science" are two entities that cannot be reconciled. Both of them have separate domains from each other, both in terms of formal material objects, research methods, criteria of truth, and the role played by scientists. In other words, science doesn't care about religion and religion doesn't care about science.[1]

After this dichotomy was prolonged, rationalists realized that the scientific method could examine physical things, but they could not explain the problems of metaphysics. That is, the dichotomy has difficulty answering the essential truth of any metaphysical problem. Instead, religion began to realize that science and technology were far from the happiness of the world. Recently, both scientists and clergy have attempted to implement an integrated paradigm for the relationship between science and religion. Because the study of physics and metaphysics leads to the emergence of an integrated comprehensive study. Humans can verify truth through the scientific method. Furthermore, religion is a way of generating meaning.[2]The scientific method can be applied to the study of physics because its parameters can be tested and generalized. Metaphysical parameters cannot be tested by scientific methods but can only be felt by a devoted heart. If physical studies are followed by metaphysical studies, they will create real knowledge. Thus, all knowledge aims to understand the existence of God.

The Qur'an as the main source of Islamic law contains extraordinary information. In addition to discussing God, human creation, supernatural beings such as angels, jinn, and demons, the Qur'an also discusses the universe, earth, sun, moon, stars, water, mountains, thunder, sea, animals and plants. The Qur'an also discusses salvation, both in this world and in the hereafter. Based on the Qur'an which provides many explanations about natural phenomena (kauniyyah), it is easy to integrate science and religion based on knowledge from the Qur'an.[3]

Uniting the Islamic sciences with science is one form of manifestation of the reaction against secularism that dominates science and religion, and has

created such a sharp gap between religion and science, they claim that methodologically science and religion have different ways of explaining a truth.[4]The scientific method is objective, obtaining experimental results by observing, analyzing data, interpreting, verifying, and drawing conclusions. Religious methods are generally subjective, depending on intuition or personal experience and the authority of the Prophet or scriptures. Because the scientific method is not sufficient to understand reality, while religion needs to understand reality.[5]

Although religion and science have different paradigms, both have the same commitment in seeking the truth.[6]Science is based on the existence of a cause, while religion looks for the meaning behind the event. for science the term "cause" is a series of causalities that can be observed empirically. While the term "meaning" is the essence of significant understanding, and is an important thought, although it is sometimes vague. The difference between the terms "cause" and "meaning" is the question of relativity, which means that science answers the "how" question, while religion answers the "why" question.

The integration of religion and science raises intellectual awareness of religion, which cannot be separated from the question ("how") that allows religion to understand natural phenomena. Today, the doctrines in the scriptures are not sufficient for religious truth without scientific explanation. In this context, the meeting point between religion and science is very possible. In addition to these reasons, it shows that religious values can be used as ethics to develop science. Thus, they are not far from universal values that apply to the whole world. Awareness of values can bridge religion with science. In the context of religion, axiology views life as the basis for constructing facts. Therefore, the system of science and value cannot be separated because they are closely related. Science is a function of the teachings of revelation.[5]

There are several approaches available for integrating science into religion. The first approach is to start from scientific data that offers conclusive evidence for religious beliefs to produce agreement and realize the existence of God. The second approach is to examine religious doctrines to relate them to scientific theories. In other words, religious beliefs are tested with certain criteria and reformulated by the latest scientific findings. Then the thought of religious science is interpreted philosophically with the same conceptual framework.

The concept of integration provides a temporary approach to God and man in science. Thus, scientific integration is not 'secularism', nor is it 'hermitage'. This resolves the conflict between extreme secularism and radical religion in many sectors. Because integration can be done on two or more things, science and

religion can complement each other. This research integrates and integrates the perspective or mindset of science (eg scientific-rational-empirical) in religion (eg normative-transcendental theology). Thus, it is formulated to differentiate the science education curriculum in Islamic universities. The two paradigms are one of the variables in the integrated curriculum.

The preparation and development of an integrated curriculum in Indonesian Islamic universities has not been carried out systematically. Because the concept of scientific integration is still at the normative-philosophical level, the university is looking for the right form of application. The normative features of the concept cannot be carried out operationally and accurately measured.[7]

Indonesian Islamic Universities have integrated science into religion by linking each subject with verses from the Quran or Hadith. The verses of the Qur'an inspire people to think scientifically.[8]However, all subjects cannot be discussed in an integrated manner with verses of the Koran or hadith. Therefore, the integration pattern of the totalistic monadic model is difficult to apply. Meanwhile, curriculum development includes: (a) specific objectives, (b) cultural conceptions, (c) tensions between uniformity and cultural diversity, (d) social pressures, (e) social change, and (e) future planning. Furthermore, curriculum development must address two important questions: (1) What subject knowledge is most beneficial to students? (2) How should be arranged to make students master these subjects?[9]

The Islamic University of Indonesia has linked the subject matter with Islamic values (for example, verses and hadiths). Thus, it has linked Islamic values with the material in the syllabus of any subject.[10]An integrated curriculum like this is expected to only lead to a pattern of dialogical integration. There has been no concern about the differentiation of subjects as the main goal of learning. In addition, this program has not concentrated on the right course of study or distribution. Given these unexplored problems, this study tries to answer the question “How are science and religion integrated into the curriculum? The purpose of this study is to integrate science into religion to formulate a different science education curriculum at Indonesian Islamic universities.

RESEARCH METHOD

The method used in writing this article is the library method. Data collection is done by analyzing and/or browsing several journals, books, both printed and electronic documents, as well as other sources and/or information related to the topics discussed. The data analysis technique used in this research is content analysis. To maintain the conservation of the assessment process and

check among the literature.[11]Sources of data were carried out by web searches using the following databases: Google Scholar, Ebsco-host, Research gate, Sage Journal, Scientific Electronic Library Online (SciELO), J-LAS journal article links and others.

RESULTS AND DISCUSSION

In Indonesia, there are several universities that have integrated religion into science, substantially referring to the same estuary. Namely eliminating the dichotomy of truth between revelation and science concerning the implementation of the educational process. However, every Islamic university in Indonesia has a different knowledge metaphor about the concept of 'knowledge integration.

Integrating science into religion at Indonesian Islamic universities uses the metaphor of knowledge (a combination of science and religion). Several countries that adhere to the concept of a worldview and integrate religion into their education system through compulsory subjects, strengthen the role of campuses as places of worship. Integrating science into religion in Indonesian Islamic universities provides a provocative approach to school subjects between science and religion.

The typology of the relationship between science and religion consists of four views: Conflict, Independence, Dialogue,and Integration. A typology of conflict that places science and religion in two opposite extremes, requires humans to choose one of them. Each gathers its adherents by taking the opposite position. Both of them acknowledge the validity and existence of science and religion. In an independent typology, scientists are free to carry out their activities without involving theological elements because the methods and subject matter are different. In the typology of dialogue, science is built on human observation and reasoning, whereas theology is based on revelation.[5]

The integrated paradigm between science and religion has attracted the attention of six Indonesian Islamic universities: (1) At Syarif Hidayatullah State Islamic University, Islam does not recognize the dichotomy of knowledge because the source of all knowledge is God.Therefore, the developed knowledge paradigm brings science together with the truth of revelation. (2) At Sunan Gunung Djati State Islamic University, religion and science develop along with the dynamics of human knowledge and thought. Similarly, science is founded on deep reasoning about objects created by God, but God Himself is the source of all knowledge. Combining natural phenomena with the verses of the Qur'an creates a scientific paradigm based on revelation and rationality. (3) At Sunan Kalijaga State Islamic University, Islam develops universal knowledge and does not recognize the

dichotomy between religious verses, natural phenomena, social sciences, and ethical-philosophical knowledge. (4) At Sultan Syarif Kasim State Islamic University, science that is equally oriented combines science with natural science, society, and philosophical ethics. (5) At the State Islamic University of Maulana Malik Ibrahim, the Qur'an and Hadith are positioned in the development of science as a source of revelation while the results of observation, experimentation and logical reasoning are positioned as sources of natural phenomena. Thus, various sources of knowledge are found in the sources of the Qur'an and Hadith. (6) Alauddin State Islamic University has made the Qur'an and Hadith the center of knowledge. These two sources inspire knowledge in the next layer. Experimentation and logical reasoning are positioned as sources of natural phenomena. Thus, various sources of knowledge are found in the sources of the Qur'an and Hadith. (6) Alauddin State Islamic University has made the Qur'an and Hadith the center of knowledge. These two sources inspire knowledge in the next layer. Experimentation and logical reasoning are positioned as sources of natural phenomena. Thus, various sources of knowledge are found in the sources of the Qur'an and Hadith. (6) Alauddin State Islamic University has made the Qur'an and Hadith the center of knowledge. These two sources inspire knowledge in the next layer.[5]

The concept of integration in six Indonesian Islamic Universities is still normative and cannot be measured operationally. This concept, which can be operationalized to design the curriculum of any Islamic university, can be applied to the graduate profile. Also, it can facilitate student achievement levels by integrating strategies and media into knowledge measurement tools. Agus Purwnto's thoughts on the epistemological methodology of Islamic science are: (1) Al-Qur'an, hadith and nature are the basic foundations for building knowledge. (2) the process of synthesizing scientific integration, understanding revelation and other scientific treasures. (3) the new paradigm of science is the revelation paradigm.[12]

Integrating learning materials from various subjects into a theme or several subjects from various disciplines can eliminate subject boundaries.[13]The integrated curriculum departs from the concept of unity, which is meaningful (which has certain benefits) and is structured (assuming that every part of the unity is located and functions in a certain structure).[14]Children's education forms the totality of the whole child and cannot be separated from the cognitive, affective, and psychomotor aspects of the child. Therefore, the integrative curriculum is intended to educate someone who has the potential to live in society.

However, both science and religion have not been limited and studied comprehensively by distinction courses. So far, the Islamic University of Indonesia

has burdened compulsory undergraduate courses from the standard number of credits by challenging the integrated science and religion curriculum. Educators find the overloaded syllabus difficult to provide additional classes to cover all subjects.[5]

Understanding of science does not integrate religious values into the profile of understanding science in Islamic universities. That is, it is the same as a state university. Indeed, Islamic university graduates are only distinguished by a deeper understanding of religion. They formulate the concept of integration into the philosophy, methodology, subject matter, and strategy level. Because the concept of integration that is built is still normative, the level of achievement cannot be measured. The expected integration between Islamic religious education and Science/Technology provides Islamic religious education material interspersed with science/technology. However, the real integration explains how Islamic religious education materials support the facts of science and technology.[15]

The integration of religion into science requires basic knowledge to reach the meaning of the paradigm. Creating an integrative curriculum of science and religion is not possible unless the basic material is understood. Therefore, the paradigm study material must be balanced. In the view of Fogarty (1991) and Drake (1998) described in the journal written by[5]an interdisciplinary approach is the right way to integrate science into religion. This concept should not only be normative but should also be implemented in the integrated curriculum of Indonesian Islamic universities. Indonesian Islamic universities have formulated knowledge metaphors such as the tree of science, the spider web, and the wheel to integrate science into religion.

The integrated distinction between science and religion has not been applied in comprehensive studies at Indonesian Islamic universities. Integrative science and religion (differentiated courses) should be formulated in Islamic universities to differentiate them from general universities. Differentiating courses in the perspective of an integrated curriculum must combine the paradigms of science and religion. The distinction of these subjects should be used as the content of the core curriculum to achieve the content of the religious curriculum and the general curriculum. Distinguishing courses must be formulated in the compulsory courses of the study program after the science and religion courses are delivered.

To obtain an integrated study of science and religion, science courses must be supported by language, scientific literacy, and research methods, which are distributed concentrically in differentiating subjects.This distinguishing course

must be coherent with the central learning component of the curriculum or the distinguishing course that develops the curriculum model, claiming that the community provides the primary focus of the course. In this case, differentiating courses act as communities in the integrated science curriculum.

CONCLUSION AND SUGGESTION

Based on the results and related arguments, it can be concluded that the concept of a normative integrated curriculum formulated by Indonesian Islamic universities must be carried out in an interdisciplinary approach that is integrated in a connected model. The integrated curriculum must concentrically distribute science and religion to courses.

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