Mapping out the Implementation of Science-Islam Integration on University Students' Thesis at UIN Maulana Malik Ibrahim Malang 2011-2016

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Keywords: Integration, Islamization of knowledge, tree of science, Islam and science.

Abstract: The institutional conversion of IAIN into UIN is then followed by the policy of implementing integration of knowledge (with Islam) as a distinctive character compared with secular universities in Indonesia. This research aims to investigate the typology of 'integration' from students's thesis at UIN Maulana Malik Ibrahim. It also tries to find out how far the integration implementation has been taken place. This study limits the scope only in the students' thesis wtitten from 2011-2016. It uses library research and to sharpen the analysis, the researchers use content analysis techniques, where it emphasizes on scientific analysis of the message content of a communication. The findings reveal that to some degree the implementation of 'integration' has already shown the fruit of the tree of science –the distinctive school of integration embraced by UIN Malang. The lack of similarity in the pattern and the integration model in the thesis writing is because the tree of science is not a pattern or model that offers instructions and practical steps for a research and thesis writing. The tree of science model works only in the infrastructure and superstructure level. Such integration will, of course, be difficult to follow and standardize because the university is just like providing the material solely, and the process of how to integrate and interconnect is left to each individual to formulate themselves. Up to the year 2016, the exixting model of AMT, AMTT, comparasion of mufassir, meaning analysis, DKM, Paragraph and Tafseer inclusion, paragraph inclusion that are used by students in their thesis writing are still limited to interconnection type of 'integration'. These instructions give you basic guidelines for preparing papers for conference proceedingshe abstract should summarize the contents of the paper and should contain at least 70 and at most 200 words. It should be set in 9-point font size, justified and should have a hanging indent of 2-centimenter. There should be a space before of 12-point and after of 30-point.

1 INTRODUCTION

Integrating or interconnecting (experimental and social) sciences and Islam has become the most crucial discourse and greatest concern for students whom are in colleges and universities under Ministry of Religious Affairs of Indonesia. This trend has been mushrooming in line with the conversion of State Islamic Institutes (IAIN) into State Islamic universities (UIN) such as UIN Sharif Hidayatullah Jakarta, UIN Sunan Kalijaga Yogyakarta, UIN Maulana Malik Ibrahim Malang, UIN Sunan Ampel Surabaya, and others. This institutional change is then followed by the necessity of implementing integration of knowledge (with Islam) as a distinctive character compared with

universities under Ministry of Education and Culture of Indonesia. This dictinction has eventually become the national policy that has to be implemented for all higher educational institutions under Ministry of Religious Affairs of Indonesia.

One of legitimating reasons held by Ministry of Religious Affairs of Indonesia on this conversion is to prove their notion that there is no dichotomy of sciences in Islam. Science dichotomy--felt by Ministry of Religious Affairs--has caused inequality in educational management that leads to inferiority and lack of quality. In addition to that the existence of science dichotomy has also influenced in the shaping of community's point of view. For Indonesian Muslims, many still hold an idea that only Islamic sciences such as fiqh , ulum al-qur'an, hadith, tasawuf, and so forth which are mandatory to

be studied while the general sciences such as physics, chemistry, sociology, and others are considered as secular sciences and therefore are treated as only secondary. Therefore, it is necessary to have a new science paradigm so that it will transform Islamic universities to become the center in developing the unity between human and revealed sciences. Several Moslem scientists have already made concepts to reconcile general and religious science which has been opposed one another for decades. One of them is the concept of "Islamization of Science ". (Kano, 2000) Beside the term "Islamization", there are also terms such as naturalization of science (Kartanegara, 2003), scientification of Islam (Kuntowijoyo, 2006), Islamic science and so forth. Starting from these sacralization science concepts than there is an idea to make integration of science as a prerequisite in doing conversion at Islamic institutions.

There are several science-integrated models that have already been formulated by some institutes and Islamic higher schools that already metamorphosed as universities among them is a spider net science model developed by UIN Yogyakarta, the concept of a science tree model presented by UIN Malang, concept of integration of general science and religious science model initiated by UIN Ciputat Jakarta, while , UIN Sunan Ampel Surabaya carries the science concept model called "integrated twin tower '. This conceptualization of science integration is important because this integration model will be a miniature of the educational process undertaken.

The implementation of religious and science integration at the State Islamic University Maulana Malik Ibrahim Malang indeed has run well enough, as in the making of curriculum, integration -based syllabus and scientific writing written by college student and lecturer has already been related with turath Islami . A thing missed from attention is the lack of mapping and analysis to various scientific works done by college student and lecturer at UIN Malang. Therefore, this research aims for doing mapping and analysis to find typology from various writing and scientific research done by bachelor degree students of UIN Maulana Malik Ibrahim to gain character and to find how far the integration achievement in scientific works done by students in UIN Malang. Thus, this research attempts to explore the implementation of "tree science" model in student research of UIN Maulana Malik Ibrahim Malang as well as the developed model. This research limits the scope only in the thesis wtitten by bachelor degree in 2011-2016.

2 METHOD

In order to answer the problem formulation, the researcher uses library research. With this literature research, a research can use analytical descriptive method, i.e. data obtained in the form of words, images and behaviors that are not poured in the form of numbers or statistics, but still in the form of qualitative by giving the description of the situation studied in the form of a description narrative (Margono, 2000) For that, by using descriptive qualitative method it can more describe about a variable, symptoms or circumstances (Arikunto, 2000). In library research, library searching is more than just serving the functions mentioned for obtaining research data. Assertiveness of library research limits its activities to library materials only without the need for field research (Mestika , 2008).

To sharpen the analysis, the researcher uses content analysis techniques, where it emphasizes on scientific analysis of the message content of a communication (Moleong, 1990). Content analysis takes advantage of procedures that can derive the conclusion of a book or document (Muhadjir, 1992). The process of content analysis starts from the communication message, sorted out, then categorized between similar data, and then be analyzed critically and objectively (Bleicher, 1980).

3 FONDATION OF ANALYSIS

3.1 Review of Literature

3.1.1 Integration Timeline of Contemporary Islamic Thinkers

From historical aspect, the origin of integration has started from the first five century of the emerge of Islam (7th century until 11 AD) which at that time is not known about the separation between science and religion. Then on the end of the 11th century, the separation between science and religion emerged, which is well known as science dichotomy (Muttaqin, 2014). Science dichotomy is the results from the fight between intellectual people and the church which later separate or negate its linkage.

Science dichotomy has broaden its scope as secular teachings from west came to Islam world, so this factor made deep disintegration among Muslim people (Muttaqin, 2014) This disintegration made some contemporary Muslim scholars rethink about science and religion integration concept as has happened on early century of progressive Islam.

As result, several integration models were introduced by contemporary Muslim scientists on the 20th century. Various integration models could be understood correspond with social-cultural context of the model makers because of their respective endeavor. Among those models are (Bakar, 1994) IFIAS (International Federation of Institute of Advance Study) Model, ASASI (Academy of Islamic Science Malaysia) Model, Islamic Worldview Model (made by Alparslan), Bucailism Model, Integration Model based on Classic Philosophy (triggered by Sayyed Hosen Nasr), Sufism-based Integration Model (sparked by Muhammad Naquib Al-Attas), Fiqh-based Integration Model (Ismail Raji Faruqi), Ijmali Group Model (Ziauddin Sardar), and the Aligargh Group Model. Each of which has different characteristics one another (Cobb, 2017; Iqbal, ,2017; Masood, 2017).

3.1.2 Integration Models in Indonesia

In response to the integration models in the world, Indonesian scientists have also developed a concept or model of integration. The model of integration appears majority from a higher education institution, although there are some that emerged from a figure of observers of integration. Some models of integration of Islam and science include; Reintegration of Islamic Sciences (UIN Syarif Hidayatullah Jakarta) (Mulyono, 1994), Model of Integrated-Interconnected (UIN Sunan Kalijaga Yogyakarta) (Anshori and Zainal Abidin, 2014), Tree of Science (Pohon Ilmu) Model (UIN Maulana Malik Ibrahim Malang) (Taufiqurrochman, 2010), Wheel Model (UIN Sunan Gunung Jati) (Mulyono, 2011), Pine Tree Model (UIN Alaudin Makassar) (Arsyad, 2011) and Twin Tower Model (UIN Sunan Ampel Surabaya) (Muzakki, 2017). All the integration models proposed have the same goal of negating the dichotomy between the truth of revelation and the truth of science.

3.1.3 Tree of Science (Pohon Ilmu) Model (Integration Model of UIN Maulana Malik Ibrahim Malang)

In line with all UINs in Indonesia, UIN Maulana Malik Ibrahim Malang also seeks to eliminate the dichotomy between Islam and science, one of which is to develop an integrative curriculum depicted in the Tree of Science as a metaphor that explains that in a fertile, dense and shady tree it signifies that the tree has a very good development. A tree that has a strong root will make the rod stand firm. On the other hand, with a fertile environment, strong roots and strong stems will create good branches which in turn will have sweet, good and healthy fruits. (Taufiqurrahman, 2010).

The tree as mentioned above is an academic building metaphor. The land as a place for the growth of trees is the environment and culture that must be maintained, preserved and fertilized continuously (Taufiqurrahman, 2010). Because the tree will grow well if it lies on a good soil. Therefore, land and trees are two equally important components, for the purpose of science to be sought is for the welfare of mankind.

Mosque and Islamic dormitory (Ma'had) built inside UIN Maulana Malik Ibrahim Malang aim to create the power of culture in Islamic education through the habituation of spiritual values and morals to the entire academic community of UIN Maulana Malik Ibrahim Malang (Suprayogo, 2010). Because it is not enough to learn Islam just by reading the literature in the library or in the laboratory, but must be perfected with real application as implemented in Islamic dormitory.

Here is a tree of science metaphor that became the reference model of integration developed in UIN Maulana Malik Ibrahim Malang:
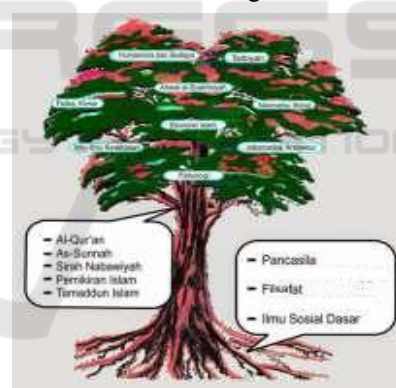

Figure 1: Metaphor of Science Tree

Tree that has strong roots is surely having sturdy stems that will continue to grow into branches, twigs and leafy leaves. The perfect blend and integration of roots, stems, branches, twigs and leaves will produce sweet fruit. So is an education, if a student has mastered the science well, then certainly he will also be able to study the science of religion with ease. Having enough religious knowledge can make every student in UIN Maulana Malik Ibrahim Malang ready to learn other sciences according to their level of needs. The Qur'an and Hadith are invested fundamentally to every human being so that UIN Maulana Malik Ibrahim Malang will produce intellectual and professional scientists

(Suprayogo, 2010) The metaphor of this tree of knowledge is the benchmark of indicators of integration of Islam and science in all aspects, including the aspect of writing scientific papers both among lecturers to students.

4 FINDINGS AND ANALYSIS

4.1 Integration Model of the Department of Religion

4.1.1 Amt Model (Asbab Nuzul, Munasabah Baina Suwar, Tafsir)

One of the many models that students use in the Department of Religion is the AMT Model. This model first tracks the cause of the existence (asbab nuzul) of a verse that becomes the object of the study. After the asbab nuzul was discovered, the researcher then described the munasabah baina suwar, which is an attempt to expose the relationship between surah examined by preceding and after the surah. Munasabah baina suwar looks quite shallow that highlighted only on a few opinions from the mufassir. There are three opinions of mufassir who became the reference in the study, namely Ibn Kathir, Al-Maraghy and tafsir Al-Misbah (Nurlitha, 2015).

Other studies using the AMT model also have similar characteristics, but there are interesting things that researchers find in some theses. One of which that attracted the researchers attention was the number of students who used the Indonesian interpretation references as the main objects in the analysis (Maulidi, 2016) on the value of Islamic leadership contained in the story of prophet Sulayman, surah an-naml 15- 19. The author mostly quotes Soenardjo as the main reference of the Surah An-Naml's interpretation. Other commentaries such as Al-Misbah and Ibn Kathir's commentary are only a list of supporting references, where there are only two or three opinions that was taken from the two interpretations above.

Another study on the value of Islamic education in Albaqarah Verses 30-39 (Islamiyah, 2015) also uses a similar model to some of the previous studies, but the interpretation is a verse-by-verse interpretation. The weakness in this study is also similar to previous research where the verse by verse interpretation uses the main reference of Al Aisar and An-Nur interpretation. The method of presenting the data is only limited to expose the opinions of mufassir contained in these two interpretations.

In this first model, the writers are essentially more inclined to the presentation of data based on the opinions of the mufassirs. The mentioning of asbab nuzul, and munasabah baina suwar are only a prelude in presenting the data.

4.1.2 AMTT Model (Asbab Nuzul, Munasabah baina Suwar, Tahlil Lafdzi, Tafsir)

Unlike the AMT model, this model seems to be more profound and is used by the majority of writers in religious majors. The depth of the AMTT model can be seen from the exploration of lafadz analysis of each of the surah which becomes the object of the study that is not found in the previous model. The AMTT model is the model that has the most in-depth coverage among other models in the religious department.

There are the same pattern of studying Islamic titles by making the Qur'an as the basis of reference (Nafisah, 2015; Sukaria, 2016; Mustofa, 2016). On the interaction of learning between students and teachers by reviewing al-Kahf verses 60-82, the author makes the interpretation of Al-Maraghi, Ibn 'Assyria, As-Showi, Al-'Uthaimin and some other interpretations as the main reference. There are also lafadz analysis in the verses that become the object of the study (Nafisah, 2015). Other researchers examine letters or verses in the Qur'an by exploring the views of the mufassir, the analysis of verses and lafadz and preceded by an explanation for the decline of verse and connection between letters before and after (Sukaria, 2016; Mustofa, 2016).

The second model in student's thesis analysis in the religious department has only a distinction in lafdz analysis. The rest has similarity to the first model such as connectivity between letters and Asbab Nuzu

4.1.3 Comparison Model of Mufassir's Opinion

Another model in addition to the above two models is a comparison model of two or more mufassir's opinion. This model is most widely used in the faculty of Sharia. For example, the study of word Idhrib in the Qur'an that expresses the definition of the word according to the mafassir of the salaf (Ibn Kathir), khalaf (al-maraghi) and contemporary (Al-Misbah and Al-Azhar).

In addition to Haris's writing above, Usamah Muhammad (2015) discusses the differences of thought between two mufassirs namely Sayyid Qutb and Quraish Shihab on the divorce problem. The

contents of this article is merely exploring the views of both of the verses of divorce, such as khulu ', tasrih and other. There is no other supporting data that takes the opinion of other mufassirs, because the focus of research on this paper is to refer the two opinions of the mufassir. Here the researchers present the picture in the article.

The models discussed above are the majority of the integration models applied in religious majors. One of the most visible weaknesses in the integration model undertaken by students in religious majors is the use of literature that the majority refers only to the Indonesian commentary. The lack in using the Arabic or English literature becomes one of the characteristics of student's thesis writing in this research. Other finding on the thesis in the religious department is the absence of Qur'an's verses or hadith in the title that has no connection with the study of the Qur'an or Al-Hadith.

4.2 Integration Model of Language Department

The integration model in the department of humanities is only a model namely; analysis of meaning contained in the Qur'an. Analysis of meaning here is the analysis of meaning that has relevance to the science of literature. For example, a study that examines the content in the Qur'an that contains the poem along with the wazan contained in the Surah Ash-shoffat. The wazan is analyzed in the forms that fit the theory in the science of balaghah (Fitriyah, 2016).

4.3 Integration Model of Social Departments

4.3.1 Qur'an Model as Legal Basis

Several studies in this social department have made the Qur'an as a legal basis such as, titles related to musharaka, mudhorobah, murobahah and others. The Qur'anic verses contained in the title as the author intend is a verse that becomes the foundation of the law / religious command regarding the suggestion to carry out economic activities according to Islamic Shari'a (Haris, 2014). Such titles are widely reviewed by undergraduate students in most majors within the faculty of economics. Not only limited in that faculty, one of the majors in the Faculty of Shari'a majoring in Business Law Syari'ah uses Qur'anic verses as legal reinforcement too.

The inclusion of the Qur'an as the foundation of the law does not necessarily deny the interpretation of the verse, but there are some studies which also include the opinions of the related commentators of the mufassir. The problem arises when the Qur'anic verse used in most of the studies in this department merely include the verse as the basis, not accompanied by exegesis

4.3.2 The Qur'an Model as a Reinforcing argument

The model of the Qur'an as an argument reinforcement is found in many of the theses in this social department. The absence of a patent integration method makes the students do not have a thorough study of the study of the Qur'an in the perspective of science. Of the total of sixteen theses in the social department, nine of them use Qur'an as the legal basis, and seven of them are just as argument reinforcement as the researchers have mentioned above.

4.4 Integration Model of Science Department

4.4.1 DKM Model (verse Detection, verse Classification, meaning verse as Concept)

This DKM model is a model specifically developed in the Department of Mathematics. This DKM model has a special step as in the thesis with the title "Classification of Qur'anic verses that Contain Mathematical Concepts" (Pendra, 2012). The steps are as follows:

a) Detect and search for Qur'anic verses containing mathematical concepts through 3 steps; using the Qur'an and its translations, the mathematics reference book and the Qur'an (the work of mathematics lecturer in UIN) and the software al-mu'jam al-mufahras li alfadzil qur'anil kariim.

b) Classify verses that contain mathematical concepts

c) Meaning the verse in a mathematical concept

This is a step that has been developed by the faculty and students in the mathematics department. The step is also widely found from the titles of thesis with the theme of the relationship between al-Qur'an and mathematics. Furthermore, the students or lecturers in this department develop other models as will be explained by researcher in the next section.

4.4.2 Inclusion of Verses and Tafseer Model

As the researchers have mentioned above that every thesis in the department of science is required to include verses related to the title of study. One of the models developed in several scientific studies since 2011-2016 is the model of the inclusion of verses and tafseer, but the inclusion of interpretations that researchers found is merely the inclusion of one, two to three opinions of mufassirs.

The researcher can conclude that, although this model includes commentary, but it is just a simple interpretation and not a deep one. For example, the authors of the thesis about insects collect some verses related to insects and a brief interpretation that explains it. Another example, thesis with the date's theme, then the authors collect verses related to dates along with some simple interpretation. The researcher will show examples of inclusion of verses and brief interpretations contained in the student's thesis.

The simple interpretation that the researcher intends is as illustrated by one of the above theses. The thesis writer tries to increase the opinions of the scholars of interpretation, but not the object of study. The inclusion of the Qur'anic verse as a mandatory point for all UIN students who study in science majors make the position of verses of the Qur'an not as an object of study, but impressed as a complementary element. That is the reality that researcher can find from the reading of some of the thesis that have been reviewed.

4.4.3 Inclusion of verse Model

There is one more integration model that the majority students use in science majors, namely the inclusion of verses related to the title. The inclusion of this verse is not accompanied by an interpretation at all, as if there is a compulsory study of the integration of the Qur'an and science only to pinpoint the related verse so as likely to be imposed. This is evidenced from some of the theses in the science departments, the integration studies have no correlation with the results or literature review. For example, the integration study is only included in Chapter IV, without being included in chapter II as a literature review so it cannot be correlated. This kind of study can be found in many of the students' writing theses in the science department.

5 CONCLUSION

Of the various integration models contained in the thesis of the department of religion, language, social and science, the researcher can formulate answers to the object of this study as follows:

In a certain level of thesis writing found in UIN Maulana Malik Malang, it has already shown the fruit of the science tree that became the integration model in UIN Malang. The lack of similarity in the pattern and the integration model in the writing of the thesis is already almost certain from the beginning. This is because the real science tree is not a pattern or model that offers instructions and practical steps for a research and thesis writing that can be followed by students. The tree of science is actually just a model in producing scholars who are expected to have integrative thinking skills. The science tree integration model works on the infrastructure and superstructure levels. In terms of infrastructure, the science tree of UIN Malang provides arkanul jamiah or university pillars that contains 9 university elements that are (1) Reliable Human Resources, (2) Mosque, (3) Dormitory, (4) Library, (5) Laboratory, (6) Study Room or Lecture, (7) Office as Service Center, (8) Center for Art and Sports Development and (9) Broad and Strong Funding Source.

The nine elements of the campus facility are then combined with a superstructure aspect that contains an integration-based curriculum in the classroom. The hope is to make education in UIN Malang by taking metaphor of science tree, it is expected that UIN Malang students and scholars become a polymath that can produce integrative thoughts and research results such as polymath figures in the Islamic world such as Jabir Ibn Hayyan (721-815) , Al-Khwarizmi (c 780-850), Al-Kindi (Alkindus) (801-873), Abū Rayhān al-Bīrūnī (973-1048, and Avicenna (980-1037) (Huff, 2017; Kaliri, 2017)

Such integration will, of course, be difficult to follow and standardize because the university is just like providing the material solely, and the process of how to integrate and interconnect is left to each individual to formulate themselves. It is not an impossibility to produce polymath scientists whose ideas will be integralistic, but as a model to be applied at the University, certainly the need to derive this great narrative "tree of knowledge" to be a practical and measurable practical step of action have to be realized immediately so that at least the students will get the most benefits maximally.

So far, from the existing models of AMT model, AMTT, comparison model of mufassir, meaning analysis, DKM model, Paragraph and Tafseer inclusion model, Paragraph Inclusion Model used by students in the writing of the thesis is still limited to interconnection. It is not yet seen as research project which is an in-depth dig that later deconstructs theories or scientific findings that have been established or confirm and add existing scientific findings

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