



Science Development Trends with the Metaphor of the Tree of Science State Islamic University of Maulana Malik Ibrahim Malang

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Abstract

This study aims to identify and analyze trends in science development using the metaphor of "Tree of Science" within Maulana Malik Ibrahim State Islamic University Malang (UIN Malang). This metaphor is used as a conceptual framework to understand the development of various disciplines at the university. This research uses content analysis methods against official documents, such as university development plans, curricula, and scientific publications related to academic programs.

The results showed that UIN Malang has adopted and developed the metaphor of "Tree of Science" as a strategic foundation in the development of science. There are three trends in the development of science at UIN Malang including: 1) using the integrative curriculum model of ma'had al-Jami'ah. 2) through the Arabic and English Language Development Program. 3) Through character education based on ulul albab.

Keywords: Model; Science; Tree Science

A. Introduction

One of the backgrounds of the establishment of a university is as a form of response to efforts to overcome the dichotomy of education (Kleemola et al., 2022), verbalistic attitude (Mzileni & Mkhize, 2019), and dogmatic as commonly found in madrasah and pesantren education (Muhyi et al., 2018). Dichotomous attitudes that privilege one field of science and antagonize or antagonize other fields of science will cause people's insight into science to become lame, narrow, and fragmentative,

confrontational, and counter-productive (Suprayogo, 2016). Furthermore, verbalistic attitudes or saying something that is limited only to the mouth, without knowing the sociological, historical and cultural context, cause verbalistic knowledge to be difficult to apply and lose its context (Aswir & Misbah, 2018).

Similarly, dogmatic attitudes that view science or the results of thought as a final thing, need not be questioned, cause the birth of dogmatic attitudes, or cling to a certain opinion or thought, even though the opinion or thought is no longer relevant (Kleemola et al., 2022). Meanwhile, Azyumardi Azra said that among the weaknesses of Islamic universities are weaknesses in foreign language skills, scientific mental attitudes, and hardware. Problem solving, among others, by structuring the organization, education system, curriculum and personal (Abudin Nata, 2019).

The development trend that UIN Maulana Malik Ibrahim Malang (UIN Malang) is now developing in science by realizing proper education and teaching and in order to meet the demands of the times is by integrating religion and science. In this case, UIN Malang has its own characteristics in the transformation of education with the metaphorical symbolization of the tree of knowledge or (Shajarah al-'ilm). This science tree is an actualization of the scientific integration paradigm offered and is now developing at UIN Malang. As the research of Joao M, Lavender and Alberto explained that in identifying several aspects that can bring progress to academic achievement and competence in an educational institution, an alternative catalog of academic trees can be used.(Joao et al., 2021). Also corroborated by the findings of Yasri et al's research on the way individuals perceive the relationship between science and religion shows accuracy to explain various aspects of teaching and learning in science.(Yasri et al., 2013) This shows that understanding the paradigm of scientific integration will affect a person's mindset and attitude in solving a problem.

The metaphor of the tree of knowledge used by UIN Malang as a scientific building is composed of roots, stems, leaf branches and fruits. The Qur'an Hadith, and the Prophet's sirah occupy part of the trunk of the tree of knowledge, The trunk of the tree as a support must be strong and sturdy, in this case it is understandable that to have a foundation in knowing the foundation of Islamic teachings (Qur'an and Hadith) should use several tools. The tools referred to by Imam Suprayogo here are Arabic and English, basic science on philosophy, natural sciences and social sciences. The scientific tools above occupy the roots of the tree, in addition to functioning as a buffer, tree roots play a role in absorbing nutrients and content in

the earth in order to become the forerunner of the growth of lush and shady trees bearing fresh fruit. Therefore, knowledge of tool sciences is mandatory for someone who wants to study integrative science (Alsina et al., 2019).

The scientific integration model proposed by Imam Suprayogo in designing the Education and teaching curriculum at UIN Malang departs from the conception of a dichotomy of science in which there is an influence from perspective to mindset if you put a religious scientific position based on the Qur'an with other scientific fields, should in scientific sources or foundations position it with the Qur'an and Hadith. Manakal al-Qur'an and hadith as the foundation of science are seen as a dichotomy of science that until now will never exist. However, the Qur'an and hadith have a general nature that requires the foundation of other scientific disciplines that are technical-practical in nature such as knowledge obtained from observation, experiment, research and logical thinking to find out the meaning in the Qur'an.

Some similar studies that review the building of scientific development in a higher education institution including, Joao M, Lavender and Alberto who discuss aspects that can bring progress to academic achievement and competence in an educational institution can use alternative catalogs of academic systems trees (Joao et al., 2021). Similar research from Yasri et al also discusses the way individuals perceive the relationship between science and religion, showing accuracy to explain various aspects of teaching and learning in science (Yasri et al., 2013). Furthermore, research findings from Mohammad Muslih explained that the development of science at UIN Malang has launched a new concept, namely "Justification of the Qur'an" which means that every scientific activity is intended to prove the "science of the Qur'an" (Muslih, 2016). The research findings of Joau Carlos et al also explain the openness of religion and science which can illustrate the existence of dialogue between both as a representation of "anti-scientific" attitudes so as to allow for a continuous discussion space in the context of educators' pedagogical activities (Paiva et al., 2022).

Broadly speaking, the research findings above describe the urgency, spirit and alternative development of science adopted at a university. UIN Malang has a foothold in the development of science with the metaphor of a shady and solid tree of knowledge. Therefore, this article will explain the trend of science development at UIN Malang through the consistency of the context of the scientific paradigm it develops, and also contributes as a critical analysis of the pattern of development of science typical of UIN Malang, especially in the perspective of Philosophy of Science. Many problems are crucial to be solved, such as the idea of "fighting forgetting", the

scientific paradigm that is built can only be determined its significance if it continues through new patterns in developing science such as academic traditions, research development patterns, to the form of a collection of works from the academic community. Meanwhile, religious science that continues to be developed must go hand in hand with the building of a scientific mindset with the minimization of having a critical mindset in order to realize scientific studies in the Islamic context.

B. Method

This research uses a literature review, this literature study method involves searching relevant literature with keywords such as "metaphor of the tree of science," "development of science," and "Maulana Malik Ibrahim State Islamic University of Malang" in various sources. After identifying the relevant literature, the next step is to analyze and synthesize findings from the literature, focusing on trends in science development with the metaphor of the science tree at Maulana Malik Ibrahim State Islamic University Malang. The final report includes conclusions about the main findings of this literature study related to trends in science development at Maulana Malik Ibrahim State Islamic University Malang.

C. Results and Discussion

1. Profile of the Initiator of the Science Tree UIN Malang

Imam Suprayogo was born on January 2, 1951. His education history began in elementary (SDN), junior high (SMPN) and high school (SMAN) education located in Trenggalek, the area where he was born. Alumnus of IAIN Malang, Faculty of Tarbiyah and Alumnus of the Doctoral Program in Social and Political Sciences, Universitas Airlangga (UNAIR) Surabaya. He is entrusted with the position of Assistant Dean of FKIP UMM, Dean of FISIP UMM, Assistant Rector for Academic Affairs UMM, Deputy Director of UMM Postgraduate Program, Vice Chairman of the East Java Private Higher Education Consultative Board, and beliau is a figure who appointed STAIN Malang to become UIN Malang, then he was also inaugurated as a Professor at UIN Malang.

Imam Suprayogo grew up in a religious family environment with Nahdlatul Ulama' (NU) traditions and cultures. His father was a preacher and administrator of the local NU and his mother was a Muslimat administrator in the local NU organization as well. Imam Suprayogo's parents are both engaged in the world of organization and Islamic da'wah. That is why his parents wanted him to become a

preacher. Because by preaching, it will be close to the community and responsive to social needs (Suprayogo, 2016).

Imam Suprayogo is a figure of modern Islamic education reform who is able to initiate changes in STAIN Malang to change UIN Malang with all determination, effort and hard work as well as the nature of istiqomah with the aim of more advanced Islamic education. In addition, he was also able to realize the idea of an integrative ma'had curriculum in an Islamic Higher Education institution. As the leader of UIN Malang, Imam Suprayogo is active in other activities such as writing which produces works including: Maintaining a Science Cage, Education with the Qur'an Paradigm, fostering the Integration of Science and Religion in UIN Malang, Kyai and Politics: Reading Kyai's Political Image, Changes in Islamic Higher Education: Reflections on Change, Islamic Spirit Towards Change and Progress, Paradigm of Scientific Development in Higher Education: Higher Education Concepts Developed by UIN Malang (Rusydi, 2020), (Suprayogo, 2016). He has won MURI record for consistency in working on the blog for three years without stopping every day (since June 16, 2008 - June 15, 2011). And other works that he wrote to this day. In addition to diligently writing, Imam Suprayogo is a figure who is rich in educational renewal ideas, one of the products of his thoughts is the Shady and Sturdy Metaphor of the Tree of Science, as a *blue print* or science building at UIN Malang. One of the fundamental things behind the emergence of this tree of knowledge is the dichotomous conception of religion and science. So there needs to be a new face offered in order to answer problems related to scientific dichotomization.

2. Science Tree as a Symbol of Science Development at UIN Malang

The metaphor of the tree of knowledge is a symbolization used by Imam suprayogo in explaining his ideas and thoughts related to the educational curriculum clearly and easily understood. This is expected to be accepted by all academic audiences and well realized. Here is a picture of the tree of science,

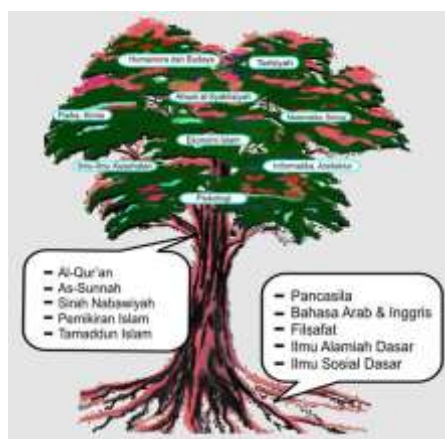


Figure 1. Science Tree UIN Malang

The metaphor of a large, shady and strong tree, whose roots sink into the earth, its trunk is strong, branches and branches and leaves are lush so that the tree can bear healthy and fresh fruit. In the metaphor of this tree of knowledge is divided into several main parts including: The first part is Strong roots stuck into the earth illustrate the abilities that students must have in carrying out Islamic studies based on the Qur'an and al-Hadith, namely foreign language skills including Arabic and English, logic or manteg, natural sciences and social sciences and the ability to understand the meaning and values reflected in Pancasila. The above sciences can be referred to as tool science, thus ideally these abilities are mastered thoroughly before students begin to carry out Islamic studies based on the Qur'an and al-Hadith (Suprayogo, 2016).

The second part is the Trunk, the trunk of a tree serves as an analogy of the object of Islamic study, namely 1) the Qur'an and al-Sunnah, 2) the Prophet's Sirah and the History of Islamic Civilization, 3) Islamic thought is composed of; Theology, Fiqh, and Sufism, 4) Understanding in Muslims. All UIN Malang students are required to take and master the fields of knowledge that are in the trunk in the metaphor of this tree of knowledge, including: Qur'anic Hadith Studies, Prophet's Sirah, History and others whose scope is wider and more comprehensive. So that later students who come from study programs focused on non-religious majors can receive messages implied from the Qur'an whose position as a source of knowledge. Vice versa, students from religious study programs can also capture educational updates derived from the results of experiments, observations and research.

The third part is a branch with a large number of branches and leaves in this metaphor serves to illustrate the scientific branch that can be taken by students who will study at UIN Malang. Students are provided with branches of science or faculties

with many choices of majors and study programs, they are given the opportunity to freely determine the study program or branch of science to be pursued according to their respective interests, talents and skills (Suprayogo, 2016).

The fourth part is the fruit of the tree which is used to describe the estuary and the success of mature and sufficient scientific religious study activities, namely faith, charity sholeh and akhlakul karimah. Discussing this metaphor, the big tree illustrates the existence of the trunk of science. Stems can certainly grow only in fertile, but dense soil. If the stem is intended to illustrate the development of academic aspects. Described as loose but dense soil can be used to build its culture. Scientific or academic that goes hand in hand with the culture developed, moreover, Islamic studies will not get the desired intensity. Similar to various other universities whose academic development process takes place with the running of professional aspects. In the sociological view, Islamic university scholars, if later returned side by side with society, will be seen as having more abilities in the field of leadership, especially socio-religious. This ability can be obtained from various activities that take place at his college. Various skills, abilities to abilities that are expected to be realized through the habituation process applied in the daily lives of students are referred to as cultural forces (Suprayogo, 2016).

The development of science through the metaphor of the tree of knowledge at UIN Malang also experienced a debate at the epistemological level. According to Muhaimin quoted by Husniyatus, the main foundation of science comes from Allah. Allah who is the creator of the universe (kawniyyah verses) and the Qur'an and Hadith (qawliyyah verses). Thus the foundation is interrelated and does not differ in the meaning of a truth. Those who think on both the left and right are called dichotomies (Salamah Zainiyati, 2014). The meeting of new problems in life in the academic environment, should refer to the basic foundation of the Qur'an and al-Sunnah. As the design of cosmological educational material (kawniyyah) should be explored from the Qur'an as a foundation of science that has no limits with the aim of success, the theory used is valid and can be applied in educational institutions (Fuad, 2015).

When referring to the paradigm of integration of Islamic thought, Imam Suprayogo the nature of religion as the foundation of science and making al-Hadith as the foundation for the development of science derived from the qauliyah verses and making the results of research and observation as the basis of the Kauniyah verses. Therefore, sources and al-hadith can be used as the basis for other branches of knowledge.

1. Science Development Model with Science Tree Metaphor at UIN Malang

UIN Malang is one of the Islamic Religious Universities (PTKI) that underwent a rapid transformation process (Raya, 2020). Thus, it is not surprising that UIN Malang is able to bring the academic community and graduates into a quality and superior generation. In order to maintain and improve the quality of graduates, the development of science at UIN Malang must be able to develop following the needs of the times. The Integrative Curriculum developed at UIN Malang illustrates the synthesis between the pesantren/ma'had curriculum and the university. The following are some educational activities that illustrate the development of scientific traditions of UIN Malang:

3. Integrative Curriculum of Ma'had Sunan Ampel Al-'Aly (MSAA)

Ma'had Sunan Ampel Al-'Aly (MSAA) is a product of ideas that have long existed since the establishment of the Faculty of Tarbiyah IAIN Sunan Ampel, but its realization was only realized when Imam Suprayogo served as chairman in 1997. Because of the transformation of IAIN to STAIN. There are 3 foundations that became the background for the establishment of MSAA, including, *first*, the Theological Foundation, students are a respected and commendable community as explained in Q.S Al Mujis verse 11. Students are cadres of scholars and scholars' as explained in Q.S At-Tawbah verse 112, and students are the movers of society leading to perfect human understanding as contained in Q.S Al-Imron verse 191.

Second, the Normative Foundation in the form of (1) Law No. 20 of 2003 concerning the National Education System, (2) Presidential Decree of the Republic of Indonesia No. 50 of 2004 concerning the change of STAIN Malang to UIN Malang (requiring New Students without exception to live in Ma'had). (3). Regulation of the Minister of Religious Affairs of the Republic of Indonesia No. 5 of 2005 concerning the Statute of UIN Malang. (4). Decree of the Minister of Religious Affairs No. 137 of 2008 concerning the Statute of UIN Maulana Malik Ibrahim Malang. (5). Vision and Mission of UIN Maulana Malik Ibrahim Malang, which is composed of four pillars, namely; Spiritual intensity, Honorable Morals, Broad knowledge, and Professional Maturity.

Third Historical Foundation, PTAIN was established as a Post-Pesantren Higher Education institution. Mukti Ali (former Minister of Religious Affairs) said,

what makes the figure of Imam Suprayogo anxious is that the figure of the ulama' is always born from pesantren not educational institutions. This statement pioneered and motivated Imam Suprayogo to solve the problems of the people through the establishment of Ma'had. (Muzakki, 2020). If we look at the foundation of the establishment of MSAA, it can be drawn that students are assets of educational renewal, they are referred to as agents of scholars and future scientists and community mobilizers, so they should have a solid scientific foundation. Ma'had had a great role in equipping and preparing a generation of 'ulama' who were highly intellectual and intellectuals whose attitudes reflected those of scholars. This is certainly supported by careful planning in terms of the learning and teaching curriculum, human resources, and supporting infrastructure in it.

There are four pillars in the vision and mission of UIN Malang including, spiritual intensity, moral honor, broad knowledge, and professional maturity. The scientific philosophy on this campus is represented by collaborating the culture of pesantren and universities, thus MSAA develops to uphold two pillars, namely spiritual depth and moral majesty. But in addition to these two pillars will be developed on the authority of the University or Faculty. Then the scientific mapping model can be known in the figure as follows.



Figure 2. Integrative ma'had and university curriculum model

The model of integration of higher education and ma'had above represents a pattern of cooperation between universities and ma'had in producing a good generation of graduates. This is in harmony with the metaphor of the tree of knowledge on the trunk (Qur'anic Studies, Hadith, Sirah Nabwiyah, Islamic insights and Islamic Tamddun). In this section, MSAA takes its role as a forum for the development of basic science with activity programs in it such as; *Shobahul Lughah* activities are structured Arabic and English learning which is mapped with a *placement test* at the beginning to determine the calcification or level of ability of students (*asasiy, mutawasith, aly*). Ta'lim ma'hadi activities such as; Ta'lim Afkar, Ta'lim Qur'an and other religious halqahs. The ta'lim ma'hadi curriculum is designed

to obtain buildings related to ma'had science and universities that can train the mindset of students who are integrative and not too inclined to Islamic knowledge alone or inclined to science alone, but able to bring together the common thread of urgency and the role of both in developing science. Ta'lim ma'hadi is essentially intended to strengthen the deep spiritual and moral majesty that is characteristic of pesantren traditions, especially MSAA in supporting the vision and mission of UIN Malang.

If referring to the educational guidebook used by UIN Malang in 2022, the University Basic Courses that must be passed by all UIN Malang students include a) Civic Education; b) Indonesian; c) English; d) Basic Natural Sciences; e) Basic Cultural Sciences; f) Philosophy of Science; g) Qur'anic studies; h) Studies of al-Hadith; i) Fiqh Studies; j) Morals/Sufism; k) History of Islamic Civilization; l) Islamic theology; m) Maharat al-Istima' I, II; n) Maharat al-Kalam I, II; o) Maharat al-Qiraah I, II; p) Maharat al-Kitabah I, II; q) Tarbiyah Ulul Albab (Malang, 2022).

Ma'had learning at UIN Malang is realized with one of the objectives to achieve development in university courses. Thus, the curriculum structure of the basic university courses of UIN Malang is combined with learning at MSAA, the ta'lim ma'hadi graduation certificate is used as a prerequisite for choosing an Islamic study program, and the main requirements before the implementation of the comprehensive exam. These requirements bind students who have not graduated with the obligation to take part in the remedial ta'lim ma'hadi program until they are declared graduated.

If you look at the reality of education and teaching management in MSAA until now, functionally it can be known in four aspects, namely; preparation, organization, implementation and supervision. The planning aspect contains provisions and the search for formulations to achieve the goals that are the targets of the ma'had within the decided period. In this case, MSAA has a vision and mission that becomes: Breakdown from the vision and mission of UIN Malang which is specific towards the function of the ma'had itself. The second aspect, organization, is the distribution of tasks to students as a whole who are involved in the management structure and who are involved in activities in Ma'had in sync with their abilities. The principles applied are: the right man in the right place, making the task will be carried out professionally. The third aspect, Implementation, In the process of realizing each existing program, Ma'had management is composed of 3 levels based on the authority established. The level of management level can determine the work area of each management in realizing tasks in Ma'had. The

fourth aspect is controlling, the essence of controlling is the process of ensuring the running of the program so that it can be in accordance with the preparations that have been formulated (Muzakki, 2020)

MSSA curriculum management reflects its important role in carrying out the mandate as a spiritual developer and the moral majesty of students. However, at the practical level, it certainly needs to be reviewed because there are many problems encountered during the process of classifying students at MSAA, one of which is the difficulty of some students who *are* actually from public schools to participate in religious activities diligently, often students who violate the provisions in the ma'had environment. Of course, these obstacles are accompanied by various reasons. However, so far Ma'had has tried to formulate the right formulation and apply the right model in helping the education and teaching process of UIN Malang to achieve the goals to be achieved.

4. Language Development Program UIN Malang

The Language Development Center at UIN Malang was pioneered with the establishment of the Arabic Language Development Special Program (PKPBA) in 1997 which has now changed to the Arabic Language Development Program (PPBA), and the English Language Development Special Program (PKPBI) in 2000 which has now changed to the English Language Development Program (PPBI). The establishment of PPBA and PPBI was based on concern for the low Arabic and English skills of students in the PTKI environment. This is certainly a challenge for UIN Malang which will flap its wings as a *Bilingual University*. In addition, mastery of Arabic and English is a crucial thing that is required to be mastered by all students of UIN Maulana Malik Ibrahim Malang in order to realize scholars who are 'intellectuals and intellectuals who have a clerical spirit'.

In line with the vision of the Language Development Center (PPB) UIN Malang, namely "To become the leading language development center in carrying out education, training, translation, research, and community service". The mission of PPB UIN Malang is described as follows.

- a. Realizing foreign language learning for the academic community of UIN Malang and the general public.
- b. Providing foreign language counseling to the academic community of UIN Malang and the general public.

- c. Providing foreign language testing and translation services to the academic community of UIN Malang and the general public.
- d. Carry out research and community service in the field of foreign language learning.
- e. Realizing Indonesian learning aimed at foreign students within UIN Malang and the general public

The development of information and technology at UIN Malang makes this campus attractive to foreign students until the education of other language units in 2016 including the Indonesian for Foreign Speakers (BIPA), and the Chinese Language and Culture Center (CLCC). Therefore, PPB UIN Malang handles learning four languages namely Arabic, English, Indonesian for Foreign Speakers and Mandarin.

UIN Malang provides teaching facilities and foreign language education, especially Arabic and English in the first year of student study. These facilities are called PPBA and PPBI. PPBA and PPBI are programs formulated for new students from all majors at UIN Malang, the implementation process is not much different from the "*Shobahul lughah*" program which is carried out every morning at MSAA, it's just that PPBA and PPBI are calculated in the Semester Credit System (SKS). The calculation system of the ability level of students is carried out through a *placement test* at the beginning before the implementation of the program, from the results of *the placement test* can provide an overview of the placement of PPBA classes from the basic (basasi), medium (mutawasit) and high ('Aly) ability levels. PPBA is implemented in the first semester, while PPBI is implemented in the second semester. PPBA and PPBI UIN Malang indirectly represent how important mastery of foreign languages is for academics who will study science and religion. Because it is undeniable that the literature on Islam and science is mostly in Arabic and English. If associated with the metaphor of the tree of knowledge, Arabic and English occupy the root, where the root philosophy is an important indicator whose duty is to absorb all forms of good content and substances in the bowels of the earth, and act as a support and determinant of whether or not a tree is sturdy, therefore Arabic and English proficiency is an important tool for finding information about science and Islam. Therefore, the placement of PPBA and PPBI when students live in MSAA is the right policy in fulfilling the capacity and ability of students before reviewing the disciplines they focus on.

5. Intergation Ulul Albab-Based Science

The Quran defines ulul albab with various versions in its use, including: First, people who have a broad mindset. Second, people who have deep feelings, third, people who have strong and sharp intellect, fourth, people who have broad insight, fifth, people who have accurate understanding, sixth, people who have careful wisdom and transparency (Anam & Bakr, 2021). According to Imam Suprayogo, Ulul Albab is a person who prioritizes remembrance, thought, and charity shaleh. A man of great insight, keen eyesight, cleverness of the brain, a soft heart, and enthusiasm and a warrior spirit (striving in the way of Allah) earnestly (Suprayogo, 2016). So according to the author, the conclusion obtained by ulul albab means a person who is critical, has a sensitive heart, has high intelligence, understanding and wisdom.

The integration of ulul albab-based knowledge is based on the characteristics that exist in the person of ulul albab contained in the Qur'an and distributed in 16 verses of the Qur'an as in the Tarbiyah Ulul Albab course manual. These verses are (1) QS. Al-Baqarah; 179, (2) QS. Al-Baqarah 197, (3) QS. Al-Baqarah 269, (4) Qs. Ali Imran: 7, (5) Qs. Ali Imran; 190, (6) al-Maidah: 100; (7) Yusuf: 111, (8) al-Ra'd: 19, (9) Abraham: 52; (10) Shad: 29, (11) Shad 43; (12) al-Zumar: 9, (13) al-Zumar: 18, (14) al-Zumar: 21; (15) al-Mu'min: 54, and (16) al-Thalaq: 10. The great meaning contained in it describes the perfect person as in Sura Ali Imran 190-191. The verse describes the story of having ulul albab is a person who habituates dhikr in various circumstances (religious), and habituates to pay attention to God's creation both in the sky and on earth (intelligent) (Walid, 2011).

Imam Suprayogo also said that ulul albab education shapes the human person to be the best than before, physically and mentally healthy. The manifestation of this goodness is to do good to fellow human beings, *khair an-nas anfa'uhum li an-nas*. Healthy humans are certainly able to think to avoid all diseases related to physical and spiritual. When a person is affected by a physical illness it can be felt by the senses but spiritual illness is often unknown. Among the forms of spiritual illness are: spitefulness, envy, bragging (takabbur), kufr favor, hatred, stubbornness, individualistic, intolerance and others (Walid, 2011).

Thus, based on the nature of ulul albab above, UIN Malang students are led to have the following characteristics: 1) Religious (steadfast, sincere, tawakkal, tawadlu', consistency, surrender, fair, honest, soft-hearted). 2) Have high fighting spirit/hard work. 3) Creative and Critical (initiative to ask). 4) be insightful. 5) be able to know and handle natural and social facts appropriately (intelligently). 6)

Caring for others/Empathy. 7) Tolerance. 8) Cooperation. 9) experienced (willing to act well and best)/*excellence*.

UIN Maliki Malang developed the nine characters by simplifying and convention into several sentences, namely (1) having a high fighting spirit because Allah is a form of charity sholeh (Jihad); (2) keen observation, initiative to ask questions (Creative, innovative and Critism); (3) have a soft heart (Religious); (4) Capable of wanting to do good and best / broad-minded / excellence; (5) able to see/read natural and social phenomena carefully (Smart). Based on this, UIN Maliki Malang continues to develop character values, namely Excellence, Critical, Smart, Religious, and Jihad (J-CRES). The personal success of ulul albab depends on the strengthening of these five characters. Thus, students who have these characteristics are intended to strengthen creed and spiritual intensity, moral majesty, broad insight and professional attitude (Walid, 2011)

6. Critical Reading of Science Development Model at UIN Malang

Talking about the development of science is a long process that takes a lot of time. The development of science also has its own phases, stages and characteristics in accordance with the demands of the era. The characteristics of science itself cannot be separated from the social and cultural changes that exist in society (Syukri & Rizki, 2021). UIN Malang carries a science development model with various interesting teaching programs and is used as a means or media in realizing universities that can produce superior clerical cadres. Thus, this is in line with the transformation style carried out in several developing universities that prioritize scientific integration programs (Bourke, 2018),(Fernandes & Flores, 2022). The following is a critical reflection on the model of science development at UIN Malang.

First, to realize scientific building with the metaphor of the tree of knowledge, the UIN Malang curriculum is integrated with MSAA. UIN Malang requires new students to live in ma'had in order to master disciplines that are at the root of the metaphor of the tree of knowledge. Philosophically, curriculum development at MSAA is based on Pancasila values. The culture and teaching system applied actually invites students to follow all orders and stay away from His prohibitions. Sausageologically, the curriculum developed by MSAA is based on the socio-religious conditions and needs of the community. The principles used by MSAA in developing the curriculum are the principle of effectiveness, the principle of relevance, the principle of continuity and the principle of flexibility. These

principles are used as a basis in determining the direction of teaching and student activities at MSAA.

The implementation of science development with systematic teaching curriculum policies will have a good impact on the progress of MSAA. But the resources that run are no less important in the implementation process. Because at the practical level, this is certainly not an easy thing, there needs to be strong support from human resources in the university environment and the ma'had environment. In realizing synergy between human resources, they must dare to make small reflections on each program that is planned systematically. Because a pattern of interaction can be formed well through cooperative activities carried out (Wahyudi & Kurniasih, 2020).

Second, as article 69 in the 2022 UIN Malang education guidebook, regarding the implementation of Arabic language development which must be followed by students while living in Ma'had for two semesters (semesters I and II, and English language development as an advanced foundation that must be carried out by students in semesters III and IV. This is in line with the role of ma'had in article 68 in the 2022 UIN Malang education guidebook, that the realization of Ma'had al-Jamiah is intended to produce a generation with deep spiritual character, moral majesty, moderate religious attitude, and the creation of a linguistic environment (Malang, 2022). As Husniyatus expressed in Karel A. Steenbrink about mastery of Arabic is as important as mastery of Religion (Salamah Zainiyati, 2014). If viewed in terms of objectives, the mastery of foreign languages intended by UIN Malang is as a tool that students will use before studying Islamic sciences and science. As Imam Suprayogo stated, a person will find it difficult to study Islam and science if he does not have the ability to master foreign languages, because language is the first tool that must be possessed by someone who will study Islamic science and science (Anam & Bakr, 2021).

Third, Ulul Albab plays a crucial role as social control with the aim of strengthening faith so that a person is not easily shaken in the face of science and technology that continues to develop. To make religious science and science can be well interrelated. If examined historically, science and technology developed with the aim of being a suggestion to get closer to God in the hope that religious science and technology synergize to contain spiritual values.

The concretization of Tarbiyah Ulul Albab at UIN Malang is shown by the cooperation and synergy of the ma'had curriculum with universities. Because the existence of Ma'had 'Aly is known to be the place where Islamic religious education

centers are initiated that succeed in forming people who prioritize dhikr, as well as universities that shape the human person by prioritizing their thinking. Until being able to form a person who is charitable shaleh. So it can be understood if ulul albab-based scientific integration is not only realized for students, but also standardized for the entire academic community of UIN Malang, as follows: Maintenance of Qur'an studies for lecturers with programs at LKQS and assistance in reading the Qur'an for workers with the Tahsin al-Qur'an program and guidance on memorization of the Qur'an students at Haiah Tahfidzil Qur'an (HTQ). This shows that synergy between models of scientific development must dialogue and greet each other so as to fade dichotomous discourse and implementation

D. Conclusion

Based on a literature study on Science Development Trends with the Metaphor of the Tree of Science at Maulana Malik Ibrahim State Islamic University Malang, it can be concluded that there are three main trends in the development of science at UIN Malang. First, the use of the integrative curriculum model of ma'had al-Jami'ah that demonstrates a holistic approach in education, integrates various disciplines, and promotes deep understanding. Second, through the Arabic and English Language Development Program which shows efforts to improve language skills, open access to global scientific literature, and facilitate international communication. Third, the development of science is also carried out through ulul albab-based character education, which emphasizes the formation of strong Islamic character. These three trends reflect UIN Malang's commitment in developing science with an inclusive, globally-oriented, and rooted in Islamic values.

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