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**Integration of Religion and Science in the Implementation of the  
Madrasah Science Competition (KSM)**

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**Abstract**

Until now, there is still a strong opinion in the wider community that "religion" and "science" are two entities that cannot be reconciled. Both have their own territory, separate from each other, both in terms of material-formal objects, methods, criteria for truth, the role played by scientists as well as their theoretical status and even the organizing institutions. To find out how students' abilities can be seen from learning outcomes through written and oral forms. Then to find the best ability that can be proven through a competency. KSM (Madrasah Science Competition) is a forum for screening students who excel in academics at various levels of school level (SD, Madrasah or equivalent to SMP and SMA). This program is a competition in the field of science organized by the Ministry of Religion of the Republic of Indonesia. In general, this KSM activity will foster enthusiasm to develop academic abilities in the field of science, but in 2018, all the material tested in it is integrated with religious science. The aims of this research are: (1) To reveal the concept of integration of student achievement science in the Madrasah Science Competition (KSM) in Binjai City. (2) To find out the contribution of madrasahs in increasing the integration of students' knowledge in the Madrasah Science Competition (KSM) Olympiad activities. This study uses qualitative research (qualitative research) with the type of descriptive research. The data collection uses interview, observation, and documentation methods. Data analysis was carried out while in the field along with looking for research until it was described, analyzed and then drawn conclusions. Data analysis techniques can also be called the process of simplifying the data into a form that is easier to read and interpret, the data analysis techniques used in this study are data reduction analysis techniques, data presentation, and conclusions. The results of this study indicate that: (1) the success of KSM in increasing the integration of knowledge. (2) The contribution of KSM in increasing the integration of knowledge is (a) periodic evaluation, (c) discipline in implementing guidance. (3) The impact obtained by madrasahs when students are able to return to madrasahs with good news, namely (a) improving the quality of education, (b) madrasahs getting a level of popularity.

**Keyword: Integration of Science, Madrasah Science Competence.**

**Integrasi Ilmu Agama dan Sains dalam Pelaksanaan Kompetisi  
Sains Madrasah (KSM)**

**Abstrak**

Hingga saat ini masih kuat anggapan di masyarakat luas yang mengatakan bahwa "agama" dan "ilmu" adalah dua entitas yang tidak dapat didamaikan. Keduanya memiliki wilayahnya masing-masing, terpisah satu sama lain, baik dari segi material-objek formal, metode penelitian, kriteria kebenaran, peran yang dimainkan oleh para ilmuwan maupun status teoritisnya bahkan hingga institusi penyelenggaranya. Untuk mengetahui bagaimana kemampuan siswa dibidang keilmuan dapat dilihat dari hasil belajar melalui bentuk tulisan maupun lisan. Kemudian untuk mencari kemampuan yang terbaik dapat dibuktikan melalui suatu kompetensi. KSM (Kompetisi Sains Madrasah) merupakan salah satu wadah penjangkaran siswa/siswi berprestasi bidang



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akademik di berbagai tingkat jenjang sekolah (SD, Madrasah atau setara SMP dan SMA). Program ini merupakan ajang kompetisi dalam bidang sains yang diselenggarakan oleh Kementerian Agama Republik Indonesia. Secara umum diselenggarakannya kegiatan KSM ini akan menumbuh kembangkan semangat berkompetisi yang berorientasi pada kemampuan akademik dibidang sains, namun pada tahun 2018, semua materi yang diujikan di dalamnya terintegrasi dengan ilmu pengetahuan agama. Tujuan dari penelitian ini adalah: (1) Untuk mengungkapkan konsep integrasi ilmu prestasi peserta didik pada Kompetisi Sains Madrasah (KSM) di Kota Binjai. (2) Untuk mengetahui kontribusi madrasah dalam meningkatkan integrasi ilmu peserta didik pada kegiatan olimpiade Kompetisi Sains Madrasah (KSM). Penelitian ini menggunakan jenis penelitian kualitatif (qualitative research) dengan jenis penelitian deskriptif. Adapun pengumpulan datanya menggunakan metode wawancara, observasi, dan dokumentasi. Analisis data yang dilakukan ketika berada di lapangan bersamaan dengan dilakukannya penelitian hingga kemudian dideskripsikan, dianalisa kemudian diambil kesimpulan. Teknik analisis data juga bisa disebut dengan proses penyederhanaan data-data kedalam bentuk yang lebih mudah dibaca dan diinterpretasikan, teknik analisis data yang dipakai pada penelitian ini adalah teknik analisis reduksi data, penyajian data, dan kesimpulan. Hasil penelitian ini mnunjukkan bahwa: (1) keberhasilan KSM dalam meningkatkan Integrasi ilmu. (2) Kontribusi KSM dalam meningkatkan integrasi ilmu adalah (a) adanya evaluasi secara berkala, (c) disiplin melaksanakan bimbingan. (3) Dampak yang diperoleh madrasah ketika anak didik mampu kembali ke madrasah dengan membawa kabar bahagia, yaitu (a) peningkatan mutu pendidikan, (b) madrasah mendapatkan tingkat popularitas.

**Kata Kunci: Integrasi Imu, Kompetensi Sains Madrasah.**

## **PRELIMINARY**

The Madrasah Science Competition (KSM) is a competition event in the field of science organized by the Ministry of Religion of the Republic of Indonesia. The Madrasah Science Competition was held from 2012 to 2017 carried out conventionally and the technology-based Madrasah Science Competition has started from 2018 until now. The administrative registration and selection process to the implementation of the test utilizes Information Technology to increase accountability and transparency in the implementation of the competition. The 2022 Madrasah Science Competition is opened for Education Units from Madrasahs (MI, MTs, MA) or from schools (SD/SMP/SMA Equivalent).

Competence moves awareness of the importance of an integration of knowledge that will raise the spirit to compete towards a brilliant world civilization. The process of scientific competence is of course to find students' scientific talents in a field of science. This of course can not be separated from the name of an education.

Education is an effort to make someone from those who don't know to know, those who can't become able and those who are not good to be good. According to Abdurrahman (2013: 1) Education is one of the most valuable investments in life. It becomes a parameter or measure for the progress of a nation. Madrasahs as Islamic religious-based educational institutions should be used as pioneers in the national education model.

In the scientific integration project, science and religion and *al-turats wa al-tajdid* are terms that always attract attention among the intellectuals of the integration activists. Entering the 3rd millennium and the era of globalization, these words are increasingly prominent and get the spotlight and are studied in depth in various seminars and academic forums. Discourse on epistemological issues of "religious science" and "general science", the widespread thinking about the need for the transformation of Islamic Higher Education (IAIN/STAIN) into a State Islamic University (UIN) or with a wider mandate, and the need to review the field of Islamic sciences. (M. Amin Abdullah, 2003:7)

The process of maintaining the integration of knowledge will certainly succeed if the values of religion and science have been instilled since childhood. And it is more possible if institutions implement such things early on. According to Amirul Bakhri (2015: 70) Islamic educational institutions have real problems as well as problems faced in general education in Indonesia. Some of these problems, according to Zainudin Sardar, are: limited facilities and infrastructure to support educational activities, the quality of madrasa teachers is still concerning, especially their professionalism, the welfare of madrasa teachers is still low, madrasa student achievement is still low, equal distribution of educational opportunities, especially in madrasahs that have poor quality, the relevance of education to needs is still low, and the cost of education.

In essence, students are required to conduct healthy competition through a competition to find out who is the best among them and make their enthusiasm to compete in prestigious activities. Then in this case the researcher wants to find out the concept of implementing the integration of student achievement science at the Madrasah Science Competition (KSM) in Binjai City. As well as to find out the contribution of madrasahs in increasing the integration of students' knowledge in the Madrasah Science Competition (KSM) Olympiad activities.

## **RESEARCH METHODS**

The author wants to describe a picture of a concept, condition, or phenomenon that actually occurs in his research. The research approach used by the author as a research tool is in the form of qualitative research (qualitative research). According to Jan Joker, qualitative research is research in which researchers make an effort to understand a particular organizational reality and phenomena that occur from the perspective of all parties involved (Jan Joker, 2011:71). Meanwhile, according to Moleong qualitative research is a research procedure that produces descriptive data in the form of written or spoken words from people who can be observed (Lexy, 2002:6)

## **RESULTS AND DISCUSSION**

### **History of the Scientific Dichotomy in Indonesia**

According to Steenbrink, since the eighteenth century, the Dutch colonial government had realized the importance of the role and existence of religious schools as places of education for indigenous children. It was proved that in 1819 the Governor General Van der Capellen had ordered his officers to conduct research on the education of the Javanese people, with the aim of improving reading and writing skills. From this research, it is reported that there is an Islamic religious education (Islamic Religion College) using Arabic (Karel A. Steenbrink, 1994:1-2). At the end of the eighteenth century, according to Karel Steenbrink several times it was proposed that existing Islamic educational institutions be used at discretion to develop a "general" education system. However, in the reorganization and development of the colonial education system, in reality the Dutch colonial government always chose another way than adapting to Islamic education. J.A. Van der Chijs, the first Colonial Education Inspector in Indonesia and several of his assistants considered the didactic tradition of Islamic education too bad.<sup>12</sup> In line with Van der Chijs' assessment, the Colonial Minister refused to provide subsidies to Islamic schools on the grounds that the Governor General did not want to sacrifice state finances. for these schools which in the end only succeeded in developing an education system that did not actually benefit the influence and authority of the colonial government.<sup>13</sup> Based on these considerations, the so-called village schools were established, a simple educational institution that provided a path towards the realization of "general" education. Among the village schools there are those from the zending school, while the proposal to incorporate Islamic education is always rejected. This attitude according to Karel A. Steenbrink "is an anti-Islam effort by the Dutch". Because of that, Islamic schools, then took their own path, separated from the governor.

So the historical roots of the dualism above were purely for discriminatory political reasons by the Dutch colonial government, not the will of the Muslims at that time, so that after independence-pundualism inherited by the colonial government, it still takes root in our education in Indonesia today. The views of some officials who handle the education sector who do not respect Islamic schools have encouraged some of the leaders and managers of these schools to hold on to their original attitude: Standing at a different pole from "public" schools (M. Nafiur Rofiq, 2019: 5-6) .

### **Definition of Knowledge Integration**

In the Big Indonesian Dictionary (KBBI) "integration" is defined as assimilation to

become a unified and unified whole (KBBI, 1989:335). The word "unity" implies that various elements that are different from each other undergo a process of assimilation. If the update has reached an association, then the phenomenon of this change is called integration.

Integration of Science is a real integration between religious values (in this case Islam) with General Science or Science. If studied carefully, actually science in this world can be classified into three groups, namely natural sciences (natural sciences), social sciences (social sciences), and humanities (humanities). The three types of science (natural sciences, social sciences and humanities) apply universally, everywhere. It's just that, among Muslims, they formulate their own knowledge based on the Qur'an and Hadith (Iman Suprayano, 2006: 5).

When we hear the words "science" and "religion, people will immediately think of the history of the exciting relationship between the two. In historical records, the encounter between religion and science is not only a mere contradiction, but also people try to find the relationship between the two in the position of science. does not direct religion to the path it wants and religion also does not force science to submit to its will. Indeed, science and religion is a discourse that has always attracted attention among intellectuals. Until now, there is still a strong assumption in the wider community that "religion "and "science" are two entities that cannot be reconciled. Both have their respective areas, separate from one another, both in terms of formal material objects, research methods, criteria for truth, the role played by scientists. In other words, science does not care about religion and religion does not care about science (M. Amin Abdullah, 2004: 3).

### **The Concept of Knowledge Integration According to Experts**

Looking at the journal of UIN Suska Riau, according to Amin Abdullah, any science that is compiled cannot but have a philosophical paradigm. The basic assumptions of a scientist are the main things related to the fundamental structure inherent in the building of a scientific building, without exception, both the natural sciences, social sciences, humanities, religious sciences ('Ulûm ad-Dn), religious studies (religious studies) and Islamic sciences. Thus, there is no science—especially one that has been systematized in such a way—that does not have a fundamental structure that can direct and drive the theoretical framework as well as scientific practice and guide the direction of further research and development. he succeeded in publishing a book on Islamic Studies at the Integrative-Interconnective Approach College. This book offers a paradigm of interconnection of knowledge, a more modest thinking (capable of measuring one's own abilities), humility (humble) and humanity (humane).

According to Imam Suprayogo, it is depicted in a tree. there is a beauty, and it is very appropriate to use it to explain the integration between the religious sciences and the general sciences. Trees grow for a long time, years, even certain types of age exceed the age of humans. The life and growth of trees can also illustrate, that science is also always growing and developing.

Muhammad Natsir said that Islamic education is viewed from three sides, namely; Islamic Education Goals, Islamic Education Curriculum and Islamic Education Methods.

### **Madrasah Science Competency (KSM) Integration of Science**

Through the official website of the Madrasah KSKK Directorate, the madrasa science competition was created in order to generate an integration of knowledge or it could be said to unite religious studies with science. As written in the article, it states that the Madrasah Science Competition (KSM) is a competition event in the field of science organized by the Ministry of Religion of the Republic of Indonesia. Madrasah Science Competitions were held from 2012 to 2017 carried out conventionally and technology-based Madrasah Science Competitions started from 2018 until now. The administrative registration and selection process to the implementation of the test utilizes Information Technology to increase accountability and transparency in the implementation of the competition.

The Madrasah Science Competition has been held since 2012 by involving participants from Madrasah Tsanawiyah (MTs) and Madrasah Aliyah (MA) throughout Indonesia. The subjects contested are Mathematics, Biology, and Physics for MTs and Mathematics, Biology, Physics, Chemistry, Geography, and Economics for MA. Then in 2013 madrasah ibtdaiyah (MI) students began to be included, with subjects being contested namely Mathematics and Science. In 2016, the question of Islamic religious material was also added which was tested for all fields, which were distinguished by education level. This applies until the following year. The new policy was set in 2018, where all fields of a purely scientific nature are integrated with Islamic religious sciences that are in accordance with their fields, such as inheritance material in Mathematics, so that all fields are labeled "integrated". This year, the MTs level in Biology and Physics was merged into Integrated Science, and Integrated Social Science was added.

Therefore, the fields that have been contested in KSM since 2018 are as follows.

- MI/SD Level: Integrated Mathematics and Integrated Science
- MTs/SMP levels: Integrated Mathematics, Integrated Science, and Integrated Social Sciences
- MA/SMA level: Integrated Mathematics, Integrated Biology, Integrated Physics, Integrated Chemistry, Integrated Geography, and Economics
- Integrated.

The implementation of this KSM has given birth to many students who excel in their respective fields. The concept of implementing the integration of science in this science competition has stages that must be passed by the competition participants, namely students who will follow it. Madrasah/school level selection, organized by each madrasah/school to select one or more students who will be representatives to take part in the district/city level selection, Regency/city level selection, Provincial level selection, National level selection, followed by representative participants from all provinces in Indonesia. The best participants per field will receive awards in the form of coaching funds, medals, and 3 titles for the best participants, namely the best theory for the best participants on the theory test, the best experiment/exploration for the best participants on the experiment/exploration test, and the best overall for the best participants on both types of tests (theory and experiment/exploration).

The contribution of madrasahs in increasing the integration of students' knowledge in the olympiad activities of the Madrasah Science Competition (KSM). Each institution has carried out the opening activities for the Madrasah Science Competition

(KSM). In this case, this contribution aims to attract prospective students who are talented and excel in the field of science to be prepared for participating in KSM at the Provincial and National levels. It can be seen that this contribution is inseparable from the guidance, enthusiasm and motivation of the educators. The provincial level competition this time has shown the champions who get the best students from the results of the KSM implementation. This KSM is held in stages, starting from the Regency/City level, Province, to national level. In the exam, MIS students must use the Computer Based Test (CBT) application and conduct this year's exam offline with the aim of strengthening the supervisory function in education.

From the results of the description above, it can be explained that the contribution of KSM in increasing the integration of knowledge is very large. This is because madrasas, which are known as religion-based schools, are able to compete in the world of science or science. In this competency, madrasa students who study religion can also try to dive into the world of science. From the years that have been carried out, the process of this activity has produced brilliant madrasa students. The contribution also gives birth to the level of popularity of madrasas that are able to compete in the world of science and become madrasa students to maintain a balance between religion and science as it must be done so that the integration of science will never be separated.

## CONCLUSION

From the results of the explanation, it can be concluded that the Madrasah Science Competition will produce superior seeds in strengthening the integration process of science that can make them compete in the world of science. It has become evidence that KSM is one way for students to learn to unite religious knowledge with science. Then it can be simplified that KSM's contribution to the Integration of Science is very good and suitable to be further improved to make students who have a high cognitive attitude for a bright future and can compete in advancing world civilization.

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