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Workshop on integrating biology instructional strategies with Al-Quran and As-Sunnah value for prospective biology teachers

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ARTICLE INFO ABSTRACT The learning strategies carried out so far by biology teachers prioritize cognitive and psychomotor Article history achievement targets so that affective aspects, especially the values of the Qur'an and As-Sunnah and the formation of Islamic character, tend to be neglected. As a result, it is necessary to provide Received: 2023-02-01 prospective biology teachers with learning strategies that integrate the values of the Al-Qur'an and Revised: 2023-07-09 As-Sunnah in the hope that they can later be applied to their students. The learning strategies Accepted: 2023-07-18 carried out so far by biology teachers prioritize cognitive and psychomotor achievement targets so Published: 2023-09-07 that affective aspects, especially the values of the Qur'an and As-Sunnah and the formation of Islamic character, tend to be neglected. As a result, it is necessary to provide prospective biology Keywords teachers with learning strategies that integrate the values of the Al-Qur'an and As-Sunnah in the Al-Qur'an and As-Sunnah Values hope that they can later be applied to their students. The aim of this workshop is to equip Biology Biology instructional strategy teacher candidates for Madrasah Aliyah and High School so that they have the knowledge and skills Integrating to apply Integrated Biology learning with the values of the Al-Qur'an and As-Sunnah. The method of Training this activity is through a workshop which consists of several activities, namely Product Knowledge debriefing activities, discussion of the stages of the Al-Qur'an and As-Sunnah integrated learning model, simulations and assignments. The workshop was attended by 72 prospective teachers.. Based on the assignment to practice applying the 6 Phases of learning integrated with the values of the Al-Qur'an and As-Sunnah, student skills are not very good. This could be due to several factors, including not being used to it. Pelatihan integrasi strategi pembelajaran biologi dengan nilai-nilai Al-Quran dan As-Sunnah bagi Kata Kunci calon guru biologi. Strategi pembelajaran yang dilakukan oleh guru biologi selama ini lebih mengutamakan target capaian kognitif dan psikomotorik sehingga aspek afektif terutama nilai-nilai Al-Qur'an dan As-Sunnah Al-Qur'an dan As-Sunnah dan pembentukan karakter islami cenderung terabaikan. Untuk itu perlu Integrasi Nilai-nilai pembekalanstrategi pembelajaran yang terintegrasi nilai-nilai Al-Qur'an dan As-Sunnah kepada calon guru biologi dengan harapan kelak dapat diterapkan kepada anak didiknya. Workshop ini Pelatihan bertujuan untuk membekali calon guru Biologi Madrasah Aliyah dan Sekolah Menengah Atas agar Startegi pembelajaran biologi memiliki pengetahuan dan keterampilan untuk menerapkan pembelajaran Biologi terintegrasi dengan nilai-nilai Al-Qur'an dan As-Sunnah. Metode kegiatan ini melalui workshop yang terdiri dari beberapa kegiatan yaitu kegiatan pembekalan Product Knowledge, pembahasan tahapan model pembelajaran terpadu Al-Qur'an dan As-Sunnah, simulasi dan penugasan. Workshop diikuti oleh 72 calon guru. Berdasarkan penugasan untuk latihan menerapkan 6 Phase pembelajaran terintegrasi nilai-nilai Al-Qur'an dan As-Sunnah, keterampilan mahasiswa belum begitu baik. Hal ini bisa disebabkan beberapa faktor diantaranya karena belum terbiasa. Copyright © 2023, Robiah, et al., This is an open access article under the CC-BY-SA Ð 0

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INTRODUCTION

Islam is a religion which has been advocated to have divinity beneficial values for all humanity. For its benefit to all creatures, the value of the religion must be integrated into the national curriculum (Sulayman, 2014). Islamic education has a long purpose and a short purpose. The national standard curriculum is insufficient to achieve the goal, both short and long term. That is, an integrating curriculum model should model science and Islam in a manner proportional to needs developed and accommodated by the national system (Hamami & Nuryana, 2022). Integrating Islamic values into the curriculum is a discourse that has been put forward for a long time by educational experts because it is one of the goals of Islamic education.

Islamic education aims to produce capable human resources with holistic (whole) competence, namely knowledge, skills, faith, and piety toward God Almighty, noble character, Islamic personality, mercy to the universe, Qur'anic character, and awareness of its function as a servant of Allah and representative of God on earth (Hamami & Nuryana, 2022; Sulayman, 2014; Agusti et al., 2019; Robiah, Alwizar & Darus, 2017). To produce human resources with comprehensive competence (integral-holistic), it requires the integration of knowledge because in Islam every piece of knowledge learned, no matter how late, is sourced from Allah subhanahu wa ta'ala, and most importantly, integrating Islamic knowledge will anticipate the issue of knowledge as value-free (Abdullah, 2015; Hassan, 2012; Mustafa et al., 2021; Hamami & Nuryana, 2022; Hassan et al., 2010). It is also argued that Islamic value integration can foster enthusiasm for learning (Anshori, 2021). Students have factual and cultural experiences that correlate with the miracles of the Qur'an (Fahyuni et al., 2020). Al-Qur'an and Sunnah are sources of Islamic sciences, which for social sciences and natural sciences are the basic elements of both grand concepts and grand theories (Mufid, 2014). Scientific cues are used to study empirical science, especially scientific perspectives in discussing the verses of the Qur'an (Saputro et al., 2019). Likewise, in learning natural sciences (IPA), especially biology, students are not only required to know their knowledge but also must understand that order in the universe cannot be separated from the power of God Almighty so that they realize the majesty and admiration for Allah, adding faith and piety as well as forming an Islamic personality in students (Latifah, 2015; Hamzah, 2015; Khoiri et al., 2017; Robiah, S., Alwizar, Vebrian, 2017). There is a need to revise science learning about religion so that it allows students to make cross-disciplinary connections and the curriculum is more meaningful (Torres et al., 2021). Likewise, in the field of biology, Ramadhan et al., (2021) argue that learning biology has the potential to be integrated with the Qur'an and Sunnah.

However, the facts in the learning process starting from tertiary institutions to elementary level schools are still partial, including teacher education institutions, especially biology education study programs whose output is prospective biology teachers who will teach in schools. As seen seen by Hamami & Nuryana, (2022), the education system has not been successful in forming an ideal human because the educational process is partial, and besides that, it has not been able to facilitate the holistic development of students' potential. With a partial higher education system, the output produced, especially in the form of biology teachers, is also partial in terms of educating their students at school. As the facts on the ground show, teachers in the learning process prioritize target achievement cognitively so that aspects effective specifically in embedding values of the Qur'an and Sunnah for building the Islamic personality of students tend to be neglected that the education system has not been successful forming an ideal human because the educational process is partial, besides that, it has not been able to facilitate the development of students 'potential human because the educational process is partial, besides that, it has not been able to facilitate the development of students' potential holistically (Latifah, 2015; Hamzah, 2015; Khoiri et al., 2017; Sholichah et al., 2017).

Apart from that, the reason is also traced as the cause of the lack of training carried out at the partner school for biology teachers (Nurhadi et al., 2017). One of the quick solutions that can be implemented in anticipating the weaknesses of the current curriculum is to provide provisions to prospective biology teachers through workshops on the application of integrated biology instruction on the values of the Qur'an and Sunnah with the hope that they can be applied when carrying out practical field work (school-based practice) or at any school only then will they work.

Based on the background and problems above, this community service aims to equip prospective biology teachers with the skills to apply biology learning strategies integrated with the values of the Qur'an and As-Sunnah. This is in line with one of the Sustainable Development Goals (SDGs), namely quality education. SDG 4 is to "provide quality education for all", according to the United Nations (Our World in Data team, 2023). The SDGs are primarily concerned with promoting sustainable growth via ensuring wellbeing, economic growth, environmental legislation, and academic advancement. One of the most prominent goals of the SDG is to provide learners with high-quality education (SDG 4) (Saini et al., 2023).

METHOD

The workshop was conducted for students of the Biology Education Study Program, Faculty of Teaching and Education, Islamic University of Riau. Workshop participants were 72 who were the prospective high school and Madrasah Aliyah biology teachers: The following were the stages of the workshop conducted (Figure 1).

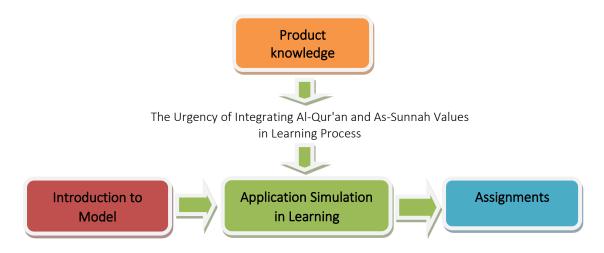


Figure 1. Stages of training activities on the application of integrated biology instruction to values of the Al-Qur'an and As-Sunnah

Explanation of Stage of Workshop Activities carried out in Figure 1 are as follows: **Product Knowledge**, prospective teachers were given an understanding regarding the urgency of integrating Al-Qur'an and As-Sunnah values in the learning process. **Introduction** to the Phases of the Ulul Albab Instructional Model consists of six phases: giving motivation to students, conducting initial meditation, observing or reviewing of literature or material, core reflection, reflection, and finally the Closing Phase. Simulation: a simulation is carried out on how to apply it in learning, but the simulation is only carried out for several learning objectives due to time constraints. **Assignments**. Assignments to practice at home were collected in the form of video recordings.

RESULTS AND DISCUSSION

The community service has been carried out well. Workshop activities can be seen in Figure 2. In Figure 2, it is seen that the workshop activities had been carried out, where the initial stages of prospective teachers are provided with Product knowledge and prospective teachers are given an understanding regarding the urgency of integrating the values of the Qur'an and As-Sunnah in the learning process.



Figure 2. Participants are listening attentively to the speaker in the workshop.

Prospective teachers are also conveyed that all biology material has the opportunity to be integrated with the values of the Qur'an and As-Sunnah, as is the view of Ramadhan et al (2021) that learning biology has the potential to be integrated with the Al-Qur'an and As-Sunnah. However, given the limited time, this workshop only used one teaching

material, namely food materials and the human digestive system. The teaching materials used are also the result of research results that have been validated by lecturers of biologists, learning experts, experts on the Qur'an and hadith, and a team of biology teachers. Teaching materials have been tried out in a limited way in three schools and received very positive responses from students. Introduction to the Phases of the Ulul Albab Instructional Model consists of six phases. Simulation: After the introduction of the phases of the Ulul Albab Instructional Model, a simulation is carried out regarding these phases using the teaching materials that have been prepared. Giving Assignments, prospective teachers are given the task of practicing them at home and collecting them in the form of video recordings after the 3rd day of for evaluation.

Figure 3 is the phases of the ulul albab learning model resulting from research results that have been validated by learning experts and Islamic Religious Education. Phase I, Motivating students, where in this phase even though it is an introductory stage it is very important to implement, where prospective teachers are expected to motivate students not only referring to the material to be taught at that time but also with various forms of motivation such as various aspects of the Prophet's life SAW and his friends and tabi'in, or the enthusiasm and piety of Islamic warriors who can be taken as role models, or the motivation given can be in the form of words of wisdom that are full of meaning, or videos of success and struggle and so on. By providing such motivation, it is hoped that students will not only be enthusiastic about learning that day but, hopefully, can be motivated again to organize their lives in the future to become successful Muslim generations and have strong Muslim personalities. For this reason, it is hoped that prospective teachers will have high enough creativity to prepare various forms of motivation that will be given to their students at the beginning of each lesson. In Phase 2, the teacher guides students to do Early Tafakkur. In this phase, the teacher invites students to contemplate the material to be studied that day. This can be done after the teacher delivers perceptions. Phase 3: The teacher guides students to Observe or review the literature or material being studied that day. Phase 4: The teacher guides students to do Core Tafakkur, which can be done during the observation process or at the end of the observation. Phase 5: The teacher Reflects to evaluate all the activities that have been carried out and can also carry out learning achievement tests. Phase 6, Closing The teacher gives assignments to the students, and the activity ends with prayer. The next activity is conducting.

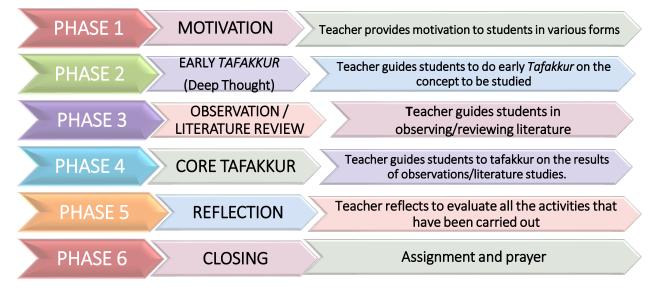


Figure 3. The learning phase integrates the values of the Quran and As-Sunnah.

Based on the assignment of integrated learning implementation practices 6 Phases of the values of the Qur'an and As-Sunnah as shown in Figure 3, the skills of prospective teachers are not good. This can be caused by several factors, including not being used to it considering that the learning carried out so far is still partial, there is no balance of 3 aspects namely intellectual, emotional and spiritual. According to Hanif et al., (2016) and Robiah, S., Suryanti,,. & Ferazona, S. (2022), the education that is developed should be balanced between intellectual, emotional and spiritual intelligence. Presenting spirituality in education will give great meaning to the life of the nation. Confidence will God will lead to a strong commitment to always provide the best for the nation. Another factor is that prospective teachers are still not skilled because the integration of the values of the Qur'an and as-sunnah in the curriculum is still a discourse, (Abdullah, 2015; Hassan, 2012; Mustafa et al., 2021; Hamami & Nuryana, 2022; Hassan et al., 2010). Because of that, it is necessary to review the curriculum until evaluation, and a short-term solution that needs to be done more intensive workshops with sufficient time and it would be even better if there were courses related to biology material that integrates the values of the Qur'an and optimizes their practice in microteaching courses.

CONCLUSION

Community service has been carried out well. Given the large number of participants and limited time for the workshop activities, prospective teachers were assigned to practice them at home and record them using video. The results of the practice evaluation carried out by prospective teachers needs to be improved. Intensive and repetitive training needs to be carried out so that prospective teachers become accustomed to and skilled at applying learning that integrates the values of the Qur'an and Sunnah. It is expected that there will be a further policy to have biology courses that integrate the values of the Qur'an and Sunnah, and biology students practice them in microteaching courses so they get used to them. In addition, it is necessary to conduct more intensive workshops on other biological materials.

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REFERENCES

- Abdullah, MA (2015). Religion, science, and culture: An integrated, interconnected paradigm of science. *Al-Jami'ah: Journal of Islamic Studies*, *52* (1), 175. https://doi.org/10.14421/ajis.2014.521.175-203
- Agusti, D., Rahmatan, H., & Sulastri, S. (2019). Development of reproductive system learning modules based on the Qur'an/Haddys to improve students' motivation and learning outcomes. *EDUSAINS*, *11* (1), 132–140. https://doi.org/10.15408/es.v11i1.10270
- Amri M Nurhadi, Rasyidin Al, & Imran Ali. (2017). Integration of Islamic values in biology learning at Al Ulum Integrated Islamic High School Medan. *Edu Riligia*, 1 (4), 487–501. https://doi.org/. http://dx.doi.org/10.47006/er.v1i4.1067
- Anshori, I. (2021). Problem-Based learning remodeling using islamic values integration and sociological research in madrasas. *International Journal of Instruction*, 14 (2), 421–442. https://doi.org/10.29333/iji.2021.14224a
- Fahyuni, EF, Wasis, W., Bandono, A., & Arifin, MBUB (2020). Integrating Islamic values and science for millennial students' learning on using seamless mobile media. *Indonesian Journal of Science Education*, 9 (2), 231–240. https://doi.org/10.15294/jpii.v9i2.23209
- Hamami, T., & Nuryana, Z. (2022). A holistic–integrative approach to the Muhammadiyah education system in Indonesia. *HTS Theologiese Studies / Theological Studies, 78* (4), 1–10. https://doi.org/10.4102/hts.v78i4.7607
- Hamzah, F. (2015). Study on the development of science learning modules based on islamic science integration on the subject of reproductive systems for grade 9 Madrasah Tsanawiyah. *Adabiyah: Journal of Islamic Education, 1* (1), 41–54. https://doi.org/10.21070/ja.v1i1.163
- Hanif, H., Ibrohim, I., & Rohman, F. (2016). Pengembangan perangkat pembelajaran biologi materi plantae berbasis inkuiri terbimbing terintegrasi nilai islam untuk meningkatkan pemahaman konsep siswa SMA. Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan, 1(11), 2163–2171-2171. https://doi.org/http://dx.doi.org/10.17977/jp.v1i11.8042
- Hasan, N. (2012). Education, young islamists and integrated islamic schools in Indonesia. *Studia Islamika*, 19 (1). https://doi.org/10.15408/sdi.v19i1.370
- Hassan, A., Suhid, A., Abiddin, NZ, Ismail, H., & Hussin, H. (2010). The role of Islamic philosophy of education in aspiring holistic learning. *Procedia-Social and Behavioral Sciences*, 5, 2113–2118. https://doi.org/10.1016/j.sbspro.2010.07.423
- Khoiri, A., Agussuryani, Q., & Hartini, P. (2017). Islamic character development through science-islamic integrationbased physics learning. *Tadris: Journal of Teacher Training and Tarbiyah Sciences*, *2* (1), 19. https://doi.org/10.24042/tadris.v2i1.1735
- Latifah, S. (2015). Development of integrated natural sciences modules integrated verses of the Qur'an on the material of water as a source of life. *Scientific Journal of Physics Education Al-Biruni*, *4* (2), 155–164. https://doi.org/10.24042/jpifalbiruni.v4i2.89
- Mufid, F. (2014). Islamic sciences integration. *QIJIS (Qudus International Journal of Islamic Studies)*, 2 (2), 144–160. https://doi.org/DOI : 10.21043/qijis.v2i2.1565
- Mustafa, Z., Baharuddin, A., & Saifuddeen, SM (2021). Islam, science, and education: Delving into the progress, collaboration, and biases. *Journal of Islamic Thought and Civilization*, *11* (2), 44–68. https://doi.org/10.32350/jitc.11.2.03
- Our World in Data team (2023). Ensure inclusive and quality education for all and promote lifelong learning. Published

online at OurWorldInData.org. https://ourworldindata.org/sdgs/quality-education.

- Ramadhan, AN, Dwiningrum, SIA, & Subhan, B. (2021). The potential of integrating biology learning with Quran-Hadith learning. *AL QUDS: Journal of the Study of the Koran and Hadith*, *5* (1), 263.
- https://doi.org/10.29240/alquds.v5i1.2355
- Robiah, S., Suryanti, S., & Ferazona, S. (2022). Pelatihan pemantapan penguasaan bahan ajar IPA terintegrasi nilai-nilai Al-Qur'an pada guru-guru SD Kab. Indragiri Hulu. *Buletin Pembangunan Berkelanjutan*, 5(3). https://doi.org/10.25299/bpb.2021.8696
- Robiah, S., Alwizar, QM., Vebrianto, R (2017). Pengembangan media power point terintegrasi imtaq pada materi sistem reproduksi. *Komunikasi Dan Industri*, 1(6), 7–11. http://ejournal.uin-suska.ac.id/index.php/SNTIKI/article/view/3176
- Robiah, S., Alwizar,QM, Darus, M. (2017). Biology learning tool that integreted with IMTAQ. Proceedings of International Malaysia-Indonesia Thailand, Symposium on Innovation and Creativity (IMIT-SIC), 3 (1), 2017 : 595-601. e-ISBN.9789671401750
- Saini, M., Sengupta, E., Singh, M., Singh, H., & Singh, J. (2023). Sustainable Development Goal for Quality Education (SDG 4): A study on SDG 4 to extract the pattern of association among the indicators of SDG 4 employing a genetic algorithm. *Education and Information Technologies*, 28(2), 2031–2069. https://doi.org/10.1007/s10639-022-11265-4
- Saputro, B., Marjuni, KN, Kuswaya, A., Saputra, H., & Fadly, W. (2019). Developing stages for the scientific cues concept in the integrated science-tafseer learning model. *Indonesian Journal of Science Education*, 8 (1), 63–74. https://doi.org/10.15294/jpii.v8i1.17149
- Sholichah, AS, Puspita, L., Komarudin, K., Astriani, M., Husna Nafila, N., Azmi, N., Muspiroh, N., Key, K., Application,:,
 Biology, P., Imtaq, B., Thinking, K., Khoiri, A., Agussuryani, Q., Hartini, P., Khusnah, L., Ibrahim, Ghofur, A., Irwan, I.,
 Hasan, N. (2017). Islamic character development through science-islamic integration-based physics learning. *JPBI* (*Journal of Indonesian Biology Education*), 5 (1), 19. https://doi.org/10.15408/sdi.v19i1.370
- Sulayman, HI (2014). Values-based curriculum model: a practical application of integrated 'Maqasid Al-Sharia' for wholeness development of mankind. *Procedia - Social and Behavioral Sciences*, *123*, 477–484. https://doi.org/10.1016/j.sbspro.2014.01.1447
- Torres, AC, Paiva, J., & Mouraz, A. (2021). High school students' questions about science and religion in school debates with scientists. *Eurasia Journal of Mathematics, Science and Technology Education*, *17* (6), 1–12. https://doi.org/10.29333/ejmste/10864