



Development of Integrated Science Teaching Materials of Al-Quran Verses in Improving Students' Religious Attitudes in Madrasas

Abdul Kadir¹, Muhammad Shaleh Assingkiy², Jahidin³, Sufiani⁴, Salma Samputri⁵,
Mustapa Ahmad⁶

Institut Agama Islam Negeri Kendari, Sulawesi Tenggara, Indonesia^{1,2,4}

Universitas Halu Oleo, Kendari, Sulawesi Tenggara, Indonesia³

Universitas Negeri Makassar, Sulawesi Selatan, Indonesia⁵

Universitas Al Azhar, Kairo, Egypt⁶

Email correspondence: abdireducation@gmail.com,

Received: 26-02-2024

Revised: 23-08-2024

Accepted: 21-10-2024

Abstract

Various previous studies have responded to the study of the challenges of moral degradation in the digital era. However, the focus of the study has not yet been found in the form of the integrality of Qur'anic verse-based Learning with a locus in Madrasah Tsanawiyah. It is believed that this integrality fosters students' religious attitudes. This study aims to develop a product of integrated science teaching materials of the Qur'anic verses to improve students' religious attitudes in madrasah. This type of research is research and development (R&D), adapting the Borg & Gall model with the A.D.D.I.E. stages, analysis, design, development, implementation, and evaluation, because it is considered relevant to describe the chronology of Learning product development from the beginning. The results of this study found that science teaching materials integrated with al-Qur'an verses are valid and very feasible to use in student science Learning at MTsN Konawe Regency with an average value of 91.98% of the validity test results. Then, science teaching materials integrated with al-Qur'an values have a practicality value to be applied at MTsN Konawe Regency, marked by the average score of 1.64 small groups and 1.79 large groups. Science teaching materials integrated with al-Qur'an values are effectively used in science Learning after being developed in small and large groups with a probability value (ρ) Sig. = 0.000 $< \alpha = 0.05$, meaning there is a significant difference in students' spiritual attitudes before and after treatment using science teaching materials integrated with the Qur'an. Thus, it is concluded that the product of science teaching materials integrated with al-Qur'an verses is appropriate for improving students' religious attitudes in madrasah.

Keywords: Integrative Teaching Materials, Madrasas, Science Learning, Religious Attitudes.

Abstrak

Beragam penelitian terdabulu, banyak merespons kajian tantangan degradasi moral di era digital. Namun, belum ditemukan fokus telaah berupa integralitas pembelajaran berbasis ayat al-Qur'an dengan locus di madrasah tsanawiyah. Padahal, diyakini bahwa integralitas tersebut menumbuhkan sikap religius siswa. Penelitian ini bertujuan mengembangkan produk bahan ajar IPA terintegrasi ayat al-Qur'an dalam meningkatkan sikap religius siswa di madrasah. Jenis penelitian ini ialah *research and development (R&D)*, mengadaptasi model Borg & Gall dengan tahapan ADDIE,

analysis, design, development, implementation, dan evaluation, karena dipandang relevan untuk mendeskripsikan sejak awal kronologi pengembangan produk pembelajaran. Hasil penelitian ini menemukan bahwa bahan ajar IPA terintegrasi ayat al-Qur'an valid dan sangat layak digunakan dalam pembelajaran IPA siswa di MTsN Kabupaten Konawe dengan nilai rata-rata 91,98% hasil uji validitas. Kemudian, bahan ajar IPA terintegrasi nilai al-Qur'an memiliki nilai kepraktisan untuk diterapkan di MTsN Kabupaten Konawe ditandai hasil skor rata-rata 1,64 kelompok kecil dan 1,79 kelompok besar. Bahan ajar IPA terintegrasi nilai al-Qur'an efektif digunakan dalam pembelajaran IPA setelah dikembangkan pada kelompok kecil maupun kelompok besar dengan nilai probabilitas (ρ) Sig. = 0.000 < α = 0.05, artinya terdapat perbedaan signifikan pada sikap spiritualitas siswa antara sebelum dan sesudah perlakuan menggunakan bahan ajar IPA terintegrasi al-Qur'an. Dengan demikian, disimpulkan bahwa produk bahan ajar IPA terintegrasi ayat al-Qur'an tepat digunakan untuk meningkatkan sikap religius siswa di madrasah.

Kata Kunci: Bahan Ajar Integratif, Madrasah, Pembelajaran IPA, Sikap Religius.

INTRODUCTION

Religious attitudes are important in many teaching contexts today, as they directly impact learners' personalities, social attitudes and skills.¹ The fundamental reason for the importance of religious attitudes is that they are the foundation for the development of personality profiles, value frameworks, and ethics of learners according to religious guidance, which impacts their moral decisions and daily behaviour.² The internalisation of religious values this decade, associated with the concept of integrative learning, as 'evidence of collective awareness' of education-based character development.³

Integrative learning-based student religious character building is an important step in integrating whole values without dichotomy,⁴ so that it is expected to be a formulation in the formation of plenary character in students.⁵ In the 21st century, the imbalance between

¹ Julie C. Herbstrith dkk., "Religion in the Public Schools: An Examination of School Personnel Knowledge of the Law and Attitudes toward Religious Expression," *Research in Education* 106, no. 1 (Mei 2020): 77–97, <https://doi.org/10.1177/0034523718821705>; Dariusz Krok, "Examining the Role of Religion in a Family Setting: Religious Attitudes and Quality of Life among Parents and Their Adolescent Children," *Journal of Family Studies* 24, no. 3 (2 September 2018): 203–18, <https://doi.org/10.1080/13229400.2016.1176589>.

² Ari Kartiko dkk., "Improving Teacher Job Satisfaction Through Organizational Commitment and Organizational Citizenship Behavior in The Digitalization Era," *Nidbomul Haq: Jurnal Manajemen Pendidikan Islam* 8, no. 2 (15 Oktober 2023): 315–27, <https://doi.org/10.31538/ndh.v8i2.3960>.

³ Ahmad Aseery, "Enhancing Learners' Motivation and Engagement in Religious Education Classes at Elementary Levels," *British Journal of Religious Education* 46, no. 1 (2 Januari 2024): 43–58, <https://doi.org/10.1080/01416200.2023.2256487>; Ahmed Hamad Al-Rabaani, "Views of Omani Post-Basic Education Students about Religious and Cultural Tolerance," *Cambridge Journal of Education* 48, no. 1 (2 Januari 2018): 87–101, <https://doi.org/10.1080/0305764X.2016.1252314>.

⁴ Najwan Saada, "Educating for Global Citizenship in Religious Education: Islamic Perspective," *International Journal of Educational Development* 103 (November 2023): 102894, <https://doi.org/10.1016/j.ijedudev.2023.102894>; Luluk Asmawati, "The Development of Puzzle Games for Early Childhood Based on the Banten Local Culture," *Jurnal Ilmiah Peuradeun* 11, no. 2 (30 Mei 2023): 531–50, <https://doi.org/10.26811/peuradeun.v11i2.895>.

⁵ Amalia Rabiatal Adwiah, Aulia Faraz Tantia, dan Intan Asyikin Rantikasari, "Implementation of Storytelling Method with Folktales in Instilling Character Values in Children: A Study at ABA Warungboto Kindergarten," *Golden Age: Jurnal Ilmiah Tumbuh Kembang Anak Usia Dini* 8, no. 1 (31 Maret 2023): 47–57, <https://doi.org/10.14421/jga.2023.81-05>; Ainur Rofiq, Khoirun Nisa, dan Abdul Muid, "Innovation of Storytelling and Role-Playing Methods in Islamic Religious Education Learning," *At-Tadzkiir: Islamic Education Journal* 3, no. 1 (4 Maret 2024): 47–58, <https://doi.org/10.59373/attadzkiir.v3i1.52>.

advances in science and technology and morality is a problem in every learning process,⁶ so that the government facilitates the strengthening of character education (PPK) programme, the national movement for mental revolution (GNRM), and the formation of the Pancasila student profile.⁷ In essence, scientific integration is a real form of integrating the character of science into all dimensions, including natural science (IPA) at every level of the education unit.⁸

The reality shows that science Learning in schools/madrasas is taught theoretically, not much linking to the problems faced by students in real daily life,⁹ creating an atmosphere of active learners in learning activities is not optimal, tends to be teacher-centered, and has not trained students to think scientifically.¹⁰ Several factors contribute to the non-implementation of science learning, including the difficulty some teachers still have designing lessons based on the science curriculum's content standards and limited teaching materials.¹¹

In connection with the limitations of science teaching materials, it is a common problem that causes the lack of efforts to improve students' science process skills.¹² Because, learning in practice tends to require students to memorise, follow textbook guidelines, and is less associated with how the science that students learn is able to overcome problems that

⁶ Ethan Chang, "Beyond Workforce Preparation: Contested Visions of 'Twenty-First Century' Education Reform," *Discourse: Studies in the Cultural Politics of Education* 40, no. 1 (2 Januari 2019): 29–45, <https://doi.org/10.1080/01596306.2018.1549702>; Nisa Fitriani, Syamsul Anam, dan Asep Maulana, "Building Literacy of Early Age Students' Language; Teacher Managerial Competence and Legal-Rational Authority of Boarding School Leaders," *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 5, no. 1 (2024): 41–50, <https://doi.org/10.31538/munaddhomah.v5i1.707>.

⁷ Gp Harianto dkk., "Collaborative-Cooperative Learning Model to Improve Theology Students' Characters: Is It Effective?," *Jurnal Cakrawala Pendidikan* 39, no. 2 (19 Juni 2020): 409–21, <https://doi.org/10.21831/cp.v39i2.31272>.

⁸ Suyadi dkk., "Academic Reform and Sustainability of Islamic Higher Education in Indonesia," *International Journal of Educational Development* 89 (1 Maret 2022): 102534, <https://doi.org/10.1016/j.ijedudev.2021.102534>; Rohana Hamzah dkk., "Introduction to Spiritual Intelligence for Non-Muslim Students at a Higher Learning Institution," *Jurnal Ilmiah Peuradeun* 12, no. 2 (30 Mei 2024): 831–54, <https://doi.org/10.26811/peuradeun.v12i2.1000>.

⁹ I. Maryani dkk., "Learning Difficulties of the 5th Grade Elementary School Students in Learning Human and Animal Body Organs," *Jurnal Pendidikan IPA Indonesia* 7, no. 1 (3 April 2018): 96–105, <https://doi.org/10.15294/jpii.v7i1.11269>; Maya Ruhtiani dkk., "Legal Protection of Architectural Works as Copyright: An Epistemological and Islamic Law Perspective," *El-Mashlahab* 14, no. 1 (7 Juni 2024): 43–70, <https://doi.org/10.23971/el-mashlahab.v14i1.7645>.

¹⁰ Shih-Yuan Huang, Yi-Han Kuo, dan Hsueh-Chih Chen, "Applying digital escape rooms infused with science teaching in elementary school: Learning performance, learning motivation, and problem-solving ability," *Thinking Skills and Creativity* 37 (1 September 2020): 100681, <https://doi.org/10.1016/j.tsc.2020.100681>; Hasneli Hasneli, Meirison Meirison, dan Qasem Muhammadi, "Educational Renewal During Muhammad Ali Period and Its Impact on The Al-Azhar Educational Institution," *Tafkir: Interdisciplinary Journal of Islamic Education* 5, no. 1 (14 Januari 2024): 27–40, <https://doi.org/10.31538/tijie.v5i1.687>.

¹¹ Ritchelee Alugar, "Experiences of Millennial Teachers in the Academe: A Phenomenological Inquiry," *International Journal of Education, Technology and Science* 1, no. 4 (30 November 2021): 119–31; Claire Alkouatli, "Pedagogies in Becoming Muslim: Contemporary Insights from Islamic Traditions on Teaching, Learning, and Developing," *Religions* 9, no. 11 (November 2018): 1–18, <https://doi.org/10.3390/rel9110367>.

¹² Rosijanih Arbie dkk., "Student's Understanding of Islamic Religion Course Material With a Basic Semiotics Approach to Improve Reading Skills," *Tafkir: Interdisciplinary Journal of Islamic Education* 4, no. 2 (13 Juni 2023): 224–40, <https://doi.org/10.31538/tijie.v4i2.362>; Nuphanudin Nuphanudin dkk., "Using Mobile Technology in Student Learning and Advanced Thinking Skills," *Tafkir: Interdisciplinary Journal of Islamic Education* 4, no. 3 (9 September 2023): 473–85, <https://doi.org/10.31538/tijie.v4i3.493>.

occur in the surrounding environment.¹³ The point of solving this problem is certainly oriented towards efforts to realise the vision of integrative learning in increasing student benefits for all levels of society.¹⁴ Indeed, science learning is interesting to present, but because the teaching given by teachers is conceptual, based on conventional methods, so it is assumed by some students with boring learning.¹⁵

Based on preliminary observations in the field, the presentation of material on science teaching materials that have been circulating in madrasas is still not packaged in certain concepts or themes. The presentation of material in teaching materials is still separated based on the fields of study even though it has been put together in a book. One of the science teachers at MTs stated that digital era science teaching materials are easy to find, but there are still not enough teaching materials that integrate the value of science based on the verses of the Qur'an. This is because many science teaching materials still use teaching materials based on the old curriculum.¹⁶ Therefore, if the quality of existing teaching materials does not meet quality standards, especially in relation to concepts and concept applications, what happens is that these teaching materials will become less effective learning resources.¹⁷ This has an impact on the implementation of learning carried out by teachers who are not optimal and cause the achievement of student learning outcomes that are not optimal.¹⁸

The current learning implementation shows that conceptually there is material that is sustainable between science and Islam, but the teaching context that integrates science learning based on verses of the Qur'an is not optimal, so efforts are needed to strengthen students' understanding of the value of scientific integration in the science learning process.¹⁹ On this basis, students also continue to compete in the field of knowledge (getting smarter with the sophistication of technology), but moral degradation and deviations in student behaviour 'haunt' the world of education, as evidenced by the rampant acts of bullying,

¹³ Ronald Pérez Álvarez dkk., "Tools Designed to Support Self-Regulated Learning in Online Learning Environments: A Systematic Review," *IEEE Transactions on Learning Technologies* 15, no. 4 (Agustus 2022): 508–22, <https://doi.org/10.1109/TLT.2022.3193271>.

¹⁴ Mas'udi Mas'udi dan Muflihah Muflihah, "Islamic Boarding School as an Ecosystem for Religious Moderation Education in The Madura Society," *Edukasia: Jurnal Penelitian Pendidikan Islam* 18, no. 2 (29 April 2024): 145–62, <https://doi.org/10.21043/edukasia.v18i2.22679>.

¹⁵ Aufl Azmi Fu'adah, Nikmatus Sholihah, dan Masthuroh Masthuroh, "Pengelolaan Arsip Dalam Menunjang Layanan Informasi Pada Bagian Tata Usaha Di Madrasah Aliyah Negeri," *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 3, no. 1 (23 Juni 2022): 57–69, <https://doi.org/10.31538/munaddhomah.v3i1.113>.

¹⁶ A. Akrim dkk., "Transformation of Islamic Education Curriculum Development Policy in the National Education System," *Cypriot Journal of Educational Sciences* 17, no. 7 (2022): 2538–52.

¹⁷ Ahmad Mukhtar B dkk., "The Role of Quality Human Resources in Developing Missions of Future Universities in Indonesian Higher Education," *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 4, no. 1 (14 Februari 2023): 49–59, <https://doi.org/10.31538/munaddhomah.v4i1.342>; Mohammad Reza Azizi dkk., "Innovative Human Resource Management Strategies during the COVID-19 Pandemic: A Systematic Narrative Review Approach," *Heliyon* 7, no. 6 (1 Juni 2021): e07233, <https://doi.org/10.1016/j.heliyon.2021.e07233>.

¹⁸ Lindsay K. Crawford, Kimberly Arellano Carmona, dan Rewanshi Kumar, "Examining the Impact of Project-Based Learning on Students' Self-Reported and Actual Learning Outcomes," *Pedagogy in Health Promotion*, 13 Maret 2024, 23733799241234065, <https://doi.org/10.1177/23733799241234065>; Muhammad Aditya Firdaus, Moh Yusup Saepuloh Jamal, dan Bambang Samsul Arifin, "Improving Student Learning Outcomes Through Project-Based Learning in Islamic Religion Lessons," *Tajfikir: Interdisciplinary Journal of Islamic Education* 4, no. 2 (13 Juni 2023): 241–54, <https://doi.org/10.31538/tijie.v4i2.400>.

¹⁹ Dian Andesta Bujuri dan Masnun Baiti, "Pengembangan Bahan Ajar IPA Integratif Berbasis Pendekatan Kontekstual," *Terampil: Jurnal Pendidikan dan Pembelajaran Dasar* 5, no. 2 (8 Februari 2019): 184–97, <https://doi.org/10.24042/terampil.v5i2.3173>.

therefore to make students a balanced person requires the concept of scientific integration.²⁰ In the process, most educators (science teachers) do not try to integrate science material with the Qur'an.²¹ At present, the reality is that learning interactions in integrating science and religion are still rarely found, so a formula is needed in instilling religious attitudes and behaviour in the form of integrated teaching materials for science and Islam.²²

Relevant research has revealed efforts to integrate science learning based on an Islamic-science foundation at every level from elementary school to college. The relevant themes that have been researched include the study of the development of integrative-contextual science teaching materials in schools, science learning module products based on Islam-science integration,²³ Islamic value-based science module in madrasah,²⁴ Integration of Islamic-based science teaching material development as an effort to eliminate scientific dichotomy in madrasas,²⁵ local wisdom-based integrative science learning model,²⁶ and the development of science teaching materials based on the scientific approach.²⁷

Various loci have become the centres of previous research, but teaching conditions that have not implemented integrative learning are commonly found in school units or madrasas, including in MTsN in Konawe Regency. This is based on a preliminary study that shows the results of observations that science teaching in madrasas in Konawe Regency has not fully integrated Islamic values. The teachers teach by referring to the content of ordinary printed books that have not been integrated with the value of the Qur'an, so that the criteria for science learning completeness are still classified as low categories. A module is needed as

²⁰ Hasan Basri dan Alamin Abdullah, "Curriculum Integration Constructs in Integrated Islamic Elementary School," *Tafkir: Interdisciplinary Journal of Islamic Education* 5, no. 1 (6 Februari 2024): 79–99, <https://doi.org/10.31538/tijie.v5i1.873>; M. Amin Abdullah, "Religion, Science, and Culture: An Integrated, Interconnected Paradigm of Science," *Al-Jami'ah: Journal of Islamic Studies* 52, no. 1 (8 Juni 2014): 175–203, <https://doi.org/10.14421/ajis.2014.52.1.175-203>.

²¹ Martin Kustati dkk., "The Model for Maintaining Families with Noble Character During the Pandemic in Kampung KB Villages," *Jurnal Ilmiah Peuradeun* 12, no. 1 (30 Januari 2024): 1–26, <https://doi.org/10.26811/peuradeun.v12i1.1126>; Asrizal Saiin dkk., "Walking Together: Dynamics of Muslim Wives Dual Role in Rural Areas Pursuing Career and Household Responsibilities," *El-Mashlahah* 14, no. 1 (30 Juni 2024): 127–48, <https://doi.org/10.23971/el-mashlahah.v14i1.7827>.

²² Achmad Nadif, Juli Amaliya Nusucha, dan Ainur Rofiq, "The Concept of Soft Skills Teacher Islamic Education Studies The Book 'Izzat Al-Nasyi'in By Sheikh Musthafa Al Ghalayani," *Dirasab International Journal of Islamic Studies* 1, no. 2 (29 Oktober 2023): 102–10, <https://doi.org/10.59373/drs.v1i2.20>; Maidahtus Sholihah, Cholil, dan Yusria Ningsih, "Qur'anic Counseling with Motivational Guidance QS. Al-Baqarah Verses 155-156, in Overcoming Anxiety in One of the Students," *Dirasab International Journal of Islamic Studies* 2, no. 1 (18 Juni 2024): 87–95, <https://doi.org/10.59373/drs.v2i1.32>.

²³ Kristján Kristjánsson dkk., "Phronesis (Practical Wisdom) as a Type of Contextual Integrative Thinking," *Review of General Psychology* 25, no. 3 (1 September 2021): 239–57, <https://doi.org/10.1177/10892680211023063>.

²⁴ Lennart Steffen Milles dkk., "Student engagement in medical education: A mixed-method study on medical students as module co-directors in curriculum development," *Medical Teacher* 41, no. 10 (3 Oktober 2019): 1143–50, <https://doi.org/10.1080/0142159X.2019.1623385>; Nuriman Nuriman dkk., "A Study of Embracing Adolescent Islamic Moral Values at Two Schools in Rural Area," *Jurnal Ilmiah Peuradeun* 12, no. 1 (30 Januari 2024): 117–36, <https://doi.org/10.26811/peuradeun.v12i1.1045>.

²⁵ Tim Fawns, "An Entangled Pedagogy: Looking Beyond the Pedagogy—Technology Dichotomy," *Postdigital Science and Education* 4, no. 3 (1 Oktober 2022): 711–28, <https://doi.org/10.1007/s42438-022-00302-7>.

²⁶ Endun Abdul Haq dkk., "Management of Character Education Based on Local Wisdom," *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam* 7, no. 1 (24 Maret 2022): 73–91, <https://doi.org/10.31538/ndh.v7i1.1998>.

²⁷ Masturin Masturin, "Development of Islamic Religious Education Materials Based on Religious Moderation in Forming Student Character," *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 3, no. 4 (2022): 346–55, <https://doi.org/10.31538/munaddhomah.v3i4.310>.

an integrative science teaching material to form students' religious attitudes. In addition, the teaching content also instills social-spiritual values such as religious tolerance and moderation, with the concept of inclusive teaching in the classroom.

This research has practical, empirical, contextual, and policy contributions. Practically, this research contributes to science teachers to apply science teaching materials integrated with Quranic values so that students' religious attitudes can increase significantly. Empirically, this research contributes to the science subject teacher community to see the consistency of teachers in applying core values of scientific integration in madrasah. Contextually, it can be used as a reference to apply the results of this study in schools/madrasas based on Quranic values.

RESEARCH METHOD

This research uses a Research and Development approach, adapting the Borg & Gall research model with the development of the device, adopting the ADDIE development model, which includes the following stages: analysis, design, development, implementation, and evaluation.²⁸ In the analysis stage, efforts were made to identify research needs, analyze the object of research, and analyze the context of formal and material objects. Furthermore, the results at the analysis stage become material for determining the formulation of teaching material development objectives, strategy selection, material development, and making an integrative learning evaluation plan. The next stage is development, which is the process of making, testing and revising products (integrative teaching materials). Products in the form of integrative teaching materials are then implemented and evaluated to review the contribution of products that have been produced to science learning in madrasah.

The subjects of this study consisted of educational experts consisting of 4 people who played a role in providing data on the validity of learning products which included; 2 integration experts from experienced lecturers, 1 media expert, 1 material expert. Students play a role in obtaining data on the practicality and effectiveness of the product (science teaching materials integrated with Quranic values). The students in question are samples at the product implementation stage (experiment) consisting of 12 people for small group sample trials and 24 students for large group sample trials.

²⁸ Walter R. Borg dan Meredith D. Gall, *Educational Research: An Introduction* (Longman, 1983).

The research design can be seen in the figure below.

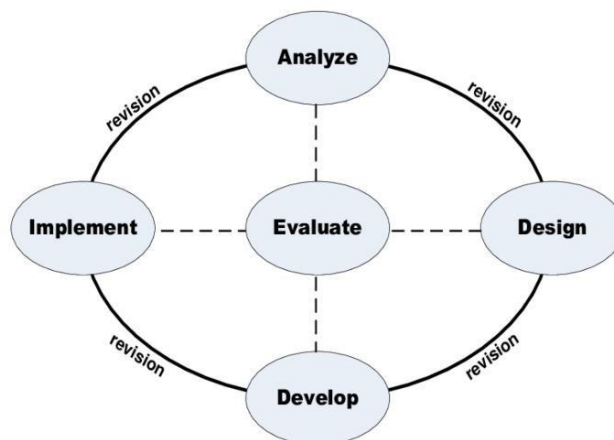


Figure 1. ADDIE Model Design

This research produces science teaching materials integrated with Quranic verses, because it produces products so this research is Research and Development research. This media development refers to the ADDIE development model with the stages of analysis including analysis of needs and tasks; design includes determining the objectives studied, preparing tests, determining the use of strategies, making science modules integrated with the Koran, integrating the use of methods; development includes developing teaching materials, validating material experts, media experts, and integration experts (integration of science with the Koran); implementation includes large-scale tests; and evaluation includes testing the effectiveness, practicality, and applicability of teaching materials.

RESULTS AND DISCUSSION

Results

Data Description Preliminary study

From the results of the preliminary study conducted at Madrasah Tsanasiyah Konawe Regency, some information was obtained regarding the condition of the madrasah; both regarding the strengths and weaknesses of each madrasah. Data on the learning process in the madrasah that has been going on, data on students and teachers as well as the facilities and infrastructure available. The data obtained from this preliminary study is used as a foundation for the development of science teaching materials integrated with Quranic values which are expected to improve students' religious attitudes. Data collection was carried out using questionnaires, observations, and documentation studies as well as interviews.

The results of the questionnaire given to students obtained data 82.7% of students were dissatisfied with the science teaching materials available at school, did not make them learn independently and as many as 96.82% needed new teaching materials that could improve students' religious attitudes. When the author said that he would make science teaching materials integrated with Quranic values for science learning at MTsN, all students (100%) spontaneously agreed.

The results of the questionnaire given to teachers stated that the condition of science teaching materials integrated with Quranic values used in science learning at MTSN Konawe Regency, does not yet exist. The impact of using science teaching materials on changes in students' religious attitudes has not been measured. Teachers need other media in the form of science teaching materials integrated with Quranic values to improve students' religious attitudes. This description shows the existence of conditions and potential that support the development of science teaching materials integrated with Quranic values at MTsN Konawe Regency.

Product Development Results

Product development is one of the stages in the research and development process. To develop a product, the designed product needs to be validated by several experts so that it becomes valid. Tadhkiroh *et al.* said that a new product produced in development research must at least fulfill three criteria: validity. A product is said to be valid if it reflects the state of the art of knowledge, also called content validity.²⁹

In this study, the product is a science learning material integrated with Quranic values at MTsN Konawe Regency. In order for the product or learning material developed to be declared valid, the learning device needs to be validated by a number of experts in accordance with their fields of expertise. Validation of learning materials is basically the validation of learning materials used in implementing those developed in the learning process. The science learning material developed in this study is a learning material that can be used to aim to improve knowledge, religious attitudes and student behaviour on science learning materials at MTsN Kabupaten Konawe.

Furthermore, the results of expert validation are outlined in table (1) below:

Table 1. Expert Validation Results

Assessment Criteria	Validator 1	Validator 2	Validator 3	Validator 4	Description
Relevance of the material	Very relevant	Very relevant	Very relevant	Very relevant	Eligible
Language Quality	Very relevant	Relevant	relevant	Very relevant	Eligible
Attractive design	Very relevant	Very relevant	Very relevant	Very relevant	Eligible
Ease of use	Very relevant	Relevant	Very relevant	relevant	Eligible

The validation of learning tools used in this science learning material is carried out through a series of validations by experts in accordance with their fields of expertise. The purpose of validating this learning tool is so that the learning material developed becomes a valid learning product, which is one of the criteria for product development results from a development research (Research and Development). Products in the form of teaching

²⁹ Muhammad Abu Bakar, Khidriyah Amimatul Umroh, dan Fatima Hameed, "Improving Quality Islamic Education for Today's Generation," *At-Tadzkiir: Islamic Education Journal* 2, no. 2 (26 Agustus 2023): 118–28, <https://doi.org/10.59373/attadzkiir.v2i2.42>.

materials are said to be valid if the material or content in the learning device is truly in accordance with theoretical and scientific principles. Validation of the teaching materials developed was carried out by involving several experts, including material experts, media experts, and language experts. The product developed is science teaching materials integrated with Quranic values at MTsN Konawe Regency. The assessment used refers to the textbook assessment instrument. National Education Standards Agency (B.S.N.P.) 2006. The results of validation by material (content), language, media and presentation experts are presented in the following figure:

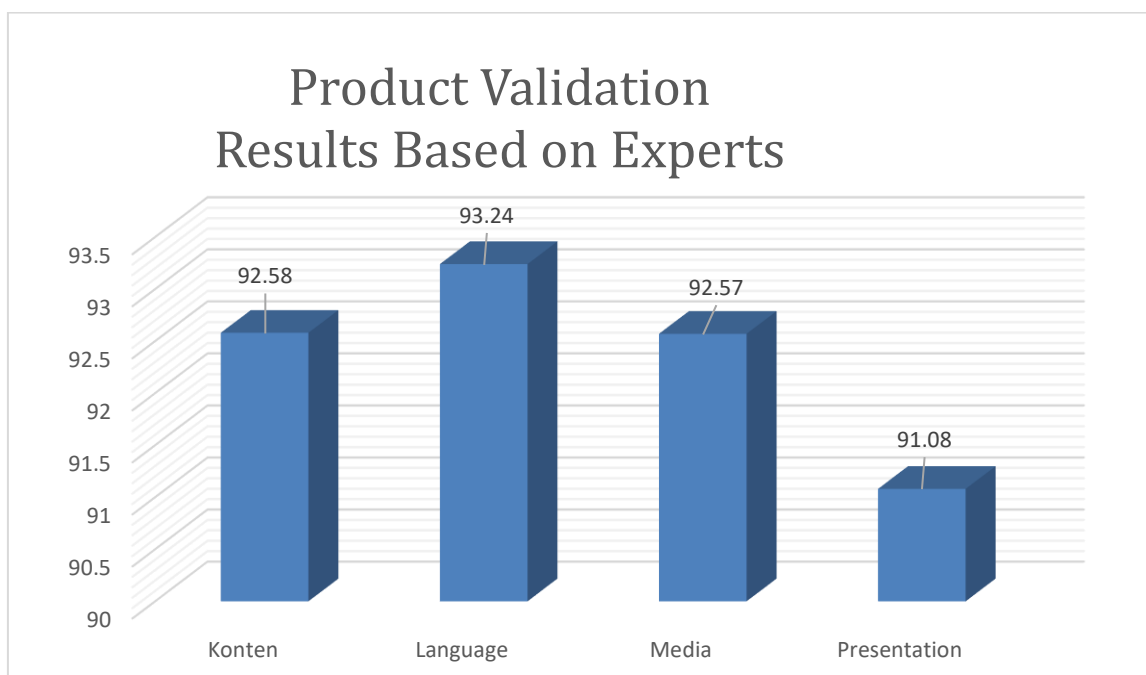


Figure 2. Graph of Product Validation Results by Experts

Based on the validation/assessment of integrated science teaching materials, the value of the Quran from material experts is 92.58%, the assessment from language experts is 93.24%, media experts are 92.57%, product presentation is 91.08%. The overall score of validation values by experts is included in the range $81.28\% < P \leq 100\%$, which means that the teaching materials developed are valid and very feasible to be used as science teaching materials for learning science materials at MTsN Konawe Regency.

Implementation and Evaluation Phase Results

The final product that has been validated after going through the validation stage at the development stage is implemented through a series of trials, both small-group (limited) and large-group (wider) trials. Implementation in small and large groups aims to test the practicality and effectiveness of science teaching material products integrated with Quranic values.

Product Practicality Test Results

One of the criteria that must be met in developing a product is that the product produced must be practical. A product is said to be practical if the product is usable or can be used according to the purpose of product development. In this assessment, the product developed is a science teaching material integrated with Quranic values in science learning. Data on the practicality of teaching materials recorded through observations of the implementation of science learning tools integrated with Quranic values, including; (1) aspects of the implementation of learning syntax, (2) aspects of social interaction, (3) aspects of the reaction principle (4) aspects of the support system and (5) aspects of convenience. Data on these five aspects were used for small group and large group trials as shown in the table below.

Table 2. Data on Observation Results of the Implementation of Science Teaching Materials Integrated with Quranic Values

No	Aspects Assessed	Group Observation Results	
		Small	Big
1.	Implementation of Syntax	1.67	1.78
2.	Social interaction	1.50	2.00
3.	Reaction principle	1.73	1.80
4.	Support system	1.78	1.89
5.	Ease	1.50	1.50
Total		8.18	8.97
Total Average of All Aspects		1.67	1.79
Percentage (%)		81,78	89,67
Category		Completed Overall	

Source: Data Processing Results, 2024

Based on the results of observations of the implementation of science teaching materials integrated with Quranic values for all aspects observed in table (2) above, an average score of 1.64 or 81.78% was obtained in the small group and 1.79 or 89.67% in the large group. The average score and percentage of the assessment are in the interval $1.5 \leq \text{Mean} \leq 2.0$, meaning that the five aspects measured have generally been implemented as a whole, so it can be stated that the science teaching materials integrated with Quranic values as a product in this development research are said to be products that have practicality value to be applied in the science learning process at MTsN in Konawe Regency.

Furthermore, for data on student responses to the use of the developed products (Science teaching materials integrated with Quranic values) that descriptive data on small group samples obtained an average score of 82.71% and on large group samples obtained an average score of 83.65%. Both average scores are included in the range $81.28\% < P \leq 100\%$ in the scoring criteria, which means that the teaching materials are very good to be applied in learning science materials. While the data on the teacher's response to the use of the developed product (Science teaching materials integrated with Quranic values) that descriptively obtained an average score on the first teacher of 87.50% and the average score on the second teacher is 85.42%. Both average scores are included in the range

81.28% $< P \leq 100\%$ in the scoring criteria, which means that the teaching materials are very good to be applied in learning science materials.

Product Effectiveness Test Results

The purpose of developing this teaching material is to develop an innovative learning material and can be used to improve students' religious attitudes and behaviour through the science learning process in Class VII MTsN Kabupaten Konawe. Related to the research objectives, the indicators of the effectiveness of learning material products in this study analyse the increase in students' religious attitudes before and after the treatment of the use of science teaching materials integrated with Quranic values.

One of the goals of development research is to produce an effective product. A product is said to be effective if the product developed provides results in accordance with the predetermined objectives. In this study, one of the objectives of developing teaching materials is to improve students' religious attitudes. Measurement of the increase in students' religious attitudes was carried out both in the small group trial sample and in the large group trial sample. Data on students' religious attitudes in the small group trial sample obtained an average pretest value of 50.67 and a post-test of 75.33, while in the large group the average pretest value was 54.67 and a post-test of 79.33.

Data on the average value of students' religious attitudes both in the small group and in the large group before testing the hypothesis were first tested for analytical requirements, namely; tested for normality and homogeneity. The results of testing the assumptions of all data groups are obtained normally distributed and homogeneous. Furthermore, hypothesis testing (paired t-test) was carried out for the data of the average value of the pretest-posttest of religious attitudes in the small group obtained the probability value (ρ) Sig. = 0.000 $< \alpha = 0.05$ and or the value of $t_{count} = 16.856 > t_{table} = 2.179$ at the level $\alpha = 0.05$. As for the data on the average value of students' religious attitudes in the large group (wider), the probability value (ρ) Sig. = 0.000 $< \alpha = 0.05$ and or the value of $t_{count} = 25.095 > t_{table} = 2.069$ at the level of $\alpha = 0.05$.

This means rejecting H_0 and concluding that in the population (from which the sample was taken) both small and large groups there is a statistically significant difference between the average value of students' religious attitudes before and after treatment using science teaching materials Integrated with Quranic Values on science material. Based on the results of the effectiveness test of science teaching materials integrated with Quranic values in science learning at MTsN Konawe Regency, it can be explained that the religious attitudes of students before being given teaching materials improved for the better after learning to use science teaching materials integrated with Quranic values.

Discussion

In the context of science learning, every material requires a practice-based and contextualised presentation. Because, science material is related to nature, the daily life of students, and is actual and experimental. The fundamental need for learners to know the surrounding nature certainly lies in the mastery of concepts and direct experience, so that it is

inherent as science process skills. Research by Affandi, *et.al.* suggests that learning effectiveness is often assessed through existing media or teaching materials, then synchronised with student learning outcomes or achievements. In fact, teachers should make teaching innovations based on a pedagogical approach with the help of modules or applicable teaching materials.³⁰

Regarding teaching materials for science learning, Huda stated the results of her research, that teachers were found to still make teaching books (teaching package books) the main reference for learning.³¹ In fact, Faizah, *et.al.* recommends teachers to prepare teaching products from year to year as an answer to the teaching constraints that have been done before.³² Thus, teachers are always creative in the learning process, and answer the fulfilment of students' learning needs.³³ However, this has not yet been realised in schools or madrasahs, so it requires more in-depth review and socialisation to improve the quality of learning processes and outcomes.

In fact, it is understood that learning products are an alternative in alleviating the problem of the low level of achievement of the minimum completeness criteria for students.³⁴ This is because through learning products, teachers exemplify creativity and innovation to students. That is, the teacher early exemplifies the results of his work as teaching materials according to the needs of students.³⁵ This is based on scientific teacher analysis during the learning process, identifying problems, and formulating achievement targets in a module, book, or other type of teaching material.

Lestari detailed that teaching materials referring to the government in the form of

³⁰ Muhammad Rayhan Affandi, Maryscha Widyawati, dan Yoga Budi Bhakti, "Analisis Efektivitas Media Pembelajaran E-Learning Dalam Meningkatkan Hasil Belajar Siswa Sma Pada Pelajaran Fisika," *JPF (Jurnal Pendidikan Fisika) FKIP UM Metro* 8, no. 2 (30 September 2020): 150–57, <https://doi.org/10.24127/jpf.v8i2.2910>.

³¹ Miftachul Huda dkk., "Islamic Religious Education Learning Media in the Technology Era: A Systematic Literature Review," *At-Tadzkiir: Islamic Education Journal* 3, no. 2 (7 Juni 2024): 83–102, <https://doi.org/10.59373/attadzkiir.v3i2.62>; Mursal Aziz dkk., "Tahfidzul Qur'an Curriculum Media Innovation in Islamic Boarding Schools," *Tafkir: Interdisciplinary Journal of Islamic Education* 5, no. 2 (2 April 2024): 235–49, <https://doi.org/10.31538/tijie.v5i2.970>.

³² Nivia Okta Faizah, I. Gde Wawan Sudatha, dan Alexander Hamonangan Simamora, "Pengembangan Multimedia Pembelajaran IPA Untuk Meningkatkan Hasil Belajar," *Journal of Education Technology* 4, no. 1 (10 Maret 2020): 52–58, <https://doi.org/10.23887/jet.v4i1.24091>; Silviana Nur Faizah dkk., "Student Acceptance Study of PhET Simulation with an Expanded Technology Acceptance Model Approach," *Journal of Applied Engineering and Technological Science (JAETS)* 5, no. 1 (10 Desember 2023): 279–90, <https://doi.org/10.37385/jaets.v5i1.3041>.

³³ Muhammad Khusaini dkk., "Creating a Harmonious Family Through Social Media Facebook in West Lampung," *El-Mashlahah* 12, no. 2 (31 Desember 2022): 139–52, <https://doi.org/10.23971/el-mashlahah.v12i2.3937>; Neng Lia Yulianengsih, "Teacher Creativity in Classroom Management to Improve Students' Learning Ability," *Attadrib: Jurnal Pendidikan Guru Madrasah Ibtidaiyah* 6, no. 1 (1 April 2023): 57–66, <https://doi.org/10.54069/attadrib.v6i1.383>.

³⁴ Widyatmike Gede Mulawarman dkk., "Character Education Management in Improving Students' Spiritual Intelligence," *Nidbomul Haq: Jurnal Manajemen Pendidikan Islam* 9, no. 1 (4 Maret 2024): 79–90, <https://doi.org/10.31538/ndh.v9i1.4550>; Mike Stieff, "Improving Learning Outcomes in Secondary Chemistry with Visualization-Supported Inquiry Activities," *Journal of Chemical Education* 96, no. 7 (9 Juli 2019): 1300–1307, <https://doi.org/10.1021/acs.jchemed.9b00205>.

³⁵ Wilda Fitria Yakin, Maskud, dan Faisol Nasar bin Madi, "School Policy and Teacher Competency to Prepare Literacy Teaching Materials for Early Children Based on Local Stories," *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 5, no. 2 (11 Maret 2024): 173–84, <https://doi.org/10.31538/munaddhomah.v5i2.985>.

teacher books and student books are flexible to be developed by teachers.³⁶ In science teaching, Wulandari & Mudinillah focused on the need for integrative science teaching materials based on Islamic values.³⁷ Because, so far science teaching is still dichotomized, so there needs to be continuity of teaching that refers to Islamic values sourced from the Qur'an. The manifestation of this teaching produces meaningful impressions and teachings to students.³⁸

This study has a distinction with previous studies, namely in the aspect of developing integrative science teaching materials based on the verses of the Qur'an implemented at the junior high school of Konawe Regency which is still using non-integrative textbooks with verses of the Qur'an. Uniquely, this study also began with the identification of problems during the teaching practice that the author did at the faculty of tarbiyah and educational sciences of IAIN Kendari, in order to analyze the needs of teachers in presenting learning. In addition, the effectiveness of the product is proven by significant results that are equivalent between the treatment in small group discussions and large groups using the integrated science teaching material product of the verses of the Qur'an.

The meaning of integrative science learning based on verses of the Qur'an is believed to be able to improve students' spiritual aspects.³⁹ Research by Mou concluded that the application of integrative science teaching materials to verses of the Qur'an significantly influences students' honest character and responsibility.⁴⁰ Muliastri & Handayani added that the purpose of implementing teaching based on the verses of the Qur'an is to develop students' spiritual attitudes.⁴¹ Of course, this is an effort to fulfill learning needs in the 21st century, namely, creating a continuity of student profiles with character, integrity, global insight, and skills in creation and innovation.

CONCLUSION

Based on the description above, it was found that the validation/assessment of science teaching materials integrated with the values of the Qur'an from material experts was obtained 92.58%, the assessment from language experts was 93.24%, media experts obtained 92.57%, product presentation obtained 91.08%. The overall score of validation values by

³⁶ Heni Lestari, "Efektifitas bahan ajar flipbook IPA berbantuan articulate storyline 3 pada siswa kelas VI di kecamatan pecangaan," *COLLASE (Creative of Learning Students Elementary Education)* 6, no. 2 (30 Maret 2023): 308–18, <https://doi.org/10.22460/collase.v6i2.12752>.

³⁷ Tri Wulandari dan Adam Mudinillah, "Efektivitas Penggunaan Aplikasi CANVA sebagai Media Pembelajaran IPA MI/SD," *Jurnal Riset Madrasah Ibtidaiyah (JURMLA)* 2, no. 1 (2 Februari 2022): 102–18, <https://doi.org/10.32665/jurmia.v2i1.245>; Khasanah dkk., "Development of STEAM-Based Video Learning Media for Early Childhood Education with the Inclusion of Religious and Moral Values," *Tafkir: Interdisciplinary Journal of Islamic Education* 5, no. 1 (27 Februari 2024): 136–52, <https://doi.org/10.31538/tijic.v5i1.717>.

³⁸ Salman Faris, "Exploring The Divine Message: Quranic Studies in The Context of Islamic Scholarship," *Dirasah International Journal of Islamic Studies* 1, no. 2 (31 Oktober 2023): 111–25, <https://doi.org/10.59373/drs.v1i2.16>.

³⁹ Muammar Bakry dkk., "Reflections of Contemporary Islamic Law to The Spirit Doll Phenomenon; A Sadd Al-Zari'ah Perspective," *Samarah: Jurnal Hukum Keluarga Dan Hukum Islam* 6, no. 1 (13 Juni 2022): 20–35, <https://doi.org/10.22373/sjhk.v6i1.12974>.

⁴⁰ Tsai-Yun Mou, "Science Learning with Designed Animation: Investigation of Primary School Children's Attitudes toward Science Learning, Animation Integration, and Understanding Level," *International Journal of Educational Research Open* 4 (2023): 100246, <https://doi.org/10.1016/j.ijedro.2023.100246>.

⁴¹ Bujuri dan Baiti, "Pengembangan Bahan Ajar IPA Integratif Berbasis Pendekatan Kontekstual."

experts is 81.28% $<P \leq 100\%$, which means that the teaching materials developed are valid and very suitable for use as science teaching materials for Learning science materials at MTsN Konawe Regency. Furthermore, the data on students' religious attitudes in the small group trial sample obtained an average pretest value of 50.67 and a posttest of 75.33, while in the large group, the average pretest value was 54.67 and a posttest of 79.33. Data on the average value of students' religious attitudes in small and large groups before being tested for hypotheses were first tested for analysis requirements, namely, normality and homogeneity.

The results of the assumption test for all groups of data obtained were normally distributed and homogeneous. Furthermore, hypothesis testing (paired t-test) was carried out for the data on the average pretest-posttest values of religious attitudes in the small group, the probability value (ρ) Sig. = 0.000 $<\alpha = 0.05$ and/or the calculated t value = 16.856 $> t$ table = 2.179 at the level of $\alpha = 0.05$. For the data on the average value of students' religious attitudes in the large (wider) group, the probability value (ρ) Sig. = 0.000 $<\alpha = 0.05$ and/or the calculated t value = 25.095 $> t$ table = 2.069 at the level of $\alpha = 0.05$. This shows a significant difference in students' spiritual attitudes between before and after treatment using science teaching materials integrated with the Qur'an. Thus, the research product in the form of teaching materials can be used as a reference to apply the results of this study in schools/madrasahs based on the values of the Qur'an. However, there are limitations from the locus aspect (at MTsN Konawe Regency), so it is necessary to expand the study to other educational institutions. In addition, in the focus aspect, the next research can identify the need for integrative teaching materials based on character in the content of Pancasila values.

REFERENCES

- Abdullah, M. Amin. "Religion, Science, and Culture: An Integrated, Interconnected Paradigm of Science." *Al-Jami'ab: Journal of Islamic Studies* 52, no. 1 (8 Juni 2014): 175–203. <https://doi.org/10.14421/ajis.2014.521.175-203>.
- Adwiah, Amalia Rabiatul, Aulia Faraz Tantia, dan Intan Asyikin Rantikasari. "Implementation of Storytelling Method with Folktales in Instilling Character Values in Children: A Study at ABA Warungboto Kindergarten." *Golden Age: Jurnal Ilmiah Tumbuh Kembang Anak Usia Dini* 8, no. 1 (31 Maret 2023): 47–57. <https://doi.org/10.14421/jga.2023.81-05>.
- Affandi, Muhammad Rayhan, Maryscha Widyawati, dan Yoga Budi Bhakti. "Analisis Efektivitas Media Pembelajaran E-Learning Dalam Meningkatkan Hasil Belajar Siswa Sma Pada Pelajaran Fisika." *JPF (Jurnal Pendidikan Fisika) FKIP UM Metro* 8, no. 2 (30 September 2020): 150–57. <https://doi.org/10.24127/jpf.v8i2.2910>.
- Akrim, A., Hasrian Rudi Setiawan, Selamat Selamat, dan Nurman Ginting. "Transformation of Islamic Education Curriculum Development Policy in the National Education System." *Cypriot Journal of Educational Sciences* 17, no. 7 (2022): 2538–52.
- Alkouatli, Claire. "Pedagogies in Becoming Muslim: Contemporary Insights from Islamic Traditions on Teaching, Learning, and Developing." *Religions* 9, no. 11 (November 2018): 1–18. <https://doi.org/10.3390/rel9110367>.

- Al-Rabaani, Ahmed Hamad. "Views of Omani Post-Basic Education Students about Religious and Cultural Tolerance." *Cambridge Journal of Education* 48, no. 1 (2 Januari 2018): 87–101. <https://doi.org/10.1080/0305764X.2016.1252314>.
- Alugar, Ritchelee. "Experiences of Millennial Teachers in the Academe: A Phenomenological Inquiry." *International Journal of Education, Technology and Science* 1, no. 4 (30 November 2021): 119–31.
- Álvarez, Ronald Pérez, Ioana Jivet, Mar Pérez-Sanagustín, Maren Scheffel, dan Katrien Verbert. "Tools Designed to Support Self-Regulated Learning in Online Learning Environments: A Systematic Review." *IEEE Transactions on Learning Technologies* 15, no. 4 (Agustus 2022): 508–22. <https://doi.org/10.1109/TLT.2022.3193271>.
- Arbie, Rosijanih, Ratna Puspitasari, Sadieli Telaumbanua, B. M. A. S. Anaconda Bangkara, dan Khasanah Khasanah. "Student's Understanding of Islamic Religion Course Material With a Basic Semiotics Approach to Improve Reading Skills." *Tafkir: Interdisciplinary Journal of Islamic Education* 4, no. 2 (13 Juni 2023): 224–40. <https://doi.org/10.31538/tijie.v4i2.362>.
- Aseery, Ahmad. "Enhancing Learners' Motivation and Engagement in Religious Education Classes at Elementary Levels." *British Journal of Religious Education* 46, no. 1 (2 Januari 2024): 43–58. <https://doi.org/10.1080/01416200.2023.2256487>.
- Asmawati, Luluk. "The Development of Puzzle Games for Early Childhood Based on the Banten Local Culture." *Jurnal Ilmiah Peuradeun* 11, no. 2 (30 Mei 2023): 531–50. <https://doi.org/10.26811/peuradeun.v11i2.895>.
- Aziz, Mursal, Zulkipli Nasution, M. Syukri Azwar Lubis, Suhardi, dan Muhammad Rifai Harahap. "Tahfidzul Qur'an Curriculum Media Innovation in Islamic Boarding Schools." *Tafkir: Interdisciplinary Journal of Islamic Education* 5, no. 2 (2 April 2024): 235–49. <https://doi.org/10.31538/tijie.v5i2.970>.
- Azizi, Mohammad Reza, Rasha Atlasi, Arash Ziapour, Jaffar Abbas, dan Roya Naemi. "Innovative Human Resource Management Strategies during the COVID-19 Pandemic: A Systematic Narrative Review Approach." *Heliyon* 7, no. 6 (1 Juni 2021): e07233. <https://doi.org/10.1016/j.heliyon.2021.e07233>.
- B, Ahmad Mukhtar, Ni Luh Kardini, Aria Elshifa, Susi Adiwaty, dan Tri Cicik Wijayanti. "The Role of Quality Human Resources in Developing Missions of Future Universities in Indonesian Higher Education." *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 4, no. 1 (14 Februari 2023): 49–59. <https://doi.org/10.31538/munaddhomah.v4i1.342>.
- Bakar, Muhammad Abu, Khidriyah Amimatul Umroh, dan Fatima Hameed. "Improving Quality Islamic Education for Today's Generation." *At-Tadzkir: Islamic Education Journal* 2, no. 2 (26 Agustus 2023): 118–28. <https://doi.org/10.59373/attadzkir.v2i2.42>.
- Bakry, Muammar, M. Ilham, Achmad Musyahid, Chaerul Mundzir, dan Arif Rahman Ramli. "Reflections of Contemporary Islamic Law to The Spirit Doll Phenomenon; A Sadd Al-Zar'ah Perspective." *Samarah: Jurnal Hukum Keluarga Dan Hukum Islam* 6, no. 1 (13 Juni 2022): 20–35. <https://doi.org/10.22373/sjkh.v6i1.12974>.

- Basri, Hasan, dan Alamin Abdullah. "Curriculum Integration Constructs in Integrated Islamic Elementary School." *Tafkir: Interdisciplinary Journal of Islamic Education* 5, no. 1 (6 Februari 2024): 79–99. <https://doi.org/10.31538/tijie.v5i1.873>.
- Borg, Walter R., dan Meredith D. Gall. *Educational Research: An Introduction*. Longman, 1983.
- Bujuri, Dian Andesta, dan Masnun Baiti. "Pengembangan Bahan Ajar IPA Integratif Berbasis Pendekatan Kontekstual." *Terampil: Jurnal Pendidikan dan Pembelajaran Dasar* 5, no. 2 (8 Februari 2019): 184–97. <https://doi.org/10.24042/terampil.v5i2.3173>.
- Chang, Ethan. "Beyond Workforce Preparation: Contested Visions of 'Twenty-First Century' Education Reform." *Discourse: Studies in the Cultural Politics of Education* 40, no. 1 (2 Januari 2019): 29–45. <https://doi.org/10.1080/01596306.2018.1549702>.
- Crawford, Lindsay K., Kimberly Arellano Carmona, dan Rewanshi Kumar. "Examining the Impact of Project-Based Learning on Students' Self-Reported and Actual Learning Outcomes." *Pedagogy in Health Promotion*, 13 Maret 2024, 23733799241234065. <https://doi.org/10.1177/23733799241234065>.
- Faizah, Nivia Okta, I. Gde Wawan Sudatha, dan Alexander Hamonangan Simamora. "Pengembangan Multimedia Pembelajaran IPA Untuk Meningkatkan Hasil Belajar." *Journal of Education Technology* 4, no. 1 (10 Maret 2020): 52–58. <https://doi.org/10.23887/jet.v4i1.24091>.
- Faizah, Silviana Nur, Lia Nur Atiqoh Bela Dina, Ari Kartiko, Muhammad Anas Ma'arif, dan Moch Sya'roni Hasan. "Student Acceptance Study of PhET Simulation with an Expanded Technology Acceptance Model Approach." *Journal of Applied Engineering and Technological Science (JAETS)* 5, no. 1 (10 Desember 2023): 279–90. <https://doi.org/10.37385/jaets.v5i1.3041>.
- Faris, Salman. "Exploring The Divine Message: Quranic Studies in The Context of Islamic Scholarship." *Dirasah International Journal of Islamic Studies* 1, no. 2 (31 Oktober 2023): 111–25. <https://doi.org/10.59373/drs.v1i2.16>.
- Fawns, Tim. "An Entangled Pedagogy: Looking Beyond the Pedagogy—Technology Dichotomy." *Postdigital Science and Education* 4, no. 3 (1 Oktober 2022): 711–28. <https://doi.org/10.1007/s42438-022-00302-7>.
- Firdaus, Muhammad Aditya, Moh Yusup Saepuluh Jamal, dan Bambang Samsul Arifin. "Improving Student Learning Outcomes Through Project-Based Learning in Islamic Religion Lessons." *Tafkir: Interdisciplinary Journal of Islamic Education* 4, no. 2 (13 Juni 2023): 241–54. <https://doi.org/10.31538/tijie.v4i2.400>.
- Fitriani, Nisa, Syamsul Anam, dan Asep Maulana. "Building Literacy of Early Age Students' Language; Teacher Managerial Competence and Legal-Rational Authority of Boarding School Leaders." *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 5, no. 1 (2024): 41–50. <https://doi.org/10.31538/munaddhomah.v5i1.707>.
- Fu'adah, Aufi Azmi, Nikmatus Sholihah, dan Masthuroh Masthuroh. "Pengelolaan Arsip Dalam Menunjang Layanan Informasi Pada Bagian Tata Usaha Di Madrasah Aliyah Negeri." *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 3, no. 1 (23 Juni 2022): 57–69. <https://doi.org/10.31538/munaddhomah.v3i1.113>.
- Hamzah, Rohana, Ahmad Muhaimin Mohamad, Fatmawati Latada, Anita Abdul Rani, Nur Athiroh Masyaa'il Tan Abdullah, Christina Andin Abdullah, dan Zarina Mohd Ali.

- “Introduction to Spiritual Intelligence for Non-Muslim Students at a Higher Learning Institution.” *Jurnal Ilmiah Peuradeun* 12, no. 2 (30 Mei 2024): 831–54. <https://doi.org/10.26811/peuradeun.v12i2.1000>.
- Haq, Endun Abdul, Iim Wasliman, R. Supyan Sauri, Faiz Karim Fatkhullah, dan Ahmad Khori. “Management of Character Education Based on Local Wisdom.” *Nidbomul Haq: Jurnal Manajemen Pendidikan Islam* 7, no. 1 (24 Maret 2022): 73–91. <https://doi.org/10.31538/ndh.v7i1.1998>.
- Hariato, Gp, Rusijiono Rusijiono, Siti Masitoh, dan Wh Setyawan. “Collaborative-Cooperative Learning Model to Improve Theology Students’ Characters: Is It Effective?” *Jurnal Cakrawala Pendidikan* 39, no. 2 (19 Juni 2020): 409–21. <https://doi.org/10.21831/cp.v39i2.31272>.
- Hasneli, Hasneli, Meirison Meirison, dan Qasem Muhammadi. “Educational Renewal During Muhammad Ali Period and Its Impact on The Al-Azhar Educational Institution.” *Tafkir: Interdisciplinary Journal of Islamic Education* 5, no. 1 (14 Januari 2024): 27–40. <https://doi.org/10.31538/tijie.v5i1.687>.
- Herbstrith, Julie C., Sarah Kuperus, Kathleen Dingle, dan Zachary C. Roth. “Religion in the Public Schools: An Examination of School Personnel Knowledge of the Law and Attitudes toward Religious Expression.” *Research in Education* 106, no. 1 (Mei 2020): 77–97. <https://doi.org/10.1177/0034523718821705>.
- Huang, Shih-Yuan, Yi-Han Kuo, dan Hsueh-Chih Chen. “Applying digital escape rooms infused with science teaching in elementary school: Learning performance, learning motivation, and problem-solving ability.” *Thinking Skills and Creativity* 37 (1 September 2020): 100681. <https://doi.org/10.1016/j.tsc.2020.100681>.
- Huda, Miftachul, Muhamad Arif, Mohamad Marzuqi Abdul Rahim, dan Muhammad Anshari. “Islamic Religious Education Learning Media in the Technology Era: A Systematic Literature Review.” *At-Tadzkir: Islamic Education Journal* 3, no. 2 (7 Juni 2024): 83–102. <https://doi.org/10.59373/attadzkir.v3i2.62>.
- Kartiko, Ari, Guntur Arie Wibowo, Lisda Van Gobel, Adi Wijayanto, dan Nanda Saputra. “Improving Teacher Job Satisfaction Through Organizational Commitment and Organizational Citizenship Behavior in The Digitalization Era.” *Nidbomul Haq: Jurnal Manajemen Pendidikan Islam* 8, no. 2 (15 Oktober 2023): 315–27. <https://doi.org/10.31538/ndh.v8i2.3960>.
- Khasanah, Agita Violy, Eka Yunita Yustantina, dan Moh Fahri Yasin. “Development of STEAM-Based Video Learning Media for Early Childhood Education with the Inclusion of Religious and Moral Values.” *Tafkir: Interdisciplinary Journal of Islamic Education* 5, no. 1 (27 Februari 2024): 136–52. <https://doi.org/10.31538/tijie.v5i1.717>.
- Khusaini, Muhammad, Hariri Hariri, M. Ridho Pratama, dan Madah Rahmatan. “Creating a Harmonious Family Through Social Media Facebook in West Lampung.” *El-Mashlahab* 12, no. 2 (31 Desember 2022): 139–52. <https://doi.org/10.23971/el-mashlahab.v12i2.3937>.
- Kristjánsson, Kristján, Blaine Fowers, Catherine Darnell, dan David Pollard. “Phronesis (Practical Wisdom) as a Type of Contextual Integrative Thinking.” *Review of General*

- Psychology* 25, no. 3 (1 September 2021): 239–57. <https://doi.org/10.1177/10892680211023063>.
- Krok, Dariusz. “Examining the Role of Religion in a Family Setting: Religious Attitudes and Quality of Life among Parents and Their Adolescent Children.” *Journal of Family Studies* 24, no. 3 (2 September 2018): 203–18. <https://doi.org/10.1080/13229400.2016.1176589>.
- Kustati, Martin, Muhammad Kosim, Sermal Sermal, Suryadi Fajri, dan Suci Ramadhanti Febriani. “The Model for Maintaining Families with Noble Character During the Pandemic in Kampung KB Villages.” *Jurnal Ilmiah Peuradeun* 12, no. 1 (30 Januari 2024): 1–26. <https://doi.org/10.26811/peuradeun.v12i1.1126>.
- Lestari, Heni. “Efektifitas bahan ajar flipbook IPA berbantuan articulate storyline 3 pada siswa kelas VI di kecamatan pecangaan.” *COLLASE (Creative of Learning Students Elementary Education)* 6, no. 2 (30 Maret 2023): 308–18. <https://doi.org/10.22460/collase.v6i2.12752>.
- Maryani, I., N. N. Husna, M. N. Wangid, A. Mustadi, dan R. Vahechart. “Learning Difficulties of the 5th Grade Elementary School Students in Learning Human and Animal Body Organs.” *Jurnal Pendidikan IPA Indonesia* 7, no. 1 (3 April 2018): 96–105. <https://doi.org/10.15294/jpii.v7i1.11269>.
- Masturin, Masturin. “Development of Islamic Religious Education Materials Based on Religious Moderation in Forming Student Character.” *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 3, no. 4 (2022): 346–55. <https://doi.org/10.31538/munaddhomah.v3i4.310>.
- Mas’udi, Mas’udi, dan Muflihah Muflihah. “Islamic Boarding School as an Ecosystem for Religious Moderation Education in The Madura Society.” *Edukasia: Jurnal Penelitian Pendidikan Islam* 18, no. 2 (29 April 2024): 145–62. <https://doi.org/10.21043/edukasia.v18i2.22679>.
- Milles, Lennart Steffen, Tanja Hitzblech, Simon Drees, Wiebke Wurl, Peter Arends, dan Harm Peters. “Student engagement in medical education: A mixed-method study on medical students as module co-directors in curriculum development.” *Medical Teacher* 41, no. 10 (3 Oktober 2019): 1143–50. <https://doi.org/10.1080/0142159X.2019.1623385>.
- Mou, Tsai-Yun. “Science Learning with Designed Animation: Investigation of Primary School Children’s Attitudes toward Science Learning, Animation Integration, and Understanding Level.” *International Journal of Educational Research Open* 4 (2023): 100246. <https://doi.org/10.1016/j.ijedro.2023.100246>.
- Mulawarman, Widyatmike Gede, Kundori Kundori, Munir Tubagus, Loso Judijanto, dan Made Susilawati. “Character Education Management in Improving Students’ Spiritual Intelligence.” *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam* 9, no. 1 (4 Maret 2024): 79–90. <https://doi.org/10.31538/ndh.v9i1.4550>.
- Nadif, Achmad, Juli Amaliya Nusucha, dan Ainur Rofiq. “The Concept of Soft Skills Teacher Islamic Education Studies The Book ‘Izāt Al-Nasyi’in By Sheikh Musthafa Al Ghalayani.” *Dirasah International Journal of Islamic Studies* 1, no. 2 (29 Oktober 2023): 102–10. <https://doi.org/10.59373/drs.v1i2.20>.

- Nuphanudin, Nuphanudin, Lina Herlina, Mutia Alviena Sari, Aan Komariah, Atika Mei Fani Siregar, dan Muhammad Kristiawan. "Using Mobile Technology in Student Learning and Advanced Thinking Skills." *Tafkir: Interdisciplinary Journal of Islamic Education* 4, no. 3 (9 September 2023): 473–85. <https://doi.org/10.31538/tijie.v4i3.493>.
- Nuriman, Nuriman, Essra Mahmoud, Aswati Bt Hamzah, dan Yusnaini Yusnaini. "A Study of Embracing Adolescent Islamic Moral Values at Two Schools in Rural Area." *Jurnal Ilmiah Peuradeun* 12, no. 1 (30 Januari 2024): 117–36. <https://doi.org/10.26811/peuradeun.v12i1.1045>.
- Rofiq, Ainur, Khoirun Nisa, dan Abdul Muid. "Innovation of Storytelling and Role-Playing Methods in Islamic Religious Education Learning." *At-Tadzkiir: Islamic Education Journal* 3, no. 1 (4 Maret 2024): 47–58. <https://doi.org/10.59373/attadzkiir.v3i1.52>.
- Ruhtiani, Maya, Tri Lisiani Prihatinah, Sulistyandari Sulistyandari, Hyun Kyung Park, dan Yayuk Whindari. "Legal Protection of Architectural Works as Copyright: An Epistemological and Islamic Law Perspective." *El-Mashlahah* 14, no. 1 (7 Juni 2024): 43–70. <https://doi.org/10.23971/el-mashlahah.v14i1.7645>.
- Saada, Najwan. "Educating for Global Citizenship in Religious Education: Islamic Perspective." *International Journal of Educational Development* 103 (November 2023): 102894. <https://doi.org/10.1016/j.ijedudev.2023.102894>.
- Saiin, Asrizal, Firdaus Firdaus, Maulana Yusuf, Supani Supani, Muchimah Muchimah, dan Anwar M. Radiamoda. "Walking Together: Dynamics of Muslim Wives Dual Role in Rural Areas Pursuing Career and Household Responsibilities." *El-Mashlahah* 14, no. 1 (30 Juni 2024): 127–48. <https://doi.org/10.23971/el-mashlahah.v14i1.7827>.
- Sholihah, Maidahtus, Cholil, dan Yusria Ningsih. "Qur'anic Counseling with Motivational Guidance QS. Al-Baqarah Verses 155-156, in Overcoming Anxiety in One of the Students." *Dirasah International Journal of Islamic Studies* 2, no. 1 (18 Juni 2024): 87–95. <https://doi.org/10.59373/drs.v2i1.32>.
- Stieff, Mike. "Improving Learning Outcomes in Secondary Chemistry with Visualization-Supported Inquiry Activities." *Journal of Chemical Education* 96, no. 7 (9 Juli 2019): 1300–1307. <https://doi.org/10.1021/acs.jchemed.9b00205>.
- Suyadi, Zalik Nuryana, Sutrisno, dan Baidi. "Academic Reform and Sustainability of Islamic Higher Education in Indonesia." *International Journal of Educational Development* 89 (1 Maret 2022): 102534. <https://doi.org/10.1016/j.ijedudev.2021.102534>.
- Tri Wulandari dan Adam Mudinillah. "Efektivitas Penggunaan Aplikasi CANVA sebagai Media Pembelajaran IPA MI/SD." *Jurnal Riset Madrasah Ibtidaiyah (JURMLA)* 2, no. 1 (2 Februari 2022): 102–18. <https://doi.org/10.32665/jurmia.v2i1.245>.
- Yakin, Wilda Fitriah, Maskud, dan Faisol Nasar bin Madi. "School Policy and Teacher Competency to Prepare Literacy Teaching Materials for Early Children Based on Local Stories." *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 5, no. 2 (11 Maret 2024): 173–84. <https://doi.org/10.31538/munaddhomah.v5i2.985>.
- Yulianengsih, Neng Lia. "Teacher Creativity in Classroom Management to Improve Students' Learning Ability." *Attadrib: Jurnal Pendidikan Guru Madrasah Ibtidaiyah* 6, no. 1 (1 April 2023): 57–66. <https://doi.org/10.54069/attadrib.v6i1.383>.