

From Implicit Values to Qur'anic Integration: Rethinking Islamic Science a through Elementary IPAS Textbooks

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Abstract

The integration of science with Islamic values in science learning is important for developing scientific literacy and spiritual awareness of students in elementary school. This study goals to analyze how Islamic values are integrated into content of natural and social sciences textbooks in elementary schools and to identify the potential for integrating from the Qur'an into science content. Qualitative content analysis approach was used to textbooks for grades III–VI published by the Indonesian government. The analysis was conducted through the stages of unitizing, reading and familiarization, data coding, category development, and data interpretation with the categories of explicit, implicit, and unintegrated integration. The analysis revealed a predominantly implicit pattern of religious integration, while explicit Qur'anic integration was entirely absent across the analyzed IPAS textbooks. Implicit integration was concentrated on environmental responsibility and moral values, whereas dimensions of tawhid and Qur'anic reflection on natural phenomena were largely absent. he analysis further revealed an integration gap between science topics with potential for Qur'anic reflection and their actual representation

in the textbooks, particularly concerning tawhid, ayat kauniyah, and the human role as khalifah. Based on these findings, the study proposes a Qur'anic integration mapping that connects selected IPAS concepts with relevant spiritual, ethical, and environmental values. This mapping provides a basis for developing more systematic and contextually relevant Islamic-integrated IPAS textbooks for elementary education.

Keywords: integrated Science Learning, Al-Qur'an, Natural dan Social Science Textbook

A. Introduction

Latjompoh et al. (2025), Leli et al. (2021), dan AY & PINGOV (2022) examined the effect of integrated approach between science learning with spiritual values in learning process to build students' character and literacy skills. Research by Jasmi et al. (2022) indicated the integration of science and Islamic values in the science instruction has influence not only on cognitive aspect but also in of spiritual and moral awareness. Science learning as a product of facts, concepts, laws, and natural phenomena available to integrated with the Qur'an and Sunnah. Science as an attitude foster character about *tafakkur*, *tadabbur*, gratitude, *ibrah*, *ma'rifatullah*, and *amanah*. Therefore, the integration of science with the Qur'an encourages students to understand scientific concepts while internalizing spiritual, ethical, and environmental aspects as well as gratitude for the gifts and power of Allah SWT (Mohammed et al., 2021; Muslih et al., 2024). This supporting the Law No. 20 of 2003 about the national education system in Indonesia, which mandates the effort and implementation of a national education system that enhances faith and piety towards God Almighty. This leads to a review of the integration of Islamic values in science learning, especially at the primary school/MI level.

Research Muslih et al. (2024) explains that the integration of science and the Qur'an is not only spiritual enrichment, but also forms a revelation-based scientific paradigm that requires reinforcement through interdisciplinary research. Therefore, Mohammed et al. (2021) indicated the importance of reconstructing the science and technology curriculum in assimilating the worldview of the Qur'an in order to overcome the dichotomy of knowledge and the character of students who develop cognitively, spiritually, socially, and ethically. One of the steps to assimilate the values of the Qur'an into the national curriculum potentially realized and disseminated through textbooks.

According to Batič & Lebar Kac (2020) books conceivably analyzed in terms of content since it fixed content and available to distributed massively. For this reason, that systematic analysis through content analysis approaches potentially beneficial. This is different with learning methods, techniques, learning strategies, learning design, learning approaches, or other teacher roles that are tentative in depend on teacher abilities and conditions. Textbooks not only present scientific knowledge, but also implicitly convey values, worldviews, and epistemological perspectives that build students' understanding of science concept. Research on the review of elementary school science textbooks has been conducted on aspects several aspects such as science literacy (Aini et al., 2021),

creative thinking (Okdiansyah et al., 2024), self-regulated learning (Lorenza et al., 2024) or strengthening religious beliefs (Annisa et al., 2024).

Although previous studies have emphasized the importance of integrating science learning with Islamic values, existing research has predominantly focused on learning processes, instructional approaches, curriculum development, or the effects of integration on students' cognitive, spiritual, and character outcomes. Less attention has been given to the representation of Islamic values within the textbooks that systematically mediate science knowledge to elementary school students. In particular, previous textbook studies have generally examined science literacy, creative thinking, self-regulated learning, or religious dimensions separately, rather than examining the level, type, and potential of Qur'anic integration within IPAS content.

Although previous studies have emphasized the importance of integrating science learning with Islamic values, existing research has predominantly examined this integration at the level of teaching practice, instructional approaches, or its effects on students' cognitive, spiritual, and character outcomes. Textbook-focused studies, meanwhile, have examined science literacy, creative thinking, self-regulated learning, or religious dimensions separately, rather than examining the level, type, and potential of Qur'anic integration within IPAS content specifically. This gap is significant because textbooks, unlike teaching practices that vary with individual teacher ability, are fixed, standardized, and widely distributed, making them a more reliable indicator of the values systematically conveyed to students (Batič & Lebar Kac, 2020). To date, no study has examined the presence of Islamic values, particularly Qur'anic values, in IPAS textbooks under curriculum Merdeka; without such analysis, claims about the feasibility of Qur'anic integration in science education remain untested against the material students actually use.

This issue is significant because, without examining the content of the textbooks, the feasibility of integrating the Qur'an into science education cannot be evaluated against the actual learning materials used by students. Moreover, systematic content analysis can help identify science topics that already reflect Islamic values as well as those that have not yet accommodated such perspectives. Accordingly, this study addresses three main questions: what types of Islamic values are represented in elementary school IPAS textbooks and at what level they are integrated; what gaps exist between the science content presented in the textbooks and its potential for Qur'anic integration; and which IPAS topics offer the strongest opportunities for further integration of Qur'anic perspectives and Islamic values.

B. Research Methods

1. Research Design

Qualitative content analysis has been conducted to analyze the integration of Islamic values in Natural and Social Sciences (IPAS) textbooks at the primary school level. Content analysis is the process of systematically examining the meaning in texts, illustrations, and learning activities in textbooks. Content analysis approach highlights the systematic development of analysis categories to interpret meaning in texts, the determination of analysis units, the coding process, and drawing inferences from text data (Krippendorff, 2019; Mayring, 2015, 2022).

2. Data Sources and Textbook Selection

IPAS textbooks for grades III, IV, V, and VI used in the government-issued Merdeka Curriculum is stored in the database <https://buku.kemendikdasmen.go.id/katalog> in PDF format, for grades 3rd until 6th or phases B & C, subject IPAS, type of book for students with a choice of revised editions like in figure 1. We reviewed four books, starting from the main material (chapters and subchapters), narration, illustrations or pictures, exercises, learning activities, and learning reflection. These sections were analyzed to identify the existence or potential integration of Islamic values in science material. To support this process, Islamic values were grasp from relevant verses of the Qur'an using supporting literature such as the book *Science with the Qur'an* by Dr. Nadiah Thayyarah and *Scientific Wonders on Earth & in Space* by Yusuf Al-Hajj Ahmad.



Figure 1. IPAS Book of Elementary School in 3rd ,4th,5th, dan 6th grades.

3. Unit of Analysis

The unit of analysis was defined as a meaningful textual, visual, or instructional unit that could be interpreted independently in relation to Islamic values or Qur'anic integration. This definition was used to avoid restricting the analysis to sentences or paragraphs because Islamic meanings in elementary textbooks may also be communicated through illustrations, learning activities, questions, and reflection sections. A total of 105 units were identified across the four textbooks. A unit was selected for detailed coding when it contained an identifiable Islamic value, an explicit religious reference, or a science concept that provided a meaningful opportunity for Qur'anic reflection. Each selected unit was

recorded together with its grade, chapter, topic, page number, scientific concept, and supporting textual or visual evidence.

4. Coding Framework

Data analysis was conducted through qualitative content analysis stages by adapting Mayring (2015) steps and systematic analysis procedures (Krippendorff, 2019). We categorized the data obtained into three types such as explicit integration in the content of direct references to verses from the Qur'an related to the concept of science; implicit integration in the shape of Islamic values reflected indirectly through concepts such as *tadabbur alam* (contemplation of nature), gratitude for God, or responsibility for the environment, and non-integrated, which uncover any connection with Islamic values nevertheless has the potential to be integrated. The stages of analysis in this study include unitizing, Reading and familiarization, coding the data, category development, and data interpretation.

5. Quality Assurance and Trust worhiness

To enhance the credibility and transparency of the analysis, four quality assurance procedures were employed: expert review, pilot coding, inter-coder reliability assessment, and an audit trail. The coding framework and operational definitions were reviewed by experts in science and Islamic education and refined based on their feedback. Pilot coding was then conducted to identify ambiguous categories and ensure consistent application across textual, visual, and instructional content. For inter-coder reliability, the primary researcher coded all 105 units, after which a stratified sample of 21 units (20%) was independently coded by a second coder who was blind to the initial classifications. The sample included three implicit-integration units and 18 non-integrated units across grade levels to avoid overrepresentation of the dominant category. The coding decisions of both coders were then compared to calculate the percentage of absolute agreement.

The percentage of absolute agreement was calculated using the formula:

$$Agreement = \left(\frac{Number\ of\ Agreed\ Pairs}{Total\ Number\ of\ Pairs} \right) \times 100\%$$

The results showed that 18 pairs were identical (both coders assigned the same category) and 3 pairs differed, yielding an absolute agreement percentage of 85.7%. The raw data for this calculation are presented below:

Table 1. Raw Data

Description	Number
Total analysis units across all textbooks	105 units

Sample coded by both coders (20% of total)	21 units
Coding pairs compared	21 pairs
Identical coding pairs	18 pairs
Different coding pairs	3 pairs
Absolute Agreement Percentage	$(18/21) \times 100\% = 85.7\%$

According to established standards in qualitative content analysis, inter-coder reliability values between 80% and 90% are considered acceptable (Nili et al., 2020). Thus, the value of 85.7% indicates that the coding framework was sufficiently clear and could be applied consistently by different researchers. The 3 differing pairs were subsequently discussed until consensus was reached, and the coding framework was refined accordingly. This process ensured the consistency of coding decisions across coders.

C. Result and Discussion

From the analysis of the four textbooks, nine units were found to contain Islamic value integration, all of which fell into the implicit integration category. No explicit references to Qur'anic verses or hadith were identified. The nine findings were distributed as follows: two findings in grade 3 (both related to the theme of the human body as a divine gift), four findings in grade 4 (one related to energy and three related to cultural diversity and local wisdom), and three findings in grade 5 (related to historical heritage, water as a source of life, and changes during puberty). For grade 6, no integration of Islamic values was identified across its six chapters, which covered topics such as nutrition, respiration, national heroes, local wisdom, renewable energy, and the solar system.

Table 2. Integration Science with Al-Qur'an in IPAS Textbooks 3rd until 6th

Grade	Theme	Integration form	Code	Contexts
3	Keajaiban Tubuhku/ The Wonders of My Body	Implisit page 23	C1	<i>"Tuhan tidak hanya membuat bentuknya indah, tetapi menganugerahkan fungsi yang sangat unik untuk membantu kita mengenal dunia"</i>
		Implisit page 27	C2	<i>"Tubuh kita adalah anugerah dari Tuhan yang patut disyukuri"</i>
4	Mengubah Bentuk Energi/ Transforming Energy	Implisit page 15	C3	<i>"Tuhan menciptakan bumi kita dengan banyak energi di alamnya."</i>
	Keragaman Budaya dan	Implisit page 137	C4	<i>"Keraton Yogyakarta menyediakan tujuh gunung berapi hasil bumi sebagai simbol"</i>

	Kearifan Lokal/ Cultural Diversity and Local Wisdom			<i>sedekah raja kepada rakyatnya sekaligus wujud rasa syukur kepada Tuhan.”</i>
		Implisit page 138	C5	<i>“Ini adalah salah satu contoh keragaman budaya yang patut kita syukuri.”</i>
		Implisit page 144	C6	<i>“Perayaan ini sebagai bentuk dari rasa syukur atas proses panen”</i>
5	Di mana Indonesia Berada/ Where Indonesia	Implisit page 91	C7	<i>“Salah satunya menghadirkan keragaman cara untuk mensyukuri melimpahnya hasil bumi di darat dan di laut”</i>
	Air sumber kehidupan/ Water, the source of life.	Implisit page 98	C8	<i>“Sebagai bentuk rasa syukur atas panen yang melimpah”</i>
	Perubahan pada Diriku/ Changes in Myself	Implisit page 110	C9	<i>“Menyikapi puber dengan dekat dengan Tuhan”</i>
6	-	-		-

The results in table 1. of the analysis show that the integration of Islamic values in IPAS textbooks is still implicit and does not directly link scientific concepts to verses from the Qur'an or hadith. However, several quotations reflect the value of science as an attitude that fosters spiritual character. The values of *tafakkur* and *tadabbur* can be find in C1 & C3 are seen in the content on the wonders of the human body and energy in nature, which encourage students to reflect on God's creation through scientific observation. The value of *syukur* (gratitude) is available in (C2, C4, C6, C7, & C8) is the most dominant aspect, especially in content that emphasizes that the human body, the fruits of the earth, and cultural diversity are gifts from God that should be appreciated. In addition, *Ma'rifatullah* value in C1 & C9 that guiding students to know God through His creation and about human change, which invites students to learn from the process of growth. Therefore, *Ibrah* value from learning lessons from natural phenomena or life processes also uncover in C6 & C9. Meanwhile, the value of *amanah* in C4 & C7 is reflected in the wise use of natural resources and sharing with others.

These findings are consistent with previous studies showing that the integration of Islam and science in Indonesian education is often manifested through connecting scientific phenomena with religious values. Research at SDIT Al-Fityan Medan Nasution et al. (2023), for example, found that teachers integrated Islamic values into science learning by relating human growth and development to Qur'anic verses concerning human creation. Similarly, research

on science learning at MAN 3 Jakarta by Nurlaela (2025) showed that Qur'anic integration was implemented through scientific topics such as the creation of the universe, photosynthesis, the water cycle, and the structure of the Earth. These studies demonstrate that scientific phenomena can provide meaningful contexts for developing students' religious understanding. However, unlike these classroom-based studies, the present findings indicate that such integration is not systematically represented in the IPAS textbooks analyzed. Thus, the existence of potentially integrable scientific topics does not necessarily mean that the textbook itself provides explicit religious integration.

The finding that implicit integration (9 units) is far more common than explicit Qur'anic integration (0 units) is not just a number gap. It reflects how religious values are transmitted in these textbooks: through incidental phrases such as "patut disyukuri" or "anugerah dari Tuhan," rather than through deliberate, source referenced content. This pattern suggests that religious meaning in IPAS textbooks currently appears as a side effect of common Indonesian language habits, not as an intentional teaching strategy. This matters because implicit, incidental transmission is inconsistent across textbook units, while explicit integration, as shown by Kadir et al. (2024), requires deliberate design and produces measurable improvement in students' religious attitudes. The absence of explicit integration is therefore not simply an editorial gap. It represents a missed opportunity to apply an approach that has already been proven effective.

Among the six spiritual values found, gratitude (*syukur*) appeared most often (C2, C4, C6, C7, C8), while values that need stronger theological grounding, such as *tauhid* or *khalifah*, were almost absent, even though both are central to the Qur'anic view of nature (Mohammed et al., 2021; Muslih et al., 2024). This difference can be explained simply: gratitude can be expressed through general references to God without needing a specific verse, while *tauhid* and *khalifah* are precise concepts that risk becoming vague without direct Qur'anic reference. In other words, the implicit integration found in these textbooks mostly works at a surface, emotional level, evoking a general sense of the sacred, rather than at a deeper conceptual level where scientific ideas are explicitly framed within a Qur'anic worldview (Muslih et al., 2024). This adds nuance to Jasmi et al. (2022), who found that integrating science and the Qur'an strengthens spiritual awareness. This study suggests that in IPAS textbooks, that strengthening is still shallow and has not reached the deeper level that Muslih et al. (2024) and Mohammed et al. (2021) argue is needed to overcome the separation between religious and general knowledge. The Qur'anic perspective on science and technology places the strengthening of STEM as worship and the responsibility of caliphs in caring for the universe based on the oneness of Allah SWT. Yet none of these frameworks are currently reflected in the IPAS textbooks analyzed in this study, where explicit worship-oriented or *khalifah*-based framing was entirely absent (Table 1). This

indicates that while conceptual models for deeper integration already exist in the literature, they have not yet been operationalized into actual curriculum materials.

Table 3. Potential Content in IPAS Textbook According Literatures

Topic	Science Concept	Ayat Al-Qur'an	Science Concept	Ayat Al-Qur'an
3th Grade				
Keajaiban Tubuhku/ The Wonders of My Body	The Five Senses	An-Nahl 78	The wonders of creation	At-tin 4
	The Function of the Senses	Al-Mu'minun 78	The creation of organs	As-Sajdah 9
	Prohibition of Misusing the Senses	Al-isra' 36	Contemplating nature	Fussilat 53
Dahulu, Kini, dan Nanti/ Then, Now, and Later	The Origins of Nations	Al-Hujurat 13	The changing of seasons	Ali-Imran 140
	Maintaining Relationships	An-Nisa' 1	Learning from history	Yusuf 11
	Respecting Parents	Al-Isra' 23	Protecting the environment	Al-A'raf 56
	Changes Over Time	Ar-Ra'd 11	Preserving traditions	Luqman 15
Peduli dan Berbagi/ Caring and Sharing	Stages of Human Life	Ar-Rum 54	Doing good and having noble character	An-Nahl 30
	The Process of Human Creation and Development	Al-Hajj 5	Honouring one's parents	Al-Isra 23
	Responsibilities in the Family	At-Tahrim 6	Loving and Caring for One Another	Al-Balad 17
	Helping Each Other in Goodness	Al-Maidah 2	Charity and Sharing	Al-Baqarah: 261
Siklus Hidup yang Menakjubkan/ The Amazing Cycle of Life	The Life Cycle and Growth of Living Things	Ar-Rum 19 Al-Hajj 5	Nature Conservation	Al A'raf 56 Al Baqarah 205 Al Baqarah 22
	Life Cycle of Plants	Yasin 33 Al-An'am 99	Balance and God's Decree	Al Furqon 2
	Metamorphosis & Diversity of Animals	An-Nur 45 Al-Ankabut 41		
Bijak Berbelanja Kebutuhan/ Wise Shopping for Necessities	Prohibition of Wastefulness	Al-Isra 26-27	Wealth as a Trust	Al Hadid 7
	Being Modest in Spending Wealth	Al-Furqan 67	Prioritising Needs	Al Baqarah 219
	Saving Money	Yusuf 47-48		
Energi, sang Pemberi	The Sun as a Source of Energy	Yunus 5	Fire and Heat Energy	Yasin 80

Topic	Science Concept	Ayat Al-Qur'an	Science Concept	Ayat Al-Qur'an
Kekuatan/ Energy, the Power Source	Wind as a Source of Energy	Ar-Rum 48	Energy in the Body (Food)	Abasa 24-32
	Water as a Source of Life and Energy	Al-Anbiya 30	Lightning (Natural Electricity)	Ar-Ra'd 12
Jejak Penjelajah/ The Explorer's Path	The Sun as a Determinant of Direction	Yunus 5	Mountains as signs on earth	An-Nahl 15
	Regular Circulation of the Sun and Moon	Yasin 38-40	Earth as a place to explore	Al-Mulk 15
	Stars as directional guides	An-Nahl 16	Allah Creates Signs in the Heavens and on Earth	Al-Baqarah 164
Rahasia Tiga Wujud Zat/ The Secret of the Three States of Matter	Water as the Source of Life	Al-Anbiya 30	Freezing and Melting Water	An-Nur 43
	Rain and the Water Cycle	Az-Zumar 21	Fire and Heat Energy	Yasin 80
	Wind and Clouds	Ar-rum 48	Everything is Created with Measure and Purpose	Al-Qamar 49
	Mountains (Example of Solid Matter)	An-Nahl 15		
4th Grade				
Mengubah Bentuk Energi/ Transforming Energy	Wind Energy	Ar-Rum 48	Plants Produce Food	Abasa 24-32
	Water Energy	Az Zumar 21	The Process of Plant Life through Water and Light	Qaf 9-11
	Heat and Fire Energy	Yasin 80	Oxygen and Life	Al-Hijr 22
	Solar Energy	Yunus 5	Humans are Given the Ability to Manage Nature	Al-Jatsiyah 14
	Energy and the Regularity of Natural Laws	Al-Qamar 49		
Gaya di Sekitar Kita / Forces Around Us	Gravitational Force (Objects Falling Downwards)	Al-Hajj 65	The Use of Forces for Technology	Al-Jatsiyah 13
	The Regularity of Natural Laws	Al-Qamar 49		
Di Sini Tempat Tinggalku! / This Is Where I Live!	Earth to explore	Al-Mulk 15	The Sea and its Depths	Ar-Rahman 19-20
	Direction and navigation	An-Nahl 16	The Earth and its Form	Ar-Ra'd 3

Topic	Science Concept	Ayat Al-Qur'an	Science Concept	Ayat Al-Qur'an
	Diversity of regions and nations	Al-Hujurat 13	Tectonic movement	An-Naml 88
	Mountains as Earth's pillars	An-Naba 6-7	The dynamics of earth plate movement	Az-Zalzalah 1-2
	Water as the source of life	Az-Zumar 21	Humans manage the earth	Al-Baqarah 30
Iklim dan Perubahannya/ Climate and Its Changes	Seasonal changes	Yunus 5	The atmosphere as a protector	Al-Anbiya 32
	Day and night	AL Imran 190	Natural balance	Ar-Rahman 7-8
	Wind and rain in regulating climate	Al-A'raf 57	Water for life	Al-Anbiya 30
	Damage caused by humans	Ar-Rum 41	Rainfall	Az-Zukhruf 11
	Prohibition of causing damage	Al-A'raf 56	Humans protect the earth	Al-Baqarah 30
Ini Khas Daerahku! / This is What's Unique About My Region	Diversity of living things	Al-Fatir 27-28	Do not destroy the earth	Al-A'raf
	The role of living things	Al-An'am 38	Working Time	An-Naba 11
	Uniqueness of regional differences	Az-Zumar 21	The sea for life	An-Nahl 14
	Humans with nationalities and ethnicities	Al-Hujurat 13	Utilisation of Alm	Ar-Rahman 7-8
	Utilisation of the Earth	Al Baqarah 29	Do not destroy the earth	Al-A'raf
Peranku di Lingkungan Sekolah dan Masyarakat/ My Role in the School Environment and Community	The role and diversity of humans	Al-Hujurat 13 Az Zukhruf 32	Social interaction	Al-Maidah 2 Al Imran 103 Al-Hujurat 11
	Obedience to teachers	An-Nisa 59 Al-Baqarah 188	Interaction with the environment	Al-A'raf 56 Al Baqarah 205
	Responsibility	Al-Muddatsir 38 Al Ahzab 72		
Keragaman Budaya dan Kearifan Lokal/ Cultural Diversity and Local Wisdom	Ethnic diversity	Al-Hujurat 13 Ar-Rum 22	Mutual cooperation	Al-Miadah 2 Al Imran 103
	Pride in diversity	Ibrahim 7 Al-A'raf 10	Preserving good traditions	Luqman 17
	Preserving nature	Al-A'raf 56 Al-Baqarah 205		
Menjadi Pahlawan	Damage caused by humans	Ar-Rum 41 Al-A'raf 56	The blessings of plants	Abasa 24-32 Ibrahim, 32-

Topic	Science Concept	Ayat Al-Qur'an	Science Concept	Ayat Al-Qur'an
Lingkungan/ Be an Environmental Hero		Al-Baqarah 205		33
	Humans preserving the Earth	Al-Baqarah 30 Al-Ahzab	Cultural differences	Al-Hujurat 13 Al Rum 22 Lugman 17
	Wise use of energy	Al-A'raf 31 Al-Isra 27 Al-Furqan 67	Shared responsibility	Al Maidah 2 Az-Zalzalah 7-8
5th grade				
Di mana Indonesia Berada/ Where Indonesia is Located	Ethnic differences	Ar-Rum 22	Agricultural	Qaf 9-11
	Geography of the Earth	Al-Hijr 19	Indonesia's Ring of Fire	An-Naba 6-7
	Maritime countries	Al-Anbiya 30 An-Nahl	Gratitude for abundance	Ibrahim 7 Al-Baqarah 164
	Maritime Trade	Al-Jasiyah 12	Agricultural	Qaf 9-11
Majulah Daerahku!/ Bring on My Region!	Command to work	Al-Jumu'ah 10	No excess	Al-A'raf 31 Al Isra 27
	Seeking sustenance	Al-Mulk 15	Protecting the environment	Ar-Rum 41 Al Baqarah 205
	Seeking sustenance at sea	An-Nahl 14	Wise behaviour	Al Ma'idah 2 Al-Qasas 77
	Trade	An Nisa 29 Al Baqarah 275	No excess	Al-A'raf 31 Al Isra 27
Harmoni dalam ekosistem/ Harmony in the Ecosystem	The role of living creatures	Al-An'am 38	Marine ecosystems	An-Nahl 14
	Balance	Ar-Rahman 7-9 Al Mulk 3	Marine and freshwater ecosystems	Fathir 12
	Components of water	An-Nur 45 Yasin 33-35	Prohibition of damaging ecosystems	Ar-Rum 41 Al-Baqarah 205
	Food plants	Abasa 24-32 Al A'raf 57	Humans as stewards of the earth	Al-Baqarah 30 Al-A'raf 56
Air sumber kehidupan/ Water, the Source of Life	The process of rain	Az-Zumar 21 Ar-Rum 48 Al-Mu'minun 18	Water conservation	Ar-Rahman 7-9 Al-A'raf 56
	Water as a source of life	Al-Anbiya 30 An-Nahl	Environmental damage caused by humans	Ar-Rum 41

Topic	Science Concept	Ayat Al-Qur'an	Science Concept	Ayat Al-Qur'an
	Fresh water and salt water	Al-Furqan 53		
Daerahku yang bersejarah/ My Historic Region	Study of past civilisations	Ar-Rum 9	Learning from history	Al-Hasyr 18
	History as a lesson	Yusuf 111	Evidence of Allah's power in the legacies of previous generations	Al-Hijr 75
	Preserving the heritage of ancestors	Al-Baqarah 170	Learning from history	Al-Hasyr 18
Perubahan pada Diriku / Changes in Myself	Growth and development	Ar-Rum 54 Al Hajj 5	Maintaining perspective	An Nur 30-31 Al-Isra' 32
	Maturity and responsibility	An-Nur 59	Prohibition of abuse	Al-Hujurat 11 An-Nisa 29
	Maintaining cleanliness	Al Baqarah 222	Mental health	Ar-Ra'd 28
Bermain dengan Cahaya/ Playing in the Light	Allah as the source of light	An-Nur 35	The cycle of day and night	Al Furqan 45-46 Al-Qasas 71
	The sun as a source of light energy	Yunus 5 Nuh 16	Light and colour	Fatir 27
Ramai karna bunyi / Lively with Sound	Allah created the sense of hearing	An-Nahl 78	Ethics of speech	Luqman 19
6th grade				
Makanan Bergizi untuk Kesehatan Pencernaanmu/ Nutritious Food for Your Digestive Health	Eating what is lawful and good	Al-Baqarah 168	Enjoy water	Al-Anbiya 30
	Overeating and overdrinking	Al-A'raf 31	Eat well	Al Mu'minun 51
	Food as the source of life	Abasa 24-32	Enjoy water	Al-Anbiya 30
Tarik dan Embuskan/ Breathe In and Out	Given breath by Allah	As-Sajdah 9	Prohibition of polluting the earth	Al-A'raf 56
Jejak Sang Pahlawan/ The Hero's Footsteps	Struggle in the way of Allah	At-Taubah 20	Love water	An-Nisa 75
	Unity	Ali-Imran 103		
Kearifan Lokal, Warisan Leluhur untuk	Diversity	Al-Hujurat 13	Protect nature	Al-A'raf 56
	Unity	Ali-Imran 103	Be fair	An-Nahl 90
	Mutual cooperation	Al-Maidah 2	Tolerance	Al-Kafirun 6

Topic	Science Concept	Ayat Al-Qur'an	Science Concept	Ayat Al-Qur'an
Persatuan Bangsa / Local Wisdom	Deliberation	Asy Syura 38		
Energi untuk masa depan/ Energy for the Future	The sun as a source of energy	Yunus 5 An Naba 13	Prohibition of causing damage	Ar-Rum 41 Al-A;raf 56
	Wind as a source of energy	Ar rum 48	Be thrifty	Al Isra 27
	Water as a source of energy	Al Anbiya	Humans as caliphs	Al-Baqarah 30
	Geothermal energy	Al-Zalzalah 2		
Mengembara di jagat raya/ Wandering in the universe	Creation of the universe	Al-Anbiya 30 Al Mulk 3	Earth's balance	An-Nazi'at 30 Al Hijr 19
	The sun and moon revolve in their orbits	Yasin 38-40 Ar Rahman 5	Space exploration	Ar-Rahman 33 Al Ghasiyah 17-20
	The rotation of the earth and the change from day to night	Az-Zumar 5 Luqman 29	Stars	Al-Waqiah 75-76 Al Furqan 61

Table 2 shows that almost every IPAS topic from grade III to VI has a related Qur'anic verse, from the human senses (An Nahl 78) to plate tectonics (An Naml 88) and energy conservation (Al Qamar 49). This large number of possible connections is very different from the almost total absence of real integration shown in Table 1. This means the problem is not a lack of relevant Qur'anic content, but a gap in how the curriculum and textbooks are designed. This matches Hilda et al. (2020), who argue that the separation between religious and general education in Indonesia comes more from how the system is organized than from any real conflict between the two. It also matches Miftahudin (2023), who argues that integrating Islamic values requires a deliberate process of turning theological ideas into proper teaching content, not something that happens automatically just because the topics are related. Together, these views suggest that the gap found in this study is not about whether relevant content exists, but about how it is implemented, which supports the recommendation to build a more systematic integration model.

According to (A & Naf'atuzzahrah, 2026), Islamic science-based learning materials have been developed in various forms, including modules, teaching materials, learning media, encyclopedias, physics magazines, and student worksheets. The review also indicated that integration was commonly achieved by connecting science concepts with Qur'anic verses, Islamic values, and contributions from Muslim scholars. This evidence demonstrates that practical

models and products for integrating science and Islamic values already exist. Therefore, the absence of explicit Qur'anic integration in the IPAS textbooks examined here cannot simply be attributed to the lack of available models or examples in the literature. Rather, it suggests a gap between the development of Islamic science-based learning resources and their incorporation into mainstream IPAS textbooks.

Based on the findings, a recommended follow-up action is the development of IPAS textbooks based on the systematic integration of Qur'anic values. Textbook authors and curriculum developers can add sections on the reflection of *kauniyah* verses, the reinforcement of the concept of khalifah, and the integration of hadith related to the pursuit of knowledge and nature conservation. Thus, science learning shaping Islamic character as well as strengthening science literacy. In addition, this study also opens up opportunities for further research on how teachers utilize IPAS textbooks in integrating religious values into learning practices. Further studies can use classroom observation or teacher interviews to understand how the integration of these values is implemented in daily learning processes.

This study is limited to the analysis of textbook texts without observing and examining the implementation of learning in the classroom. Moreover, the study focused on content analysis approach but not evaluate the perceptions of teachers and students regarding the integration of Islamic values. Therefore, further research involving observation and interviews to obtain a more comprehensive is available.

D. Conclusion

The analysis of IPAS textbooks for grades III–VI shows that they are still not systematically structured with implicit value. The findings also show that most of the IPAS material actually has great potential to be integrated with *kauniyah* verses and scientific values in Islam although included in student textbooks. Teachers require to improve the conveyance of *kauniyah* values in their instruction by using worksheets or learning media developed creatively by teachers. This study recommends the need to develop more integrative IPAS books by adding reinforcement of Qur'anic verses, hadiths, and reflections on tauhid values in each relevant theme. In addition, further research is recommended to examine the implementation of Islamic value integration in classroom learning practices in order to obtain a more comprehensive picture of the effectiveness of such integration.

E. References

- Aini, N., Al Muhdhar, M. H. I., Rochman, F., Sumberartha, I. W., Wardhani, W., & Mardiyanti, L. (2021). Analisis Tingkat Literasi Lingkungan Siswa Pada Muatan Lokal Pendidikan Lingkungan Hidup. *Jurnal Pendidikan Biologi*, 12(1), 40. <https://doi.org/10.17977/um052v12i1p40-44>

- Annisa, S., Tursinawati, T., & Vitoria, L. (2024). Analisis Buku Teks IPAS Kelas VI Sekolah Dasar Terkait Aspek Keyakinan Agama Dalam Memperoleh Ilmu Pengetahuan. *Cendikia: Jurnal Pendidikan Dan Pengajaran*, 2(12), 466–2024.
<https://doi.org/https://jurnal.kolibi.org/index.php/cendikia/article/view/4588>
- AY, M. F., & PINGOV, N. Z. (2022). Imam Hatip Lisesi Öğrencilerinin Kur'an-ı Kerim Dersine Yönelik Motivasyonlarının İncelenmesi. *Hitit İlahiyat Dergisi*, 21(1), 105–132. <https://doi.org/10.14395/hid.1073678>
- Batič, J., & Lebar Kac, P. (2020). Cross-Curricular Analysis of Picture Books in the Fifth Grade of Primary School: A Case Study. *Center for Educational Policy Studies Journal*, 10(4), 165–185. <https://doi.org/10.26529/cepsj.910>
- Krippendorff, K. (2019). *Content Analysis: An Introduction to Its Methodology*. SAGE Publications, Inc. <https://doi.org/10.4135/9781071878781>
- Latjompoh, M., Gonibala, A., Ahmad, J., Al-Zou'bi, R. M., Alanazi, A. A., Fitriani Nasir, N. I. R., & Damopolii, I. (2025). Meaning-Based Learning: Integration of Islamic Values to Empower Students' Moral Sensitivity in Science Learning. *Educational Process International Journal*, 17(1). <https://doi.org/10.22521/edupij.2025.17.398>
- Leli, Sunarya, P. A., Lutfiani, N., Lestari Santoso, N. P., & Ajeng Toyibah, R. (2021). The Importance of Technology to the View of the Qur'an for Studying Natural Sciences. *Aptisi Transactions on Technopreneurship (ATT)*, 3(1), 58–67. <https://doi.org/10.34306/att.v3i1.142>
- Lorenza, S., Dalifa, D., Agusdianita, N., Winarni, E. W., & Yusnia, Y. (2024). Analisis Nilai Kemandirian dalam Buku IPAS Materi IPA Pada Kurikulum Merdeka Fase B. *Kalam Cendekia: Jurnal Ilmiah Kependidikan*, 12(1). <https://doi.org/10.20961/jkc.v12i1.84014>
- Mayring, P. (2015). *Qualitative Content Analysis: Theoretical Background and Procedures* (pp. 365–380). https://doi.org/10.1007/978-94-017-9181-6_13
- Mayring, P. (2022). *Qualitative Content Analysis*. SAGE Publications Ltd. <https://doi.org/10.4135/9781036231798>
- Mohammed, D., Aini, Q., Supriyanti, D., Sulistiawati, & Anggraeni, M. (2021). Assimilate The Qur'an's View with Science and Technology Perspectives. *APTISI Transactions on Technopreneurship*, 3(1), 42–47. <https://doi.org/10.34306/att.v3i1.141>
- Muslih, M., Yahya, Y. K., Haryanto, S., Musthofa, A. A., & Yahya, Y. (2024). *HTS Teologiese Studies/Theological Studies*. <https://doi.org/10.4102/hts>
- Okdiansyah, Endang Widi Winarni, & Abdul Muktaadir. (2024). Analisis Unsur Berpikir Kreatif dan Keterampilan Proses pada Buku IPAS Muatan IPA Kelas IV Fase B Kurikulum Merdeka. *Jurnal Kajian Pendidikan Dasar*, 3(2), 191–201.