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Knitting Kauniyah and Qauliyah Verses: A Countenance Evaluation Study of the Trensains Program at Muhammadiyah Sragen Senior High School

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Abstract
Evaluative research is urgently needed to illustrate how Trensains is implemented in real-world contexts, particularly in educational institutions such as Muhammadiyah Senior High School in Sragen, which has adopted this approach. This study presents a unique approach by examining the integration of verses from kauniyah (the universe) and qauliyah (revelation/the Qur'an) in science learning. This study's novelty lies in applying the Countenance Stake evaluation model to assess the level of integration of Islamic values within the Trensains curriculum structure, which also represents a new contribution to the field of evaluating integrative science-based Islamic education. This research is an evaluative study with a descriptive-qualitative approach. The Countenance Evaluation Model developed by Stake was used to evaluate the program. The research location was Muhammadiyah Senior High School in Sragen, Central Java. This model examines program implementation through three main components, namely: (a) antecedents or initial context evaluation; (b) transactions that reflect the learning implementation process; and (c) outputs that evaluate the results of the process. The number of respondents was five teachers and three students. Implementing the Trensains program, which integrates science and divine revelation values, has significantly shaped students' conceptual understanding, analytical skills, and spiritual awareness. The learning strategy applied has led to a holistic scientific-spiritual approach. However, in its implementation, there are several obstacles, especially in the form of integration in the curriculum, especially in both fields, and strengthening the role of teachers as facilitators of integrated learning. Training in the integration of science and divine revelation values that is running has not been fully optimal due to limited understanding of the integrative approach, according to the field being developed, the lack of a comprehensive assessment rubric, and the lack of systemic support in terms of facilities and cross-subject collaboration.
Keywords: Evaluation, Trensains Program, Integrative Education.

Introduction

The formation of a superior future generation is determined, at least in part, by how education currently plays a role in building the intellectual process of the current generation. This formation process cannot be separated from how character, morals, and spirituality are interrelated and interconnected (Yachina, 2015; Suyadi et al., 2021). In the current era of digitalisation, education must remain synergistic and sustainable while being relevant to spiritual and ethical values (Aithal & Srinivasan, 2025). Therefore, it is important to implement holistic education. This has been demonstrated by the emergence of new programs that serve as evidence of holistic education in science and spirituality, such as the Trensains program, also known as the science boarding school (Arifin & Aji Nugroho, 2025).

Trensains is an innovative educational program based on pesantren, combining scientific understanding of nature (ayat-ayat kauniyah) and divine revelation (ayat-ayat qauliyah) into a single system that emphasises research, critical thinking, and spiritual strengthening. Trends

serve as evidence of the integration of knowledge increasingly advancing amidst the rapid flow of information that tends toward secularism. Trensains, as an educational approach based on the integration of science and divine revelation, brings fresh air to developing an Islamic education model relevant to the demands of the times. In this context, Trensains is not merely an experimental program but a strategic innovation aiming to unite two epistemological poles: modern science and Islamic spiritual values (Fardyatullail et al., 2023). This innovation emerges as a response to the fragmentation of knowledge that has long overlooked the role of values in scientific development. By uniting kauniyah and qauliyah verses, Trensains seeks to restore the function of science as a path to ma'rifatullah, not merely as a value-free technological tool. Therefore, Trensains is an important theoretical and practical answer to the challenges of education faced with ethical crises and dehumanisation.

Although the Trensains program offers a new integrative approach between science and revelation, its implementation is inevitably fraught with challenges and potential problems (Council et al., n.d.). As a relatively new educational model, Trensains faces issues related to resource readiness, including teachers, curriculum, and students. Many educators previously accustomed to teaching conventionally are now required to deliver material using an integrative approach linking scientific concepts with the spiritual values of revelation. (Jannah et al., 2025; Ningsih et al., 2022). On the other hand, students also need time to adapt to developing a cross-disciplinary way of thinking that is not only logical but also theological. Another problem lies in the curriculum dimension, which is sometimes still fragmented. Although conceptually Trensains promotes the integration of kauniyah and qauliyah verses, there is still a tendency to separate general and religious subjects in practice. This shows that not all curriculum elements have been designed to support an integrative approach fully. Additionally, the science material taught often remains oriented toward conventional national education standards, while the scientific interpretation of Quranic verses has not yet been fully internalised into the learning system (Srinio et al., 2025).

From an implementation perspective, the Trensains learning process also faces methodological challenges. Teaching methods that combine scientific analysis with interpretive approaches require innovative and contextual pedagogical strategies. Not all teachers or facilitators have the balanced pedagogical and theological skills to implement transdisciplinary learning effectively (Hanif et al., 2025), (Horn et al., 2024)Furthermore, limitations in facilities and infrastructure, particularly in supporting research-based science learning, pose additional obstacles to achieving the desired learning outcomes. The disparity between the ideal concept and the reality of implementation is a key reason for conducting a comprehensive evaluation. Furthermore, the success of the Trensains program is measured by cognitive, affective, and spiritual aspects (Nufus et al., 2023). Therefore, evaluation instruments are needed to capture changes in students' attitudes, ways of thinking, and life orientations. Problems arise when assessments focus on conventional academic achievements, while the spiritual-transcendental dimension has not been adequately studied. In this case, evaluation is important to assess the effectiveness of the transformation in students in a more comprehensive dimension, not only in terms of grades but also their character and outlook on life (Ziegler et al., 2012).

However, no matter how good an innovation is, it will not contribute maximally without a systematic and in-depth evaluation process. Evaluation is an important tool in ensuring that programs run by their vision and mission, and can provide a complete picture of the implementation process and results (Ayyusufi et al., 2022; Palah et al., 2022). In this case, the evaluation of the Trensains program is not only limited to administrative or academic aspects, but also to the transformative dimension, namely changes in the character, way of thinking, and life orientation of students. Therefore, it is important to conduct a comprehensive evaluation so that the excellence of this program is not merely a slogan but is truly implemented in the academic culture and the lives of the students (Wiśniewska & Grudowski, 2024). Without evaluation, it will not be easy to assess the extent of the achievements and impacts of Trensains on the formation of well-rounded individuals.

The uniqueness of the Trensains' approach, which integrates science and revelation, gives it a novelty value that warrants further study through an evaluative approach. In Indonesia's context of Islamic education, such an approach is still relatively new and has not been widely adopted. Thus, evaluating this program can make an important contribution to the academic literature on integrative education models, especially those based on Islamic boarding schools. The evaluation results can also serve as a data source and reference for other institutions seeking to implement or develop similar programs. This evaluation, grounded in both scientific and spiritual paradigms, aligns with the spirit of interdisciplinary integration in contemporary Islamic higher education (Nadirah, 2023).

The benefits of the Trensains evaluation program are local and have the potential to contribute nationally and even globally, particularly in developing a contextual Islamic education model relevant to the Fourth Industrial Revolution and Society 5.0. Amidst the globalisation of values and the penetration of secular culture, Trensains can serve as an alternative model that teaches the values of monotheism without neglecting mastery of modern technology and science. This program can be refined, improved, and developed through appropriate evaluation into a broader integrative educational prototype. Evaluation also provides empirical data that policymakers need to determine the strategic direction of Islamic education development. Thus, the Trensains evaluation program becomes integral to the scientific process and social transformation.

Although Trensains has been introduced as an integrative educational model that combines kauniyah and qauliyah verses and addresses the challenge of dehumanisation in modern education, there is limited evaluative research that comprehensively examines how this program is implemented in the real context of specific educational institutions. Previous studies have focused more on conceptual and normative aspects, rather than on practical implementation in the field, particularly those involving the simultaneous input, process, and output dimensions of learning. Furthermore, existing evaluations tend to be administrative and academic, while transformative dimensions such as changes in character, mindset, and life orientation of students have not been systematically measured. Therefore, evaluative research based on the Countenance Stake model is needed, which integrates context, process, and outcome evaluation, especially in implementing institutions such as SMA Muhammadiyah Sragen, which has effectively adopted the Trensains program. Based on the background description, the research questions can be stated as follows:

a) How is the readiness of the Trensains program input at SMA Muhammadiyah Sragen, including the readiness of teachers, curriculum, and students to implement integrative education based on kauniyah and qauliyah verses?
b) How is the Trensains learning process at SMA Muhammadiyah Sragen?
c) What outcomes were achieved from Trensains' implementation at SMA Muhammadiyah Sragen?

Therefore, evaluation can use a holistic approach such as the Countenance Stakeholder model, which allows for assessing the initial context, learning process, and final program outcomes. Through this model, the dimensions that shape program success can be systematically recorded, from readiness inputs and the quality of learning interactions to student outcomes. This research is expected to provide a scientific contribution that is not only descriptive but also reflective and is recommended for further development of the Trensains program in the future.

Research method

This study is an evaluative study with a descriptive-qualitative approach. The focus of the study is directed at the implementation of the Trensains program held at SMA Muhammadiyah Sragen, Central Java. To evaluate the program, the Countenance Evaluation Model developed by Stake was used, which examines the implementation of the program through three main components, namely: (a) antecedents or evaluation of the initial context; (b) transactions that reflect the learning implementation process; and (c) outputs that evaluate the results of the process. The selection of this model was considered based on the formulation of the problem that emphasises a comprehensive evaluation of the planning, implementation, and evaluation of statistical learning. This study involved students, teachers, principals, and stakeholders in the SMA Muhammadiyah Sragen environment who were selected purposively, considering that the class studied allows direct observation of learning dynamics. The data collection technique used was a non-test method, such as observation, documentation studies, and interviews, to explore data from various aspects of learning implementation. The primary focus of this study is the exploration of meaning, perception, and challenges and successes experienced by Trensains program implementers, aiming to produce a comprehensive and reflective picture of the effectiveness of Trensains implementation qualitatively.

Data analysis in this study was compiled by considering the importance of the context of the case study being studied. The researcher used the analysis model from Bogdan and Biklen (2007) as the main framework to achieve meaning and understand the perceptions that emerged during the research process. The initial step was the data reduction process, namely filtering information to make it more focused and meaningful, which was carried out on data collected from informants. To support objectivity and efficiency in this process, NVivo 12 Plus software was used. This application allows researchers to compile systematically and group data and produce visualisations in thematic tables and word clouds to strengthen data presentation. To obtain valid information, triangulation of data sources is essential. The data sources used were three students, three teachers, and two stakeholders at Muhammadiyah High School in Sragen, Central Java. Repeated interviews were conducted, and consistency was found after the fourth interview, with the shortest interview lasting 12 minutes and the longest

34 minutes. The next stage involves analysing the relationships between themes, which are then synthesised to form a complete, logical, and integrated understanding. The final step is the data verification process, where all information categorised into specific clusters is retested to ensure its validity and consistency. The verification results then become the basis for compiling the final research findings.

Result

The interview began with a brief discussion of Trensains' initial introduction at SMA Muhammadiyah Sragen. This was followed by a more in-depth discussion of the learning outcomes achieved during the Trensains program's implementation. Three main findings were identified: the activities to prepare students for integrating science and divine revelation, the mentoring provided to students to hone their skills, and the results of the program's dissemination. The research findings presented focused solely on the experiences of students and teachers in integrating science and divine revelation into classroom learning, particularly among tenth and eleventh-grade students.

However, this study does not sufficiently establish an academic dialogue with the global literature on integrating science and divine revelation. Therefore, a systematic review of similar international research is needed to strengthen the argument and clarify Trensains' scientific contribution to the global Islamic education discourse. To reinforce the importance of evaluating the Trensains program, the following steps are outlined:

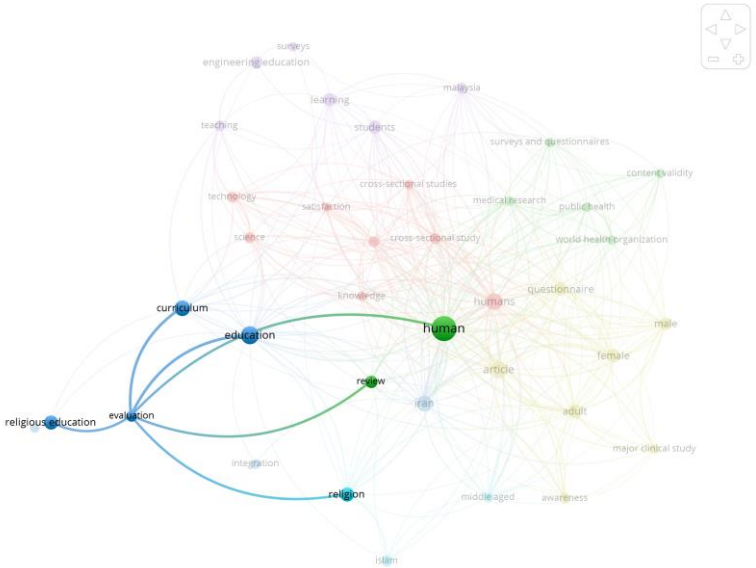

Figure 1. Trensains' research mapping results

Bibliometric mapping using VOSviewer and 91 journal articles indexed by Scopus shows that religious education, science, and evaluation studies form a cluster relatively separate from other general education topics such as students, surveys, and knowledge. The keywords used include Islamic science, education, evaluation, and religious education. Strong connections are found only between the keyword's "curriculum", "education", and "religious education." In contrast, deeper integration of religious concepts—such as using "kauniyah" and "qauliyah" verses in learning—has not yet appeared in the literature. This indicates that research linking curriculum evaluation to integrating religious values, particularly in the

context of science education in Islamic schools, is still minimal. Thus, ample scope exists for a more in-depth study of how religion-based curricula are implemented and evaluated comprehensively.

In this context, this research is of great urgency. The Countenance Stake approach provides a comprehensive picture of the alignment between the planning, implementation, and outcomes of the Trensains curriculum, which integrates "kauniyah" and "qauliyah" verses. This research not only fills a gap in the literature related to religion-based evaluation in science education but also has the potential to provide an evaluation model that can be replicated in other Islamic educational institutions.

Antecedents: Preparation for implementing integrative learning

Related findings and preparations for implementing divine revelation-based learning activities integrated with natural sciences include 1) teachers' understanding of the programs and curricula applicable to science schools, 2) targets for developing student potential as a form of integrating divine revelation with science to have an impact on student achievement, and 3) strategies used in the integrated learning process. The data reduction results are presented in Table 1 with a description of each theme.

Table 1. Preparation for Implementing Integrative Learning at Trensains School

Response	Sub-Theme	Result Verification
Most teachers have recognised the importance of integrating divine revelation and science in every aspect of learning. The applicable curriculum is a guideline that emphasises cognitive achievement and prioritises character building and strengthening spiritual values based on the Qur'an. However, this understanding has not been fully implemented uniformly, considering that teachers still need conceptual deepening and technical training to design integrative learning by the vision and mission of the Trensains curriculum in its entirety and operationally.	Teachers' understanding of Trends and the applicable curriculum	Teachers in Trensains school environments demonstrate a pretty good understanding of the basic principles of Trensains, namely the integration of divine revelation and modern science within a curriculum framework that has been designed uniquely. This curriculum is not only oriented towards mastering science material, but also targets the development of students' potential as a whole, including spiritual, intellectual, and moral aspects, to form a profile of Muslim scientists with Quranic morals. To achieve this goal, the learning design is designed integratively through a thematic, contextual, and scientific approach, with strategies that emphasise active student involvement, reflection on the verses of kauniyah, and character building through project-
Implementing the Trensains curriculum is focused on forming a profile of Muslim scientists who are superior in mastering science and technology and have spiritual sensitivity, noble morals, and a strong awareness of monotheism. Through an integrative approach between kauniyah verses and qauliyah verses, students are directed to develop critical reasoning skills, scientific thinking skills, and concern for humanitarian and environmental values. This curriculum targets each student to be able to optimise their potential holistically and actively contribute to the life of society as a lifelong learner.	Targets for developing student achievement	
In implementing the Trensains curriculum, an integrative approach harmoniously combines Islamic and scientific values. Learning is	Learning design and	

designed thematically and contextually, prioritising scientific principles, collaborative, and oriented towards character building and instilling spiritual values. The strategies used include using kauniyah verses as an entry point to understanding scientific concepts, reflective discussions based on the Qur'an, project-based learning, and using natural phenomena. With this approach, students not only understand the material cognitively, but can also contemplate nature as a form of strengthening monotheism.	strategies are implemented.	based activities and observation of natural phenomena around them.

Most respondents stated that the implementation of the Trensains program began with planning the Trensains curriculum at SMA Muhammadiyah Sragen, which was designed based on an integrative vision between science and Islamic values. Based on the results of interviews with the principal and several teachers, it was found that the main orientation of this curriculum was to shape the profile of students as Muslim scientists who were competent in science but also had spiritual sensitivity and Qur'anic morals. Most educators understood that implementing the curriculum required strengthening the values of monotheism in every learning activity. However, based on the results of the analysis of the curriculum documents and the Learning Implementation Plan (RPP), it was found that not all teachers had explicitly integrated this approach in the learning planning stage.

Although the school has prepared a basic Trensains curriculum document as a formal reference in organising education, implementing the curriculum at the practical level still faces challenges. The document has not been fully internalised by all educators in the form of applicable and contextual learning plans. This shows a gap between the formulation of curriculum policies and their implementation in the classroom, which can impact the overall less-than-optimal achievement of the curriculum objectives.

"We have a guideline that is used as a guideline for Trensains, but it is still in the process of being used and developed for all subjects, and we continue to perfect it." (KS-018)
"The main goal is to produce Muslim scientists who can view science not only from a rational aspect, but also as a way to get closer to Allah. So, when students learn about nature, they also reflect on the verses of Kauniyah." (GF-06)
"We also recommend using relevant verses of the Qur'an as an opener or reinforcement of the material. In addition, there are habituation programs such as science sermons, nature contemplation, and STEAM projects based on Islamic values. These strategies ensure that students do not separate science and faith in their learning process." (GK-11)

The interview excerpt reflects the teacher's experience in identifying student potential, especially in science, which has been used as a basis for selecting participants in competitions such as national science competitions. However, the method used is inappropriate because it is not based on clear and structured indicators from the Trensains curriculum. Teachers are also aware of the limitations in their competence to detect science potential holistically, especially in the context of integration between cognitive and spiritual aspects, which are the core of the Trensains approach. Data visualisation through word clouds (Figure 1) shows that implementing integrated science and divine revelation learning requires comprehensive

preparation, starting from mature curriculum planning, appropriate learning and assessment strategies, and strong collaboration between schools, teachers, and students. This finding indicates that student potential is facilitated but not optimal due to weak guidance that does not optimally impact all subjects. However, not all materials can be explained scientifically from a divine revelation perspective. In addition, the lack of understanding of the integrative program at Trensains causes an imbalance in exposure to realise maximum integration. Therefore, in the context of implementing the Trensains curriculum, synergy is needed between stakeholders so that the development of learning tools for teachers and development for students can occur, so that students can learn in a more focused manner and accordance with the values of revelation inherent in the Trensains program.

Figure 1. Word cloud: Preparation for Implementing Integrative Learning at Trensains School

Transactions: Implementation of integrative learning

Information on the implementation of integrative learning between divine revelation and natural sciences was obtained from eleven respondents who provided a comprehensive picture of the process in the classroom. Three main sub-themes were successfully identified, namely: 1) the ideal characteristics of integrative learning that connects kauniyah verses with qauliyah verses, 2) the efforts of teachers and schools in organising learning that reflects the integration of Islamic values with science concepts, and 3) the implementation of assessment and evaluation of integrative learning. The data reduction results are presented in Table 2 with a description of each theme.

Table 2**.** Preparation for Implementing Integrative Learning at Trensains School.

Response	Sub-Theme	Result Verification
Integrated learning between divine revelation and natural sciences conveys scientific concepts rationally and guides students to contemplate every phenomenon as a sign of God's greatness. In practice, this integration is realised using verses of the Qur'an as an introduction to the material, strengthening the spiritual meaning of scientific concepts, and reflecting on the values of faith in class discussions. Teachers also emphasise the	Ideal characteristics of integrative learning that connect Kauniyah verses with Qauliyah verses	The implementation of integrative learning in the Trensains Curriculum aims to connect natural science with divine revelation, so that students not only understand scientific concepts rationally, but

Response	Sub-Theme	Result Verification
importance of students' emotional and spiritual involvement in understanding science as a means of getting closer to the Creator, so that learning is not secular, but rather integrated with the values of monotheism and Qur'anic morals.		also contemplate natural phenomena as signs of the greatness of Allah. This integration is implemented through using verses of the Qur'an in learning, strengthening spiritual meaning, and reflecting on faith values. Teachers and schools play an active role by developing teaching tools, activities such as nature contemplation and science sermons, and support for curriculum policies and teacher training. Regarding evaluation, some teachers have begun implementing assessments that include cognitive, affective, and spiritual aspects. However, the implementation is not yet systematic and still faces limitations in understanding and technical guidance. Continuous efforts are needed so that the integration of science, faith, and morals in learning can be achieved comprehensively.
Learning that integrates Islamic values with scientific concepts is implemented through various pedagogical strategies and institutional policies. Teachers play an active role in developing teaching materials that contain verses from the Qur'an as reinforcements for scientific concepts and designing learning activities that involve spiritual reflection, such as contemplation of nature and science sermons. On the other hand, the school supports this by preparing an internal curriculum that accommodates the integration of revelation and science, providing teacher training on integrative approaches, and facilitating habituation programs based on Islamic values. Synergy between teachers and school management is key to creating a learning ecosystem that not only emphasises academic achievement but also the formation of the character of critical, religious, and noble Muslim scientists.	Teachers' and schools' efforts in organising learning that reflects the integration of Islamic values with scientific concepts	
Teachers' efforts to assess students' cognitive achievements in understanding science concepts and affective and spiritual aspects related to Islamic values. Based on the interview results, some teachers have begun to prepare assessment instruments that contain integrative indicators, such as students' ability to relate natural phenomena to verses of the Qur'an, reflective attitudes towards the greatness of Allah, and the application of the value of monotheism in scientific argumentation. However, this evaluation has not been carried out systematically and is still limited to several subjects. The main obstacles are the limitations of teachers' understanding of the integrative assessment model and the unavailability of comprehensive guidelines. Therefore, further assistance is needed so that the assessment in Trensains learning can reflect all dimensions to be developed, namely the integration of knowledge, faith, and morals.	Implementation of assessments and evaluations of integrative learning.	

Based on the data presented in Table 2, it was found that integrating revelation and science in the learning process has not been fully implemented systematically, especially in the planning and assessment stages. However, several teachers said that they had tried to link natural phenomena with the messages of monotheism through class discussions, reflections on the verses of the Qur'an, and strengthening the spiritual meaning of each science concept taught. This habituation began to encourage teachers to design more contextual and meaningful learning, compile assessment rubrics that include cognitive and affective dimensions, and increase awareness of the importance of forming Muslim scientists who not only think

logically, but also have spiritual depth, are based on the values of monotheism, and have noble morals.

Implementing learning based on the Trensains Curriculum at SMA Muhammadiyah Sragen is rooted in an integrative vision that combines science with Islamic values. The results of interviews with the principal and teachers revealed that the main orientation of this curriculum is to produce a profile of Muslim scientists. Students with academic competence in science are based on spiritual sensitivity and Qur'anic morals. Most teachers understand that implementing this curriculum requires strengthening monotheism's values in every learning stage. However, a study of the curriculum documents and lesson plans shows that not all teachers have fully implemented the integrative approach in the learning planning stage.

Although the school has provided basic curriculum documents as official guidelines, their practical realisation in the classroom still faces several challenges. One of the main challenges is the incomplete internalisation of the Trensains concept in applicable and contextual learning planning. This condition indicates a gap between the formulation of curriculum policies and their implementation in the field. Several strategies, such as the use of relevant Al-Quran verses as an introduction to the material, science sermons, nature contemplation, and Islamic-themed STEAM projects, have been carried out by some teachers. However, integrating the cognitive and spiritual dimensions is still partial, especially when identifying student potential in science. This finding suggests that a comprehensive alignment is needed in planning, teacher training, and assessment design so that all subjects can consistently support Trensains' integrative vision. Data visualisation through word clouds also emphasises the importance of cooperation between teachers, students, and stakeholders in forming structured, meaningful learning, and in line with Divine revelation as a source of values and direction of education.

Figure 2. Word Cloud: Implementation of Integrative Learning at Trensains School.

Outcomes: Results of the implementation of integrative learning

The results of the implementation of integrative learning in the Trensains program show that integration is not only part of the learning process, but also the goal of a series of activities that include planning, implementation, and reflection on learning. Integrative learning positions integration as an indicator of the success of the internalisation process of knowledge and values. Based on the findings obtained, the implementation results have two main focuses. First, student integration achievement reflects an increased understanding of concepts, analytical skills, and the relationship between science and Islamic values. Second, integration

in the learning process is reflected in learning strategies, teaching materials, and class activities that combine scientific and spiritual approaches in a balanced manner.

Table 3. Preparation for Implementing Integrative Learning at Trensains School

Response	Sub-Theme	Result Verification
Students are not only able to master science material conceptually but also demonstrate the ability to connect it with Islamic principles through kauniyah and qauliyah verses. This is evident in their ability to explain natural phenomena with a scientific approach framed by tauhid's values and their skills to analyse contextual problems with an integrative perspective. Through learning activities designed to develop critical and reflective thinking, students can gradually understand that science is not a neutral entity but part of the mandate to recognise, manage, and protect God's creation. Integrative learning at Trensains has fostered awareness that science and religion are not two opposing poles but a unity that strengthens each other in forming an Islamic perspective and attitude to life.	Reflection of increased conceptual understanding, analytical skills, and the relationship between science and Islamic values	Implementing integrative learning in the Trensains program has improved conceptual understanding, analytical skills, and strengthened the relationship between science and Islamic values. Students can explain scientific phenomena with a logical approach and a monotheistic nuance, reflecting the awareness that science is a means of devotion to God. This success cannot be separated from the balance between learning strategies, teaching materials, and class activities that are designed in an integrative manner. Each learning component combines scientific and spiritual approaches harmoniously, making the learning process focused on academic achievement and the formation of a complete Islamic character.
Learning strategies are designed to encourage scientific exploration and build awareness of the Islamic values that underlie every process of seeking knowledge. Teaching materials are designed with an integrative approach, where scientific concepts are explicitly linked to verses of the Qur'an and principles of Islamic ethics so that students can understand the relationship between knowledge and faith. Classroom activities are also directed at developing critical and reflective thinking skills, with discussion spaces providing a place for integrating scientific logic and spiritual values. Through this approach, the learning process produces knowledge and forms the character of students who balance intellectual intelligence and spiritual depth.	Balance of learning strategies, teaching materials, and class activities that combine scientific and spiritual approaches	

Based on the data presented in Table 3, the implementation of integrative learning in the Trensains program shows significant achievements in holistically forming students' competencies. The learning model integrating modern science with Islamic values improves students' conceptual understanding of the learning material and strengthens their spiritual and character dimensions. Students can link scientific concepts with Islamic perspectives by integrating kauniyah and qauliyah verses. This encourages the growth of awareness of monotheism and the meaning of human existence as a caliph.

From a cognitive perspective, integrative learning has been shown to encourage increased critical, analytical, and reflective thinking skills. Project-based learning activities, integrative

thematic discussions, and collaborative assignments have increased students' ability to solve contextual problems with a multidisciplinary approach. Affectively and spiritually, students show increased self-awareness, discipline, and social responsibility because of understanding the Islamic values inherent in the learning process. In general, the implementation of integrative learning in the Trensains program has positively contributed to forming student profiles who are superior in academic aspects and have strong spiritual and social characters. This aligns with the primary objective of Trensains education, which prioritises the integration of science and faith as a foundation in forming a generation of ethical Muslim scientists who contribute to civilisation. The results of the Trensains program implementation show that integrative learning between science and divine revelation requires comprehensive readiness to produce more optimal learning outcomes. Data visualisation through word clouds (Figure 1) underlines the importance of structured curriculum planning, learning and assessment strategies that align with the integrative approach, and effective collaboration between schools, teachers, and students.

Figure 3. Word Cloud**:** Trensains School Integrative Learning Outcomes

In evaluating the implementation of the Trensains program, training in developing the integration of divine revelation with science is one of the important instruments in improving the quality of learning and forming a profile of students who excel academically and spiritually. Based on the findings, the training in developing the integration of divine revelation with applied science is still basic and limited, as shown by skimming information, interpreting it, and responding morally, which the accompanying teacher monitors. Although these activities align with the essence of developing the integration of divine revelation with science from an educational perspective, their implementation has not fully reflected the integrative approach that is characteristic of Trensains. This is due to the limited understanding of teachers regarding the concept of integrated learning and the uneven distribution of integration-based learning strategies across subjects.

The evaluation also shows that the role of teachers is vital in familiarising the practice of developing the integration of divine revelation with science that is not only oriented towards texts, but also towards the development of critical and reflective thinking skills. However, there are still challenges in the form of the unavailability of systematic assessment rubrics and

appropriate assessment standards to measure students' integration skills. Supporting facilities from schools, such as the availability of relevant reading sources and the development of student potential, also need strengthening. In addition, the learning pattern still centred on the teacher hinders the formation of a participatory and conducive learning environment for the growth of student integration.

Integration-based learning activities in Trensains should be designed with a contextual approach and emphasise problem solving that is both scientific and spiritual. Strategies such as problem-based learning, collaborative learning, and HOTS (High Order Thinking Skills) type questions linked to real phenomena and revealed values can be effective alternatives. However, its implementation is still limited, both in terms of teacher readiness and other supporting devices. Therefore, to optimise the program, teachers need further guidance in compiling methods, strategies, and evaluation instruments based on the principles of integration of science and faith. In this way, integration is not only a tool for reading and understanding information, but also a means of developing character and 21st-century skills that align with the main objectives of the Trensains program.

Conclusion

Implementing the Trensains program that integrates science and divine revelation values shows significant results in shaping students' conceptual understanding, analytical skills, and spiritual awareness. The learning strategies have led to a holistic scientific-spiritual approach. However, in its implementation, there are several obstacles, especially in integrating training and strengthening the role of teachers as integration facilitators. The integration training is not yet fully optimal due to limited understanding of the integrative approach, the lack of comprehensive assessment rubrics, and systemic support in facilities and cross-subject collaboration. Based on these findings, it is recommended that schools and Trensains program managers strengthen teacher coaching in compiling integrative teaching tools, and design more systematic integration training with measurable achievement indicators. Developing integration assessment rubrics relevant to integrating science and revelation is urgent, as is creating a learning environment that supports critical and reflective thinking skills. For further research, it is recommended that a longitudinal study be conducted on the impact of the Trensains program on the development of students' character and scientific-spiritual integration in the long term. In addition, further research is also needed to explore the most effective learning and evaluation models in the context of integrative education and examine the readiness of institutions and school ecosystems in supporting the sustainability of the Trensains program. The evaluation of the Trensains program can generate agreements on developing an integrated Islamic curriculum, increase teacher capacity through integrative pedagogical training, and contribute to the fight against the secularisation of science and the dehumanisation of education.

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data collection, and preparation of the final report. Hopefully, the results of this study can benefit education, especially in strengthening the implementation of the Trensains integrative curriculum.

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