Theological inquest of the teaching of life sciences within the Muslim schools

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ABSTRACT

The teaching of life sciences within the Islamic culture was observed in this investigation by instructors at the Association of Muslim Schools in the KZN region. The following question served as the basis for the investigation: Do Islamic schools teach life sciences from an Islamic perspective? The Association of Muslim Schools gave its approval after receiving ethical scrutiny. A questionnaire, interviews, and observations were used to gather data. The analysis of the data was conducted using an inductive methodology. The philosophy of Islam and its approaches to teaching the required Life Sciences curriculum served as the study's conceptual foundation. The results show that there is a problem with integrating religious knowledge into science teaching in Muslim ethos schools in South Africa. The Professional Teaching Model was an initiative to close the gap caused by educational dualism.

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Introduction

Muslim and non-Muslim employees make up the Association of Muslim Schools (AMS) personnel. As a result, a non-Muslim instructor may not teach life sciences from an Islamic perspective, and an instructor who is Muslim may not Islamize their instruction for various reasons. Aswirna and Fahmi (2016) contend that regardless of the circumstance, Muslim knowledge must always be examined through the lens of Islamic values and beliefs. In light of the logistical constraints of the Association, this inquiry seeks to determine the best way to guarantee that learners at AMS can receive high-quality education with an Islamic foundation.

While the idea of Islamization of Science is just about thirty years old, the Islamization of the Knowledge process is thought to be one of the most significant intellectual trends of the 20th century (Madani, 2016). Due to the diversity of South African culture, schools strive to impart in their children not just the CAPS curriculum but values that go above and beyond it.

The Association of Muslim Schools (AMS) personnel, which consists of schools with over 20,000 pupils, hails from various Islamic traditions. The Association of Muslim Schools' mission is to offer a variety of high-quality services that will enable schools to deliver an education that is based on Islam. According to Yaacob (2018), the issue of educational dualism is one of the most critical problems modern Muslims face. According to Khan (2015), there are two types of knowledge related to religion and knowledge needed by the community. The problem with the streams mentioned above is that when there is a strong emphasis on religious education, the result is religious specialists who are unable to actively participate in society because they lack critical and creative thinking (Yaacob, 2018); meanwhile, national education creates professionals who are lacking in religious knowledge.

This study aims to develop a critical approach to the theological inquest of teaching life sciences within Muslim schools.
Literature Review

Islamic education covers all disciplines and is viewed as a form of worship in the religion of Islam. As a result, it is crucial to Islamize all sectors if you want to teach about Islam (Farhan, 1989). Islam is the Arabic word for surrender to God's will (AL-Abdulkareem, 2004). Islamic dual education is based on both the Islamic philosophy of knowledge and the western paradigm. The western paradigm offers a certain theory of knowing and a constrained world view because it is founded on materialism (Arif, 1987). Thus, theories of education would include curriculum, assessment, and teaching and learning (Farhan, 1989). While the Islamic epistemology is founded on the idea that all knowledge is derived from Allah (Arif, 1987), as a result, education is seen as a kind of worship and as such, a duty and responsibility for both the person and community (Farhan, 1989).

Islam was created at Mecca, which is now in Saudi Arabia, in the seventh century (Fouad, 2016). Islam is the religion with the fastest rate of growth in the world, according to Pew Research Center (2015). The Qur'an and Hadith are the two main sources of Islam, according to Marcotte (2006); the latter records the actions and sayings of the Prophet that came to be known as the "sunnah," or tradition of the Prophet. According to the Qur'an, humans were made out of dark, fermenting mud, clay, and pottery clay (Fouad, 2016). However, there are several disagreements between science and religion regarding science-related topics including evolution, stem cell research, and human reproductive technologies (Vaidyanathan et al. 2016). According to empirical research by Vaidyanathan et al. (2016), Muslim communities are adamant that their religion inspires and promotes scientific inquiry. This refutes Gould’s (1997) notion of "nonoverlapping magisteria" in a big way.

Teaching Life Sciences in an Islamic school during the fourth industrial revolution might be difficult, especially for non-Muslim teachers. The issue of educational dualism has become more pressing due to the global dominance of science and technology and the severe suppression of religion it has caused. has no room for religion, setting the stage for conflict and discontent with it. Islam, however, envisions a fundamental harmony with science (Kamali, 2003). Islamic education is divided into three main categories: madrassa schools that emphasize religious sciences; supplemental weekend and evening religious instruction; and thirdly, full-time day schools that incorporate a religious worldview while adhering to the required CAPS curriculum (Memon, 2011). The third sort of school in South Africa is the Association of Muslim Schools. As a result, the school aspires to foster a feeling of religion consciousness through fundamental convictions, customs, and an Islamic worldview that are ingrained throughout the school’s ethos, instruction, and curriculum (Memon, 2011).

Being a teacher requires specialized knowledge and abilities (Bullough, 2001). According to Kamali (2003), science is a field of knowledge that examines the physical universe, as well as natural events that can be observed, measured, and perceived by the senses. (2010) Sabrin Cultural norms that control how people transmit their values, collected knowledge, and life experiences to future generations are used in science education (Sabrin, 2010). There is no formal approved teacher education program for Islamic school teachers in nations like North America, Australia, Europe, and South Africa, according to empirical studies, despite the rise in the number of faith-based schools worldwide (Memon, 2011). According to Farahn (1989), Muslim educators at all levels are more westernized and less influenced by the Islamic vision, which results in a greater emphasis on teaching students about western culture. The Association of Muslim Schools in South Africa, however, employs both Muslim and non-Muslim teachers. These educators frequently resorted to conferences, workshops, and professional development to help them with their lesson plans (Memon, 2011).

In the context of education, pedagogy is frequently regarded as the methods teachers employ in the classroom to facilitate learning and teaching. Islamic pedagogy is a method for disseminating religious knowledge in order to instill Islamic principles and values (Diallo, 2012). Islamic pedagogy is described by Chown and Alam (2016) as an overall framework that characterizes excellence in Islamic education. According to Niyozov and Memon (2011), the fundamental tenets of Islam will continue to serve as the overall epistemological and ethical foundation for teaching from an Islamic perspective. Hence According to Memon (2011), an Islamic pedagogy must establish educational principles that permit flexibility in practice as well as a wide range of interpretations and adaptations. Chown and Alam (2016) claim that Islamic pedagogy emphasizes the "why" of Islamic education in order to be in line with "what" and "how" we teach and learn throughout the range of disciplines. The "why" encompasses the Islamic worldview as well as Islamic custom and instruction (Chowan and Alam, 2016). Islamic ideas regarding creation, existence, purpose, and destination form the basis of the Islamic worldview (Al-Attas, 2005). Islam places a strong emphasis on doing what is right rather than what is wrong. In addition, according to Sabrin (2010), when it came to rectifying errors generally, the prophet Muhammad (peace be upon him) emphasised to people the reasons why what they were doing was wrong rather than rushing to condemn them and, frequently, providing them with more suitable options.

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1 The Qur'an is the book that was verbatim preserved by Prophet Muhammad after being revealed to him between 610 and 632 AD in Makkah and Medina. God guarantees its reliability. Chapter (s) and verse (s) are indicated in Qur'anic quotations before the colon and after the colon, respectively. Q. 2:30, for instance, denotes chapter 2 and verse 30. (Khan, 2017).

2 A body of information known as hadith contains verified statements, deeds, and blessings of the Prophet Muhammad, peace be upon him (Khan, 2017).

3 The instructions from the Prophet Muhammad, peace be upon him, on how to put the Qur'an into practice (Sabrin, 2010).
The required Life Sciences CAPS curriculum includes lessons on genetic engineering, cloning, abortion, and evolution. Such portions can potentially cause problems for non-Muslim life sciences instructors at the Association of Muslim Schools and elsewhere in the world (Roth & Alexander, 1997; Brickhouse, Dagher, & Shipman, 2000; Cobern & Loving, 2002; Shipman, Brickhouse, Dagher, & Letts, 2002; Colburn & Henriques, 2006; Stolberg, 2007, 2008; Hokayem & BouJaoude, 2008), primarily because it contradicts Islam's tenets (Mansour, 2008). Mansour (2008) asserts that in order to educate life sciences from an Islamic perspective, one must actively verify facts, find out what hasn't been discovered, and then explain it in terms of religion. Nevertheless, a person's sociocultural viewpoint and personal religious experience (especially for non-Muslim teachers) are important factors in gaining and/or interpreting experiences, which in turn influences teachers' pedagogical ideas and classroom procedures (Brickhouse, Dagher, and Letts, 2002; Roth and Alexander, 1997). The way a teacher conveys a notion can have a significant impact on how well students comprehend how religion and controversial subjects like evolution can coexist (Barners & Brownell, 2017). The aim of Islamic school teachers, according to Chowan and Alam (2016), is to guide the students toward the Creator through an Islamic perspective.

But current studies have shown that instructors' epistemological perspectives on science have an impact on how science is conducted and presented in a teacher's classroom (Lederman, 1992). According to Lederman (1992), teachers' instructional practices and ideas are frequently congruent with their scientific epistemological perspectives. Based on their own experiences in the classroom over the years, teachers construct and develop theories about best practices in the classroom (Lotter et al., 2007). The development of Higher Order Thinking Skills (HOTS) is a necessary talent for the generation to be able to think critically and creatively, which is a tenet that Islam emphasizes, according to Othman and Kassim (2017). Thus, Memon (2007) proposes that in order to fulfill the intentions and goals of Islamic education in a western context, scientific teachers should be directed by the pedagogical principles of the Islamic tradition.

Theoretical Framework

The Islamic philosophy serves as the theoretical foundation for this inquiry, and this philosophy has a unique perspective on how science should be taught. Diagram 1 below depicts the issue that AMS is now facing. It is obvious that the gap needs to be bridged in order to sustain the association's fundamental vision. Teachers from all religious backgrounds teach at the Association of Muslim Schools (AMS) nowadays. Therefore, teachers' beliefs have an impact on how they educate (Dhurumraj, 2017). Teachers in these schools need resources that deliver the required CAPS curriculum and are united and integrated with the Islamic worldview. Additionally, these instructors must be trained in Islamic pedagogical methods for the Association of Muslim Schools' Life Sciences program in order to close the gap between teaching and keeping the association's aim of providing a high-quality, Islamically-based education.

![Diagram](https://example.com/diagram.png)

**Figure 1:** The Current State at the Association of Muslim Schools

Methodology

This research uses an ethnographic research design as part of its qualitative methodology. The art and science of ethnography is used to describe a group or culture (Sangasubana, 2011). Because the study's goal is to increase life science teachers at the Association of Muslim Schools' cultural understanding, this design is recommended.

The choice of the participating schools and their students is made through practical sampling (Life Science teachers). A minimum of one teacher from each of the five schools in the KZN region that were sampled participated in the study. Life science instructors from grades ten, eleven, and twelve took part. Techniques for gathering data include the use of surveys, interviews, and observations. Thematic analysis was used to analyze the data. Over the course of three days, teachers were questioned for at least 20 minutes each day.
Results
The data collected from participants questionnaires are shown below.

Table 1a: Percentage of Male and Female Teachers.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 %</td>
<td></td>
<td>71 %</td>
</tr>
</tbody>
</table>

Table 1b: Percentage of Life Sciences Teachers That Are Muslim and Non-Muslim.

<table>
<thead>
<tr>
<th></th>
<th>Muslim Life Sciences Teachers</th>
<th>Non-Muslim Life Science Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 %</td>
<td></td>
<td>86 %</td>
</tr>
</tbody>
</table>

Table 1c: Percentage of Life Sciences Teachers That Are Familiar with The Vision of AMS.

<table>
<thead>
<tr>
<th></th>
<th>Staff familiar with AMS vision</th>
<th>Staff unfamiliar with AMS vision</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 %</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Table 1d: Number of Years of Experience Teaching Life Sciences.

<table>
<thead>
<tr>
<th></th>
<th>0 – 5 years teaching</th>
<th>6 – 9 years teaching</th>
<th>10 years or more teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 %</td>
<td></td>
<td>14 %</td>
<td>57%</td>
</tr>
</tbody>
</table>

Table 1e: Number of Years of Experience Teaching Life Sciences at Ams.

<table>
<thead>
<tr>
<th></th>
<th>1 – 2 years</th>
<th>2 – 3 years</th>
<th>More than 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 %</td>
<td></td>
<td>14 %</td>
<td>57%</td>
</tr>
</tbody>
</table>

Table 1f: Percentage of Teachers That Engaged in Professional Development at Ams.

<table>
<thead>
<tr>
<th></th>
<th>Have you engaged in professional development to assist you in teaching Life Sciences from an Islamic perspective?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes – 0</td>
<td>No – 100 %</td>
</tr>
</tbody>
</table>

The results from the teacher interviews are provided below for a deeper understanding of the teachers’ perspective as per the tables below.

Question: What is your understanding/view/belief of being a teacher at an Islamic School?

Table 2: Teacher Responses to, “What is Your Understanding/View/Belief Of Being a Teacher at an Islamic School?”

i. “Use Islamic perspective.”

ii. “The need to adhere to the Vision and Mission of the school, allow learners to practice their religious beliefs while respecting other beliefs.”

iii. “To respect and be understanding of the ethos of the school individual religious beliefs and to be an example of a tolerant understanding.”

iv. “Ensure that teaching aids/approaches are in line with the Islamic ethos of the school”

v. “Being a non-Muslim educator my role is chiefly to deliver the curriculum, i.e. satisfy the DoE requirements and ensure that the learners are prepared for the examination at the end of matric.”

vi. “Nothing different from being in a public school. Follow an Islamic ethos – evolution do it, tell them (learners) you know what your belief is, but it has to be taught (the mandated curriculum).”

Question: Do you incorporate an Islamic perspective in your teaching? If YES, indicate how you do it. If NO, please indicate why.
Table 3: Teacher Responses to, “Do You Incorporate an Islamic Perspective in Your Teaching? If Yes, Indicate How You Do It. If No, Please Indicate Why”

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>“No, I am a non-Muslim. I have no Islamic knowledge.”</td>
</tr>
<tr>
<td>ii.</td>
<td>“No as a non-Muslim I am unable to do so due to my religious background”</td>
</tr>
<tr>
<td>iii.</td>
<td>“No”</td>
</tr>
<tr>
<td>iv.</td>
<td>“I do when learners are asked to contribute a verse etc., I am not able to do so on my own”</td>
</tr>
<tr>
<td>v.</td>
<td>“As far as possible I try to instil the correct values which are the same universally. Every lesson commences with a dua (prayer). Learners are asked to discuss important events and characteristics in the Islamic literature. Learners are given the opportunity to read the Qur’an in class – when time permits.”</td>
</tr>
<tr>
<td>vi.</td>
<td>“Each lesson starts with a dua (prayer), and I always emphasize having respect for the dua and the words being recited. Although I am non-Muslim I do share a belief in god, and readily incorporate healthy values and ethics into my lesson where appropriate. Cognisance is taken during important Islamic times e.g. Ramadaan (month of fasting) to allow for the reading of the Qur’an during lessons, provided class work is completed.”</td>
</tr>
</tbody>
</table>

Question: What are some of the challenges that you experience as a teacher in an Islamic school?

Table 4: Teacher Responses to, “What Are Some Of The Challenges That You Experience As A Teacher In An Islamic School?”

<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
</tr>
<tr>
<td>ii.</td>
</tr>
<tr>
<td>iii.</td>
</tr>
<tr>
<td>iv.</td>
</tr>
<tr>
<td>v.</td>
</tr>
</tbody>
</table>

Table 5: Teacher Responses to, “Would Pre-Developed Learning Material That Is Islamized Aid You In Your Teaching Of Life Sciences At AMS, Thereby Adhering To The Overarching Vision Of AMS?”

<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
</tr>
<tr>
<td>ii.</td>
</tr>
<tr>
<td>iii.</td>
</tr>
<tr>
<td>iv.</td>
</tr>
<tr>
<td>v.</td>
</tr>
<tr>
<td>vi.</td>
</tr>
</tbody>
</table>

Question: Would pre-developed learning material that is Islamized aid you in your teaching of Life Sciences at AMS, thereby adhering to the overarching vision of AMS?

All participants in this study indicated that they did not engage in professional development that equipped them to teach from an Islamic perspective. Further to this some teachers felt they would not be willing to do this, “… I would not be comfortable doing this and would not agree to do so either…”

Table 6: Observation Analysis – On The Incorporation of Islamic Teaching

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Topic</th>
<th>Islamic views incorporated in grade 10/11/12 lessons.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Muslim)</td>
<td>Ecosystems</td>
<td>No</td>
</tr>
<tr>
<td>2 (Non-Muslim)</td>
<td>Ecosystems</td>
<td>No</td>
</tr>
<tr>
<td>3 (Non-Muslim)</td>
<td>Ecosystems</td>
<td>No</td>
</tr>
<tr>
<td>4 (Non-Muslim)</td>
<td>Gaseous exchange</td>
<td>No</td>
</tr>
<tr>
<td>5 (Non-Muslim)</td>
<td>Gaseous exchange</td>
<td>No – Yes – teacher makes reference to “dua’s” (times of prayer). This had no connection to the topic being taught.</td>
</tr>
<tr>
<td>6 (Non-Muslim)</td>
<td>Evolution</td>
<td>No – teacher speaks of the Darwin’s theory of evolution and does not mention that the Qur’an disputes it.</td>
</tr>
<tr>
<td>7 (Non-Muslim)</td>
<td>Evolution</td>
<td>No</td>
</tr>
</tbody>
</table>
Discussion

According to the aforementioned findings, non-Muslim women make up the majority of the teaching faculty at AMS for the life sciences. Additionally, they have been teaching Life Sciences at the Association for little over three years and have been doing so for well over a decade. Interestingly, despite the fact that all instructors claimed to be familiar with the association's mission, their questionnaire replies showed that many of them did not include an Islamic perspective in their instruction, regardless of the grade level (table 6). The instructors' subject knowledge was found to be outstanding when this instruction was observed in the classrooms, and no teacher needed a textbook to complete the session. Only one teacher had included a component of the Islamic ethos in their class. These elements, however, have nothing to do with the Islamization of the material being taught. As a result, the teaching of life sciences does not adhere to Farahn's description of Islam (1989).

The majority of instructors acknowledged that being in an Islamic school forced them to include an Islamic perspective and the Islamic ethos into their instruction, as seen by their comments in table 2. Although some didn't care that they attended a multifaith school, these teachers thought their main responsibility was to teach the curriculum and get students ready for the National Senior Certificate Examination. As a result, teachers' ideas about teaching and learning are frequently cited as a barrier to the successful implementation of curricular reform, according to Morgan and Xu (2011).

The main thing the researcher sought for in the teacher-observed classrooms was the incorporation of Islamic viewpoints and views when teaching life sciences. However, the lesson observations did not support this (table 6). Although one teacher did include Islamic principles into his lesson—for example, by mentioning duas—it had nothing to do with the subject being covered. The subjects covered during the teaching included ecosystems in grade 10, evolution in grade twelve, and gaseous exchange in grade eleven. The teachers made no reference to the Qur'an in any of the lessons. The lecture was just introduced by the teacher, and the students simply followed their study guides. This was obviously not science education from an Islamic perspective because it demanded active fact-checking, the discovery of the unknown, and the justification of it through faith (Mansour, 2011).

No teacher was able to include the Islamic perspective in their instruction of the offered life science subject, according to the teacher replies in table 3 and the teacher observations. The first was that non-Muslim teachers were unable to do so because it went against their cultural and religious views (table 3, responses g, h, i, r; and table 5, responses u, w); the second was that those who attempted to connect Islamic concepts to the prescribed curriculum were unsuccessful. However, some educators made an effort to include the Islamic philosophy into their lessons by starting with a prayer (dua) or allowing students to read from the Quran when time allowed. The material being taught was not being Islamized.

According to the replies from the teacher interviews in Table 4, many of them said that teaching contentious subjects like evolution at the Association of Muslim Schools was the most difficult undertaking for life sciences instructors. Because of this; Deniz and Borgerding (2018) claimed that when teaching the idea of evolution, life sciences teachers must take into account conceptual, epistemological, worldview/religious, and social/cultural variables all at once. This should be the standard for all themes in the Life Sciences curriculum across all grades, according to the association of Muslim schools' vision. This could also explain why certain kids in some schools treat non-Muslim teachers with disrespect (table 4 responses p and q). Additionally, the teaching staff reported a lack of professional development that sufficiently aided them in how to instruct from an Islamic perspective (table 1 response f). Professional development is crucial for enhancing teachers' content knowledge, context awareness (in this case, teaching in a Muslim school), and learner comprehension (Dhurumraj, 2017).

The National Curriculum Statement for Life Sciences seeks to develop in students critical and inventive thinking (DBE, 2011). According to Othman and Kassim (2017), learners are not developing these skills, which include Higher Order Thinking Skills (HOTS), as a result of the present classroom procedures used by teachers. As a result, they are going against the Islam's emphasis on the development of critical and imaginative thinking (Othman and Kassim, 2017). Teachers appeared at ease utilizing prescribed CAPS-approved course materials (table 5). Life sciences students of all grades used study guides in all of the schools involved in this study. This manual, which comprised the whole CAPS syllabus that students were supposed to study for the year, was utilized every day. Despite the fact that some people only gave a simple "yes" in response to the question (table 5), they did not want to elaborate.

Moving forward

It will be a monumental undertaking to Islamize the Life Sciences curriculum as well as any other topic curriculum. The Association of Muslim Schools employs a variety of teachers; the pedagogy employed must consider both the respect of the non-Muslim teacher as well as the Islamic perspective with effective instruction. To alter the attitudes and/or beliefs of teachers, they must undergo professional development. This would not only lower the high employee turnover rate generally but also enable all teachers to carry out their daily duties in an effective and efficient manner. However, the social perspective and the individual's willingness must be considered.
As a result, I created a paradigm known as the Professional Teaching Model for AMS, which is depicted in figure 2.

![Figure 2: The Professional Teaching Model for AMS.](image)

Conceptualising the model above, teachers are required to prepare for lessons. Simultaneously, learners are required to engage in their reading of the Qur’an as part of the Islamic practices. Thus, learners should be able to integrate their knowledge of the Qur’an with their mandated curriculum.

The above model caters for all staff at the Association of Muslim Schools by encompassing,

i. A mutual respect for the religious beliefs and practices of all staff i.e. non-Muslim teachers need not divulge in areas of Islam that they may be uncertain and/or uncomfortable teaching.

ii. It advocates active learner involvement in the lesson – either through the use of power point or poster presentations. The rationale for the specified presentations is to ensure active involvement and posters can be later displayed in the classroom reflecting the culture of Islam and its beliefs in the areas of Life Science.

iii. The model is versatile segments A and B are interchangeable - it allows teachers the opportunity to begin their mandated curriculum first or learners to present an Islamic perspective first.

iv. Segment C, is attained when segments A and B are carried out effectively.

v. The model alleviates the immediate need for Islamised curriculum material – provided there is a concerted effort from all parties to employ it.

Ultimately leading to the delivery of an Islamically based-education of the highest standard and quality thereby maintaining the Vision of the Association of Muslim Schools.

**Conclusion**

Most schools in the Association of Muslim Schools teach life sciences in much the same way as any other public school does; they do not, however, do so from an Islamic perspective. As a result, this results in students who lack religious understanding, strengthening educational dualism. Most non-Muslim teachers reported hostility to introduce Islamic viewpoints into their teaching due to a lack of understanding and/or sociocultural perspectives. These educators have substantial subject-matter knowledge. However, there needs to be more Islamic pedagogy because there is a need for more professional development (for those eager to include an Islamic perspective in their teaching). Teachers all around the country felt extremely comfortable using the prescribed curricular materials. Thus they ignored any other materials. Therefore, it is doubtful that an Islamized Science curriculum would be implemented. According to the established paradigm, a joint effort from all association stakeholders is needed to eliminate educational dualism.

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**Institutional Review Board Statement:** Ethical review and approval were obtained for this study.

**Data Availability Statement:** The data presented in this study are available on request from the corresponding author. The data are not publicly available due to privacy.

**Conflicts of Interest:** The authors declare no conflict of interest.
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