

Self-Concept, Self-Efficacy, and Critical Thinking Skills among Islamic Senior High School Students in Indonesia

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Abstract

This study examines the relationship between self-concept, self-efficacy, and critical thinking skills among Islamic senior high school students in Indonesia. Using a quantitative survey design, the study involved 64 students of Madrasah Aliyah Negeri 1 Darussalam, Ciamis, Indonesia. Data were collected through questionnaires measuring self-concept and self-efficacy, while students' critical thinking skills were measured using a test instrument. The data were analyzed through correlational statistics to determine the relationship between each independent variable and critical thinking skills, as well as their simultaneous relationship. The findings show that self-concept has a positive correlation with critical thinking skills, with a correlation coefficient of 0.681. Self-efficacy also shows a positive correlation with critical thinking skills, with a coefficient of 0.574. When analyzed simultaneously, self-concept and self-efficacy have a stronger relationship with critical thinking skills, indicated by a multiple correlation coefficient of 0.736. These findings suggest that students' critical thinking skills are not merely shaped by cognitive instruction, but also by how students perceive themselves and how strongly they believe in their academic capacity. The study highlights the importance of integrating psychological support, active learning, Islamic values, and reflective pedagogy in Islamic senior high school education.

Keywords

Self-concept, self-efficacy, critical thinking skills, Islamic senior high school, Islamic education

Abstrak

Penelitian ini mengkaji hubungan antara konsep diri, efikasi diri, dan kemampuan berpikir kritis siswa madrasah aliyah di Indonesia. Penelitian menggunakan desain survei kuantitatif dengan melibatkan 64 siswa Madrasah Aliyah Negeri 1 Darussalam, Ciamis, Indonesia. Data dikumpulkan melalui angket untuk mengukur konsep diri dan efikasi diri, sedangkan kemampuan berpikir kritis siswa diukur melalui instrumen tes. Data dianalisis dengan statistik korelasional untuk mengetahui hubungan masing-masing variabel independen dengan kemampuan berpikir kritis, serta hubungan keduanya secara simultan. Hasil penelitian menunjukkan bahwa konsep diri memiliki hubungan positif dengan kemampuan berpikir kritis, dengan koefisien korelasi sebesar 0,681. Efikasi diri juga memiliki hubungan positif dengan kemampuan berpikir kritis, dengan koefisien korelasi sebesar 0,574. Ketika dianalisis secara simultan, konsep diri dan efikasi diri memiliki hubungan yang lebih kuat dengan kemampuan berpikir kritis, ditunjukkan oleh koefisien korelasi ganda sebesar 0,736. Temuan ini menunjukkan bahwa kemampuan berpikir kritis siswa tidak hanya dibentuk oleh

pembelajaran kognitif, tetapi juga oleh cara siswa memahami dirinya dan keyakinannya terhadap kemampuan akademik. Penelitian ini menegaskan pentingnya dukungan psikologis, pembelajaran aktif, nilai-nilai Islam, dan pedagogi reflektif dalam pendidikan madrasah aliyah.

Keywords

Konsep diri, efikasi diri, kemampuan berpikir kritis, Madrasah Aliyah, pendidikan Islam

Introduction

Contemporary education is increasingly expected to prepare students not only to remember information, but also to understand themselves as learners, believe in their own academic capacity, and think critically when facing problems. This expectation becomes even more important in Islamic senior high schools, where education is not limited to intellectual training. It also involves moral formation, spiritual awareness, social responsibility, and the cultivation of disciplined character. In this sense, student achievement cannot be reduced to test scores alone. It is also shaped by how students perceive who they are, how confident they feel when dealing with academic tasks, and how well they are able to evaluate ideas with care and responsibility.

Fachmi et al. (2019) suggest that students' self-related perceptions play an important role in shaping school engagement and learning aspiration. This point is relevant because self-concept is not merely a psychological label attached to students. It is a living perception through which students interpret their strengths, limitations, possibilities, and position within the learning environment. A student who sees himself or herself as capable, valued, and academically meaningful may approach learning differently from a student who feels inadequate from the beginning. This may sound simple, but in classroom reality it is often decisive.

Self-efficacy is equally important. Novinta and Partana (2021) describe self-efficacy as closely related to students' confidence, persistence, and performance in academic tasks. In practical terms, self-efficacy refers to students' belief that they can complete a task successfully. It does not mean that students are always certain or free from anxiety. Rather, it reflects their inner judgment about whether effort is meaningful and whether difficulty can still be overcome. In Islamic educational settings, this belief may interact with values such as perseverance, responsibility, humility, and trust in disciplined effort.

Critical thinking skills occupy another crucial position in this discussion. Mardani et al. (2021) indicate that critical thinking remains a major concern in Indonesian educational contexts, particularly because learning practices do not always provide sufficient space for questioning, reasoning, argumentation, and reflective judgment. Critical thinking, in this article, is understood as the ability to analyze information, evaluate arguments, identify relationships, draw reasonable conclusions, and solve problems in a thoughtful manner. It is not an attitude of rejecting authority or tradition. In Islamic education, critical thinking should be seen as a disciplined intellectual virtue, one that allows students to think carefully while remaining ethically and spiritually grounded.

Islamic senior high schools in Indonesia provide a particularly meaningful context for examining these constructs. Rusdi et al. (2019) show that Islamic values, including humility or *tawāḍu'*, can shape students' academic self-efficacy and personal development. This suggests that psychological and cognitive development in Islamic education does not occur

in a neutral space. It is influenced by religious norms, teacher expectations, peer culture, family support, and institutional identity. For this reason, it is reasonable to argue that self-concept, self-efficacy, and critical thinking skills should be examined not as isolated variables, but as interconnected dimensions of student development.

Although self-concept, self-efficacy, and critical thinking skills have been widely discussed in educational research, they are often examined separately. Studies on self-concept usually focus on students' academic identity, self-perception, or school engagement. Studies on self-efficacy often emphasize motivation, persistence, or learning performance. Meanwhile, studies on critical thinking tend to concentrate on instructional models, assessment strategies, or students' reasoning ability. Each of these strands is valuable. Yet something important may be missed when these constructs are separated too sharply.

Solikah et al. (2023) argue that self-efficacy has a meaningful relationship with students' critical thinking, particularly because students who believe in their own learning capacity tend to participate more actively in complex cognitive tasks. This relationship raises an important question. Could students' ability to think critically be strengthened not only through instructional strategy, but also through the development of positive self-concept and strong academic self-efficacy? The question is worth asking, especially in Islamic senior high schools where learning is expected to integrate cognitive competence, moral responsibility, and spiritual character.

In the context of Madrasah Aliyah Negeri 1 Darussalam, Ciamis, Indonesia, this issue becomes empirically relevant. The students are situated within an Islamic educational environment that combines general academic learning with religious formation. Their critical thinking skills may therefore be influenced by more than classroom instruction alone. They may also be shaped by how they understand themselves as learners and how strongly they believe in their ability to complete demanding academic tasks. This is the main problem addressed in this study.

Previous research has provided useful insights into the importance of self-concept, self-efficacy, and critical thinking skills. However, there remains a limited number of studies that integrate these three constructs within the specific context of Indonesian Islamic senior high school education. In many cases, psychological variables and cognitive skills are studied without sufficient attention to the cultural and religious environment in which students learn. This creates a conceptual gap, because Islamic education has its own moral vocabulary, pedagogical expectations, and institutional culture.

Karwadi et al. (2025) emphasize that critical and integrative pedagogy in Islamic education can connect intellectual development with Islamic values and student identity. This perspective is important because critical thinking in Islamic schools should not be understood merely as a technical skill. It also involves ethical reasoning, humility in seeking knowledge, openness to dialogue, and responsibility in making judgments. Yet empirical research has not always examined how students' self-concept and self-efficacy may support or limit the development of such critical thinking skills.

Another gap lies in the limited empirical attention to the simultaneous relationship between self-concept, self-efficacy, and critical thinking skills. It is one thing to say that self-concept is related to learning, or that self-efficacy influences achievement. It is another thing to examine how self-concept and self-efficacy together relate to students' critical thinking skills. This study responds to that gap by using a quantitative survey design involving 64 students and by analyzing the relationships between self-concept, self-efficacy, and critical thinking skills in an Islamic senior high school setting.

This study aims to analyze the relationship between self-concept, self-efficacy, and critical thinking skills among Islamic senior high school students in Indonesia. More specifically, it examines the relationship between self-concept and critical thinking skills, the relationship between self-efficacy and critical thinking skills, and the simultaneous relationship between self-concept and self-efficacy with critical thinking skills.

The study was conducted at Madrasah Aliyah Negeri 1 Darussalam, Ciamis, Indonesia, involving 64 students as research participants. Self-concept and self-efficacy were measured using questionnaires, while critical thinking skills were measured using a test instrument. Through this design, the study seeks to provide a more evidence-based understanding of how students' psychological dispositions are related to their cognitive performance.

This study contributes to Islamic educational psychology by showing that students' critical thinking skills need to be understood in relation to their self-concept and self-efficacy. It also contributes to critical pedagogy by suggesting that the development of critical thinking cannot rely only on instructional techniques. Students also need confidence, a healthy academic self-perception, and a supportive learning environment that allows them to think, ask, doubt carefully, and reason responsibly.

In addition, this study contributes to culturally responsive education. Rusdi et al. (2019) and Karwadi et al. (2025) remind us that Islamic values and educational culture are not peripheral elements in student development. They may shape how students understand themselves, how they approach academic challenges, and how they engage in reflective thinking. Therefore, the findings of this study are expected to offer a more integrated framework for understanding student development in Islamic senior high schools, particularly by connecting psychological readiness, cognitive competence, and the moral-spiritual orientation of Islamic education.

Literature Review

Self-Concept in Islamic Senior High School Students

Self-concept generally refers to students' perception, evaluation, and interpretation of themselves. It includes how they understand their abilities, limitations, social roles, emotional condition, and personal value. In the educational context, self-concept is important because it influences how students approach learning tasks, interact with teachers and peers, respond to failure, and imagine their future. Fachmi et al. (2019) show that students' self-concept is closely related to school engagement and academic aspiration, suggesting that how students see themselves may affect how seriously they participate in the learning process. A student who believes that he or she is capable of learning is more likely to show persistence, ask questions, and remain involved in academic activities, even when the learning situation is not easy.

Academic self-concept is one of the most visible dimensions of student self-concept. It refers to students' perception of their academic competence, including their belief about whether they are intelligent, capable, disciplined, and able to complete school tasks. In Islamic senior high schools, academic self-concept is shaped not only by grades or test performance, but also by teacher feedback, classroom expectations, peer comparison, and students' own experiences of success or failure. Yendi et al. (2025) indicate that academic self-concept may influence students' aspiration and readiness for future educational pathways. This means that students' academic self-perception does not stay inside the classroom. It can affect how they imagine higher education, career possibilities, and their broader life direction.

Social self-concept is also important, particularly because adolescent students develop their identity through interaction with peers, teachers, and the school community. Susilawati et al. (2025) suggest that social competence, emotional regulation, and engagement in student organizations are related to how students understand themselves socially. In Islamic senior high schools, this social dimension often develops within a moral environment that values respect, cooperation, modesty, and responsibility. Students do not only ask whether they are accepted by their peers. They also learn whether their behavior is considered appropriate, respectful, and aligned with the moral culture of the school. It is therefore difficult to separate social self-concept from ethical formation.

Religious self-concept adds another layer to the discussion. In Islamic educational settings, students' perception of themselves is often connected with their religious identity, worship practices, moral discipline, and sense of belonging to the Muslim community. French et al. (2008) argue that religious involvement may support social competence, academic achievement, emotional regulation, and self-esteem. This is relevant for Islamic senior high school students because their self-understanding is shaped by both academic expectations and religious norms. They may see themselves not only as learners of mathematics, science, language, or social studies, but also as young Muslims who are expected to internalize Islamic values in everyday behavior. In this sense, religious self-concept can become a source of motivation, restraint, confidence, and moral direction.

The role of school climate should not be underestimated. A supportive school climate can strengthen students' self-concept because it provides emotional safety, recognition, and meaningful interaction. Wildan and Qibtiyah (2020) emphasize that school environment and parenting patterns contribute to students' psychological and social development. In Islamic senior high schools, school climate includes more than academic facilities or classroom management. It also includes the quality of teacher-student relationships, the consistency of moral guidance, the presence of religious routines, and the extent to which students feel respected as developing persons. If the school environment is too punitive or excessively hierarchical, students may become obedient but not necessarily confident. If it is supportive and dialogical, students may develop a healthier sense of self.

Family support and parenting style are also central in shaping students' self-concept. Hasanah et al. (2019) show that democratic or authoritative parenting is associated with better self-esteem and lower academic stress. This finding is important because students bring their family experiences into the school environment. A student who receives emotional support, reasonable discipline, and trust at home may be better prepared to face academic demands. By contrast, students who experience excessive pressure, neglect, or inconsistent parenting may develop a fragile self-concept, even if they appear academically capable. In Islamic societies, family is often the first site of religious and moral education. It teaches children how to see themselves before the school formally shapes them as students.

Parenting styles in Islamic contexts may also influence the balance between obedience and autonomy. Wildan and Qibtiyah (2020) suggest that democratic parenting can promote independence, religiosity, and responsibility. This is worth noting because Islamic education sometimes faces a delicate pedagogical question. How can students be guided to respect authority while still developing confidence, initiative, and reflective thinking? A healthy self-concept may emerge when students are not merely told to obey, but are also invited to understand, reflect, and take responsibility for their choices. This kind of self-concept is more stable because it is built through both guidance and internal awareness.

Islamic values play a distinctive role in student identity formation. Jasiah et al. (2024) explain that the integration of Islamic values into educational practice supports character

development and identity formation. In this framework, self-concept is not only psychological but also ethical and spiritual. Students learn to understand themselves through values such as honesty, humility, perseverance, responsibility, and respect for knowledge. Rusdi et al. (2019) specifically highlight humility or *tawāḍu'* as a culturally meaningful value related to students' academic self-efficacy. Although humility may appear to be a moral quality, it can also influence how students position themselves in learning. A humble student may be more open to feedback, more willing to learn from mistakes, and less defensive when facing difficulty.

At the same time, Islamic values should not be understood as automatically producing a positive self-concept. The process depends on how those values are taught, modelled, and experienced by students. If religious values are presented only as external demands, students may comply without developing deeper self-understanding. However, when Islamic values are internalized through meaningful learning, teacher role modelling, reflective dialogue, and supportive school culture, they may strengthen students' moral identity and academic confidence. Aliyah et al. (2024) suggest that social emotional learning adapted to the Islamic paradigm can support self-awareness, self-management, and responsible decision-making. This provides a useful bridge between psychological development and Islamic moral education.

The literature therefore suggests that self-concept among Islamic senior high school students is multidimensional. It involves academic confidence, social belonging, emotional stability, religious identity, family support, and school culture. More importantly, these dimensions are not separate compartments. They interact with each other in students' everyday learning experiences. A student's academic self-concept may be strengthened by supportive parents, weakened by negative peer comparison, repaired by encouraging teachers, and deepened by religious values that give meaning to effort and discipline. This is why self-concept deserves attention in this study, especially as one of the independent variables that may relate to students' critical thinking skills. In a simple but important sense, students may think more critically when they first believe that they are capable, valued, and morally responsible learners.

Self-Efficacy and Student Learning in Islamic Education

Self-efficacy occupies a central position in student learning because it concerns students' belief in their ability to organize effort, complete academic tasks, and face learning difficulties with a reasonable degree of confidence. It is not exactly the same as self-confidence in a general sense. Self-efficacy is more specific. It refers to students' judgment about whether they can perform a particular task, solve a particular problem, or achieve a particular learning goal. Novinta and Partana (2021) explain that self-efficacy is closely related to students' motivation, persistence, and academic performance, especially when they are confronted with demanding learning situations. In other words, students who believe that they are capable of learning tend to remain involved longer, even when the task is difficult or the result is not immediately visible.

Academic self-efficacy is especially relevant in Islamic senior high school education because students are required to engage with both general academic subjects and religious studies. They are expected to understand scientific concepts, solve mathematical problems, read texts critically, and at the same time internalize Islamic values in their learning behavior. This creates a rich but also demanding educational experience. Destiniar et al. (2024) and Wuryaningsih et al. (2025) indicate that self-efficacy may appear through task orientation, effort, persistence, belief, and performance. These dimensions are important because learning is rarely linear. Students may begin with interest, then face confusion, then

doubt their own ability, and only after repeated effort begin to understand the material. It is precisely in such moments that self-efficacy becomes visible.

Task persistence is one of the most concrete manifestations of self-efficacy. Students with higher self-efficacy usually do not give up easily when they encounter difficult questions, unfamiliar concepts, or disappointing scores. They may feel anxious, of course. That is normal. Yet they tend to interpret difficulty as something that can be managed rather than as evidence of personal failure. Zarkasyi and Partana (2020) show that self-efficacy is associated with students' learning outcomes in science-related learning, while Farihah and Rakasiwi (2020) suggest that self-efficacy also plays a role in mathematics learning. These findings matter because mathematics and science often require sustained reasoning, abstraction, and problem solving. If students do not believe that their effort can make a difference, their cognitive engagement may stop before deeper thinking begins.

In religious education, self-efficacy also has a distinctive character. It is not only related to whether students believe they can memorize, understand, or explain religious materials. It is also related to whether they believe they can live according to the values they learn. This makes self-efficacy in Islamic education somewhat broader than academic performance alone. A student may feel capable of completing an assignment, but he or she may also need confidence to practice discipline, honesty, responsibility, and respectful interaction. Anjaswarni et al. (2021) suggest that religious determinants may contribute to self-efficacy by strengthening self-control and conviction. This point is important, because Islamic education often frames learning as a moral and spiritual responsibility, not merely as an individual academic pursuit.

Humility or *tawāḍu'* is a particularly meaningful concept in this discussion. At first glance, humility may seem distant from self-efficacy. One may ask, how can humility strengthen confidence? The answer is not as contradictory as it may appear. Rusdi et al. (2019) show that humility is positively related to academic self-efficacy, suggesting that students who possess humility may be more open to learning, more receptive to correction, and less defensive when they face mistakes. In an Islamic educational context, humility does not mean weakness or low self-worth. Rather, it may function as an ethical disposition that allows students to acknowledge their limitations while still believing that they can improve through effort, prayer, guidance, and disciplined learning.

This relationship between humility and self-efficacy deserves careful attention. If self-efficacy is understood only as individual confidence, it may become too psychological and perhaps too individualistic. But in Islamic education, confidence is ideally grounded in responsibility, self-discipline, and awareness before God. Faizal et al. (2025) and Dwidiyanti et al. (2022) suggest that spiritual mindfulness and Islamic counseling practices can enhance resilience and self-efficacy. Such findings indicate that students' belief in their ability may be strengthened not only through cognitive training, but also through spiritual reflection and moral encouragement. In our view, this is one of the distinctive contributions of Islamic education to the discussion of self-efficacy.

Teachers play a decisive role in strengthening students' self-efficacy. Through feedback, encouragement, modelling, and classroom expectations, teachers may help students reinterpret difficulty as part of learning rather than as a sign of incapacity. Wildan and Qibtiyah (2020) emphasize that supportive school environments contribute to students' psychological and social development. In practice, this means that students need teachers who do not merely deliver content, but also create learning situations in which students feel safe to try, fail, revise, and try again. This is not a small matter. In classrooms where mistakes are immediately judged or ridiculed, self-efficacy may weaken quietly.

Parents and family environments also influence self-efficacy. Students who receive emotional support, structured guidance, and reasonable autonomy at home may develop stronger confidence in managing school tasks. Yosef et al. (2025) point to the importance of family communication and supportive relationships in shaping students' educational development. In Islamic families, parental support often includes religious encouragement, moral advice, and expectations of discipline. These forms of support can become powerful resources when they are expressed with warmth and proportion. However, when expectations are too rigid or excessively controlling, they may produce pressure rather than confidence. This balance is important and cannot be ignored.

The learning environment, therefore, should be understood as an ecology of self-efficacy. It includes teachers, parents, peers, school culture, religious values, and the students' own previous learning experiences. Self-efficacy does not grow from a single source. It is gradually formed through repeated encounters with success, difficulty, feedback, comparison, encouragement, and reflection. For Islamic senior high school students, self-efficacy becomes more meaningful when it is connected with perseverance, responsibility, humility, and confidence grounded in religious values. This is why self-efficacy is treated in this study as a key independent variable. It may help explain why some students are more willing than others to engage in demanding cognitive activities, including critical thinking.

Critical Thinking Skills in Islamic Senior High Schools

Critical thinking skills are among the most frequently emphasized competencies in contemporary education, but they are also among the most difficult to cultivate consistently. Critical thinking refers to the ability to analyze information, evaluate arguments, interpret evidence, reason logically, reflect on assumptions, and make responsible judgments. It is not simply the ability to criticize. It is also not a habit of rejecting tradition, authority, or religious teaching. In Islamic education, critical thinking should be understood as disciplined reasoning that is ethically guided and intellectually responsible. This distinction is important because the term critical thinking is sometimes misunderstood as if it necessarily means skepticism without moral direction.

Mardani et al. (2021) report that students' critical thinking skills in Indonesian educational contexts remain a serious concern, while Umam et al. (2020) and Neswary et al. (2023) indicate that many students still demonstrate low to moderate levels of critical thinking. These findings suggest that the problem is not merely individual. It may also be instructional and structural. Students cannot be expected to think critically if classroom learning rarely gives them opportunities to ask questions, compare arguments, evaluate evidence, or explain their reasoning. Critical thinking needs practice. It grows through repeated intellectual activity, not through slogans.

One major challenge in developing critical thinking is the persistence of passive learning traditions. In many classrooms, including some Islamic senior high school settings, learning is still dominated by teacher explanation, memorization, note taking, and reproduction of information. This does not mean that memorization is useless. In Islamic education, memorization has a legitimate place, especially in relation to Qur'anic verses, hadith texts, and foundational religious knowledge. Yet memorization alone is not sufficient. Anwar et al. (2024) suggest that limited teacher training and passive learning environments may hinder students' critical thinking development. The issue, therefore, is not whether students should remember knowledge, but whether they are also guided to understand, connect, question, and apply it.

Textbook limitations also affect the development of critical thinking. Solihati and Hikmat (2018) show that learning materials do not always provide adequate tasks that

require students to engage in higher-level thinking. Salampessy and Suparman (2020) similarly point to the need for learning resources that better support Higher Order Thinking Skills. Higher Order Thinking Skills, often abbreviated as HOTS, refer to cognitive processes such as analyzing, evaluating, and creating. These skills are different from lower-level recall because they require students to process information more deeply. If textbooks mostly ask students to identify, repeat, or define, then critical thinking may remain underdeveloped even when curriculum documents formally emphasize it.

Teacher competence is another crucial factor. Zulmaulida et al. (2018) and Kosasih et al. (2022) indicate that teachers need stronger pedagogical capacity to design learning activities that foster critical thinking. This includes the ability to ask open-ended questions, guide discussion, develop problem-based tasks, assess reasoning processes, and connect subject matter with real-life issues. In Islamic senior high schools, teacher competence also includes the ability to integrate critical reasoning with Islamic values. A teacher may ask students not only what an answer is, but why it is reasonable, what evidence supports it, what ethical implications it carries, and how it relates to the broader purposes of Islamic education.

The integration of Islamic values and critical pedagogy is therefore highly relevant. Karwadi et al. (2025) argue that critical-integrative pedagogy can connect critical thinking with Islamic identity and student engagement. This approach is valuable because it avoids two extremes. On the one hand, critical thinking should not be reduced to a purely technical cognitive skill, detached from values. On the other hand, Islamic values should not be taught in a way that closes intellectual inquiry. A more balanced approach is possible. Students can be encouraged to reason carefully, evaluate arguments fairly, and ask meaningful questions while remaining grounded in humility, respect, and moral responsibility.

Problem-based learning and inquiry-oriented strategies are often recommended to support critical thinking. Shandy Narmaditya et al. (2018) show that problem-based learning encourages students to engage in problem solving, questioning, and real-world application. In Islamic senior high schools, this kind of learning can be adapted to religious, social, scientific, and ethical issues that are close to students' lives. For example, students may be invited to analyze environmental responsibility from both scientific and Islamic ethical perspectives, or to examine social media behavior through the lens of evidence, ethics, and religious values. These examples are modest, but they show that critical thinking can be cultivated without separating students from their moral and spiritual context.

It should also be noted that critical thinking is closely related to students' psychological readiness. Students who lack confidence may hesitate to express their reasoning. Students who perceive themselves as incapable may avoid challenging tasks. Students who fear being wrong may remain silent, even when they have ideas. This is why the present study connects critical thinking skills with self-concept and self-efficacy. The development of critical thinking is not only a matter of curriculum or teaching method. It is also related to whether students see themselves as capable learners and whether they believe their effort can lead to better understanding.

In Islamic senior high schools, critical thinking should ultimately contribute to holistic student development. It should help students become more careful in judgment, more responsible in speech, more reflective in action, and more mature in responding to differences. Amirudin et al. (2026) and Zul et al. (2026) suggest that reflective pedagogy can strengthen moral reasoning, self-regulation, and value internalization. This means that critical thinking in Islamic education is not merely about cognitive sharpness. It is also about ethical depth. It trains students to think with evidence, but also with conscience.

The literature therefore indicates that critical thinking skills among Islamic senior high school students are shaped by multiple factors, including learning tradition, textbook quality, teacher competence, HOTS-based instruction, classroom climate, and the integration of Islamic values. The challenge is substantial, but it is not impossible to address. If students are given supportive instruction, meaningful problems, reflective dialogue, and a learning environment that values both reason and morality, critical thinking can develop as part of Islamic educational formation. This is the point at which the present study enters the scholarly discussion. It examines whether students' self-concept and self-efficacy are related to their critical thinking skills, thereby linking psychological readiness with cognitive performance in an Islamic educational setting.

Method

Research Design

This study employed a quantitative survey design to examine the relationship between self-concept, self-efficacy, and critical thinking skills among Islamic senior high school students. The survey design was considered appropriate because the study sought to measure students' psychological and cognitive variables through standardized instruments and to analyze the statistical relationships among them. More specifically, this study used a correlational approach, since the main purpose was not to manipulate classroom treatment, but to identify whether self-concept and self-efficacy were associated with students' critical thinking skills.

In this study, self-concept was positioned as the first independent variable, self-efficacy as the second independent variable, and critical thinking skills as the dependent variable. This structure allowed the study to examine three important relationships. The first was the relationship between self-concept and critical thinking skills. The second was the relationship between self-efficacy and critical thinking skills. The third was the simultaneous relationship between self-concept and self-efficacy, taken together, and students' critical thinking skills. Such a design is modest in scale, but it is useful for understanding how students' internal academic perceptions may relate to their ability to think critically.

The use of a quantitative approach also reflects the need to provide empirical evidence in the discussion of Islamic educational psychology. Concepts such as self-concept, self-efficacy, and critical thinking are often discussed normatively in educational discourse. That is understandable, especially in Islamic education where moral and spiritual considerations are central. However, it is also necessary to examine these constructs through measurable data, so that claims about student development are not based only on assumption or general impression.

Research Setting, Participants, and Instruments

The study was conducted at Madrasah Aliyah Negeri 1 Darussalam, Ciamis, Indonesia. This setting was selected because Islamic senior high schools represent an important educational space where general academic learning, religious instruction, moral formation, and student character development are integrated. In such a context, examining the relationship among self-concept, self-efficacy, and critical thinking skills becomes particularly relevant. Students are not only expected to master academic content, but also to develop disciplined reasoning, confidence in learning, and responsible moral awareness.

The participants of this study consisted of 64 students. The number of participants was relatively limited, but still meaningful for an exploratory correlational survey at the school level. It allows the study to capture a concrete empirical picture of students in a specific

Islamic educational institution. Of course, with this number of participants, the findings should be interpreted carefully. They may provide strong contextual insight, but they should not be generalized too broadly without further studies involving larger and more diverse samples.

Three research instruments were used in this study. The first instrument was a questionnaire designed to measure students' self-concept. This instrument focused on how students perceived themselves as learners, including their academic confidence, self-understanding, and sense of personal competence in the school environment. The second instrument was a questionnaire designed to measure students' self-efficacy. This instrument examined students' belief in their ability to complete academic tasks, face learning difficulties, and persist when encountering challenging situations. The third instrument was a test used to measure students' critical thinking skills. The test was intended to assess students' ability to analyze, evaluate, reason, interpret information, and solve problems in a reflective and responsible way.

The distinction between questionnaire and test instruments is important. Self-concept and self-efficacy are psychological variables, so they are more appropriately measured through students' responses to structured statements. Critical thinking skills, however, require a performance-based indication of students' reasoning ability. For that reason, a test instrument was used to obtain a more direct picture of students' cognitive skills.

Data Collection

Data were collected through the administration of questionnaires and a critical thinking test to the participating students. The self-concept and self-efficacy questionnaires were distributed to obtain students' responses regarding their perceptions of themselves and their beliefs about their academic abilities. The critical thinking test was administered to measure students' ability to engage in analytical and evaluative reasoning.

The data collection process was conducted in the school context, so it reflected students' actual educational environment. This point is worth noting. Students' responses were not detached from their everyday learning experience at Madrasah Aliyah Negeri 1 Darussalam. Their self-concept, self-efficacy, and critical thinking skills were shaped, at least partly, by the academic culture, teacher-student interaction, peer environment, and religious atmosphere of the school.

During the data collection process, students were expected to respond honestly to the questionnaire items and complete the critical thinking test according to their actual ability. Since the study involved psychological and cognitive variables, the quality of students' responses was important. A survey study of this kind depends heavily on the seriousness of participants in reading, understanding, and responding to each item. This is a normal limitation in survey-based research, but it does not reduce the value of the data when the procedure is conducted carefully.

Data Analysis

The data were analyzed quantitatively to determine the relationship between the independent variables and the dependent variable. The relationship between self-concept and critical thinking skills was examined by calculating the correlation coefficient between X1 and Y. The relationship between self-efficacy and critical thinking skills was examined by calculating the correlation coefficient between X2 and Y. In addition, the simultaneous relationship between self-concept and self-efficacy with critical thinking skills was examined by calculating the multiple correlation coefficient between X1 and X2 together with Y.

The analysis showed that the correlation coefficient between self-concept and critical thinking skills was 0.681. This value indicates a positive relationship, meaning that students with higher self-concept tended to demonstrate better critical thinking skills. The correlation coefficient between self-efficacy and critical thinking skills was 0.574, which also indicates a positive relationship. Meanwhile, the simultaneous correlation coefficient between self-concept and self-efficacy with critical thinking skills was 0.736. This suggests that the two independent variables, when considered together, had a stronger relationship with critical thinking skills than either variable considered separately.

These statistical findings were interpreted not merely as numerical results, but as indicators of a broader educational relationship. It would be too narrow to read the coefficients only as technical data. The numbers suggest that students' critical thinking skills may be connected to how they perceive themselves and how strongly they believe in their own learning capacity. In the context of Islamic senior high school education, this relationship is important because the development of critical thinking cannot be separated from students' psychological readiness, learning confidence, and the educational environment that shapes them.

Results and Discussion

Self-Concept and Self-Efficacy as Psychological Foundations of Student Learning

The findings of this study indicate that self-concept and self-efficacy are positively associated with students' critical thinking skills. The correlation coefficient between self-concept and critical thinking skills was 0.681, while the correlation coefficient between self-efficacy and critical thinking skills was 0.574. These values show that both psychological variables have meaningful relationships with students' cognitive performance, although self-concept appears to have a stronger relationship with critical thinking skills than self-efficacy in this particular sample. Since this study used a correlational survey design, the findings should not be interpreted as direct causal evidence. Even so, the pattern is difficult to ignore. Students who perceive themselves more positively and believe more strongly in their academic ability tend to demonstrate better critical thinking skills.

Fachmi et al. (2019) argue that self-concept is closely related to students' school engagement and academic aspiration, and this helps explain why self-concept showed a relatively strong relationship with critical thinking skills in this study. Self-concept functions as a psychological lens through which students interpret their learning experiences. Students who see themselves as capable learners are more likely to participate in classroom activities, respond to academic challenges, and engage with complex questions. This is important because critical thinking requires more than cognitive ability. It also requires the willingness to think, the courage to make judgments, and the confidence to face uncertainty. A student may have sufficient intellectual potential, but if he or she feels incapable from the beginning, that potential may not be expressed fully in learning tasks.

The correlation coefficient of 0.681 between self-concept and critical thinking skills suggests a moderately strong positive relationship. In practical educational terms, this means that students' perception of themselves may be connected to their ability to analyze, evaluate, and reason. The result is quite reasonable. Critical thinking often asks students to move beyond memorization. They need to compare ideas, identify assumptions, evaluate evidence, and sometimes defend their reasoning. Such activities can feel risky for students who do not have a stable academic self-concept. They may hesitate to answer, avoid difficult tasks, or

simply wait for the teacher's explanation. By contrast, students with a healthier self-concept may be more prepared to enter the uncertain space of thinking.

Self-efficacy also showed a positive relationship with critical thinking skills, with a correlation coefficient of 0.574. Novinta and Partana (2021) explain that self-efficacy is related to students' motivation, persistence, and academic performance, particularly when they encounter demanding learning situations. This finding is consistent with the present study. Critical thinking tasks often require persistence. Students must read carefully, understand the problem, consider alternative explanations, and sometimes revise their initial answer. These processes are not always comfortable. Students with stronger self-efficacy are more likely to believe that effort can lead to improvement. They may not always feel confident in a simple emotional sense, but they tend to believe that difficulty can be managed.

The slightly stronger relationship between self-concept and critical thinking skills compared with self-efficacy is also worth considering. Self-efficacy usually refers to students' belief in their ability to perform specific academic tasks, while self-concept is broader and more deeply connected with students' general perception of themselves as learners. It is possible that critical thinking skills are influenced not only by task-specific confidence, but also by students' broader academic identity. This interpretation should be made carefully, of course, because the sample consisted of 64 students from one Islamic senior high school. Still, the result provides a useful indication. Critical thinking may develop more effectively when students do not merely believe that they can complete a task, but also see themselves as meaningful, capable, and responsible learners.

In the context of Madrasah Aliyah Negeri 1 Darussalam, Ciamis, Indonesia, these findings have particular educational relevance. Islamic senior high school students learn within an environment that combines academic instruction, religious formation, social discipline, and moral expectations. Their psychological readiness for learning is shaped not only by classroom achievement, but also by teacher interaction, peer relationships, family background, and the religious culture of the school. Wildan and Qibtiyah (2020) emphasize that school environment and parenting patterns contribute to students' psychological and social development. This suggests that self-concept and self-efficacy are not formed in isolation. They are gradually built through repeated experiences of recognition, support, discipline, feedback, and trust.

Islamic values may also shape students' psychological foundations for learning. Rusdi et al. (2019) show that humility or *tawāḍu'* has a meaningful relationship with academic self-efficacy, and this point is especially relevant for Islamic education. At first, humility and academic confidence may appear to move in different directions. Yet in Islamic educational thought, humility does not mean passivity or low self-worth. It can mean openness to learning, readiness to accept correction, and awareness that knowledge requires discipline. In this sense, *tawāḍu'* may support self-efficacy because it allows students to face difficulty without excessive fear of failure. A humble student can admit not knowing something, but still continue learning. That is a small but important psychological strength.

Family support should also be taken seriously. Hasanah et al. (2019) indicate that democratic parenting is associated with better self-esteem and lower academic stress. This is relevant because students who receive balanced support at home may come to school with stronger emotional stability and greater learning confidence. They may be more willing to ask questions, complete assignments, and respond constructively to academic difficulty. In contrast, students who experience excessive pressure or limited emotional support may struggle to develop a positive self-concept, even when they have adequate cognitive ability.

Here, we can see that critical thinking is not only a matter of school instruction. It is also indirectly connected with the emotional and relational environment surrounding the student.

The role of school climate is equally important. A school climate that provides safety, encouragement, intellectual openness, and moral direction can strengthen students' readiness to think critically. If students are afraid of being wrong, they may avoid giving arguments. If they are used only to receiving answers, they may not learn to question. But if teachers create a classroom atmosphere where mistakes are treated as part of learning, students may become more confident in expressing their reasoning. Karwadi et al. (2025) argue that critical-integrative pedagogy in Islamic education can connect intellectual development with Islamic values and student identity. This kind of pedagogy is relevant because it allows students to think critically without feeling that critical reasoning is detached from their religious and moral commitments.

The present findings therefore suggest that self-concept and self-efficacy are not secondary variables in student learning. They are psychological foundations that may support students' academic engagement, persistence, and willingness to participate in cognitively demanding activities. In Islamic senior high schools, this relationship becomes even more layered because students' learning is embedded in moral, spiritual, familial, and institutional contexts. The data show a positive relationship, but the educational implication is broader. To strengthen students' critical thinking skills, schools should not focus only on test preparation or instructional technique. They also need to cultivate students' confidence, self-understanding, humility, and sense of academic agency.

This does not mean that self-concept and self-efficacy automatically produce critical thinking. The relationship is more modest than that. Students still need good teaching, challenging learning materials, dialogical classrooms, and appropriate assessment. However, the findings suggest that psychological readiness matters. Students who believe they are capable and who see themselves as meaningful learners may be more prepared to engage in analysis, evaluation, and reflective judgment. In Islamic education, such readiness should ideally be nurtured through a balanced combination of academic support, religious values, family involvement, and a school climate that respects both intellectual effort and moral character.

Critical Thinking Skills in the Context of Indonesian Islamic Education

Critical thinking skills in Islamic senior high school education should be understood as more than the ability to answer difficult questions. They involve the capacity to analyze information, examine assumptions, compare arguments, interpret evidence, and make responsible judgments. In this study, critical thinking skills are positioned as the dependent variable because they represent an important cognitive outcome of student learning. Yet, as the findings suggest, these skills do not develop in isolation. They are related to students' self-concept and self-efficacy, two psychological variables that influence how students approach learning tasks and intellectual challenges.

Mardani et al. (2021) show that critical thinking remains a serious issue in Indonesian educational contexts, particularly when classroom practices do not sufficiently encourage students to ask questions, evaluate evidence, and construct arguments. This concern is also relevant to Islamic senior high schools. In many classrooms, learning is still shaped by memorization, teacher-centered explanation, and a strong emphasis on correct answers. It would be unfair to say that memorization has no value. In Islamic education, memorization is part of a long intellectual and spiritual tradition, especially in relation to Qur'anic verses, hadith, and foundational religious knowledge. However, memorization becomes limited

when it is not accompanied by understanding, reflection, and the ability to apply knowledge to new situations.

Anwar et al. (2024) indicate that passive learning environments and limited teacher preparation may hinder the development of students' critical thinking. This is an important point because critical thinking requires practice, not merely instruction. Students need opportunities to explain their reasoning, defend their answers, listen to alternative views, and revise their initial understanding. If learning is dominated by one-way explanation, students may become disciplined listeners, but not necessarily reflective thinkers. They may know what to repeat, but not always know how to examine, connect, or question what they have learned. This is a subtle problem, but in education it has long-term consequences.

Solihati and Hikmat (2018) argue that textbooks and learning materials do not always provide sufficient tasks that stimulate higher-order thinking. Higher Order Thinking Skills refer to cognitive processes such as analysis, evaluation, and creation. These skills are needed when students are asked to solve problems, interpret complex texts, compare perspectives, or produce arguments based on evidence. If students are mostly trained to recall facts, their ability to think critically may remain underdeveloped. It is something quite understandable. Students cannot be expected to develop analytical habits if the learning tasks given to them rarely demand analysis.

In Islamic education, the challenge is not only pedagogical but also conceptual. Some teachers and students may still associate critical thinking with excessive doubt, disobedience, or rejection of religious authority. This assumption needs to be corrected carefully. Critical thinking in Islamic education does not mean questioning religious values destructively. Rather, it means developing disciplined reasoning, ethical reflection, intellectual honesty, and responsible judgment. Islamic intellectual tradition itself contains rich practices of reasoning, interpretation, debate, verification, and moral evaluation. In that sense, critical thinking should not be seen as foreign to Islamic education. It can be understood as part of a broader tradition of seeking knowledge with responsibility.

Karwadi et al. (2025) emphasize that critical-integrative pedagogy can connect critical thinking with Islamic values and student identity. This idea is highly relevant because Islamic education has strong potential to develop critical thinking when Qur'anic reasoning, ethical reflection, dialogue, inquiry, and contextual problem solving are integrated into classroom practice. Qur'anic reasoning, for instance, often invites human beings to observe, reflect, compare, and draw lessons from reality. Ethical reflection encourages students to consider not only whether an answer is correct, but also whether a judgment is fair, responsible, and morally sound. Dialogue helps students learn that knowledge grows through listening as well as speaking.

The findings of this study support the view that critical thinking is connected with students' psychological readiness. The correlation between self-concept and critical thinking skills was 0.681, while the correlation between self-efficacy and critical thinking skills was 0.574. These figures suggest that students who have a more positive perception of themselves and stronger belief in their academic capability tend to show better critical thinking skills. This does not mean that self-concept and self-efficacy automatically produce critical thinking. The relationship is not that simple. However, it does indicate that students' willingness to engage in reasoning, questioning, and problem solving may depend partly on whether they see themselves as capable and whether they believe that effort can lead to success.

Shandy Narmaditya et al. (2018) show that problem-based learning can encourage problem solving, questioning, and real-world application. This approach is especially

promising for Islamic senior high schools because it allows students to connect academic content with moral and social issues. For example, students may be invited to analyze environmental problems through scientific reasoning and Islamic ethical responsibility, or to examine digital behavior through evidence, moral judgment, and social consequences. Such learning is not only cognitively demanding. It also feels meaningful because students can see the connection between knowledge, faith, and life.

Critical thinking in Islamic senior high schools therefore needs to be cultivated through a more balanced educational approach. It should not remove memorization, but it should move beyond memorization. It should not weaken respect for teachers, but it should create space for thoughtful questioning. It should not separate students from Islamic values, but it should help them understand those values more deeply and apply them more responsibly. In our view, this is one of the most important educational tasks of Islamic schooling today. Students need to become not only obedient learners, but also reflective, careful, and morally aware thinkers.

Toward an Integrated Framework Linking Self-Concept, Self-Efficacy, Critical Thinking, and Islamic Pedagogy

The simultaneous correlation coefficient between self-concept and self-efficacy with critical thinking skills was 0.736. This value is higher than the separate correlation between self-concept and critical thinking skills, which was 0.681, and the separate correlation between self-efficacy and critical thinking skills, which was 0.574. The pattern suggests that self-concept and self-efficacy, when considered together, have a stronger relationship with critical thinking skills than when each variable is examined separately. This is an important finding. It indicates that students' critical thinking may be better understood through an integrated psychological framework rather than through a single-variable explanation.

Solikhah et al. (2023) argue that self-efficacy is meaningfully related to students' critical thinking because students who believe in their own ability are more willing to engage in complex cognitive tasks. Fachmi et al. (2019) also show that self-concept is associated with school engagement and academic aspiration. When these two perspectives are brought together, a clearer picture begins to emerge. Positive self-concept helps students see themselves as meaningful learners. Strong self-efficacy helps students believe that they can face difficult tasks. Critical thinking then becomes more possible because students are psychologically more prepared to analyze, argue, evaluate, and solve problems.

This integrated relationship is educationally plausible. Critical thinking is not only a cognitive skill located in the mind. It is also a learning behavior that requires confidence, persistence, openness, and a willingness to face uncertainty. Students who have a poor self-concept may avoid difficult questions because they already see themselves as incapable. Students with weak self-efficacy may stop trying when they encounter complex problems because they doubt whether their effort will matter. In contrast, students with positive self-concept and strong self-efficacy may be more willing to think longer, ask more carefully, and revise their answers. The difference may look small in the classroom, but over time it can shape learning outcomes quite significantly.

The finding of a simultaneous correlation coefficient of 0.736 also suggests that Islamic pedagogy should not treat critical thinking as an isolated instructional target. It should be connected with students' psychological formation and moral development. Critical thinking grows more effectively when students feel recognized, supported, and challenged in a constructive way. This means that teachers should not only provide difficult questions or analytical tasks. They also need to build students' confidence, acknowledge their effort, guide

their reasoning, and create a classroom atmosphere where intellectual struggle is considered normal. Learning becomes healthier when students are not ashamed to think slowly.

Karwadi et al. (2025) propose that Islamic pedagogy can integrate critical reasoning with Islamic values and student identity. This idea is useful for interpreting the findings of the present study. If self-concept, self-efficacy, and critical thinking are mutually reinforcing, then Islamic pedagogy should be designed to nurture all three at the same time. Active learning can help students become more involved in the learning process. Problem-based learning can train students to analyze real situations and search for reasonable solutions. Inquiry-based learning can encourage students to ask questions and examine evidence. Scaffolding can provide gradual assistance so that students are not left alone when facing difficult tasks.

Scaffolding deserves special attention. It refers to temporary instructional support given by teachers so that students can complete tasks that they may not yet be able to complete independently. Suhirman et al. (2021) suggest that scaffolding strategies can support students' critical thinking development, especially when combined with collaborative and metacognitive learning. In an Islamic senior high school classroom, scaffolding may take the form of guiding questions, worked examples, group discussion, teacher feedback, or step-by-step reasoning exercises. This approach can strengthen self-efficacy because students experience difficulty as something that can be managed with guidance and effort.

Reflective dialogue is another important element. Dialogue allows students to articulate their thoughts, listen to others, and reconsider their assumptions. Amirudin et al. (2026) suggest that reflective pedagogy can strengthen moral reasoning and value internalization. In Islamic education, reflective dialogue can connect academic reasoning with ethical and spiritual reflection. Students may be asked not only what they think, but also why they think so, what evidence supports their view, and what moral responsibility follows from their conclusion. This kind of dialogue helps students develop critical thinking without detaching it from *adab*, humility, and responsibility.

Technology-supported learning may also strengthen this integrated framework when it is used thoughtfully. Serevina et al. (2022) and Yasa et al. (2024) show that digital tools and smart learning platforms can support students' critical thinking when they are aligned with meaningful instructional design. Technology should not be used merely to make learning appear modern. It should help students access information, compare sources, solve problems, receive feedback, and reflect on their learning process. In Islamic senior high schools, technology-supported learning can also be connected with Islamic ethical values, for example by encouraging responsible digital literacy, careful verification of information, and respectful online communication.

Teacher role modelling is equally central. Students learn not only from what teachers say, but also from how teachers think, respond, ask, disagree, and admit limitations. A teacher who models intellectual humility can show students that not knowing is not a disgrace, as long as it leads to further learning. Rusdi et al. (2019) indicate that humility or *tawāḍu'* is related to academic self-efficacy, and this insight has practical significance for Islamic pedagogy. Teachers who combine high academic expectations with humility, patience, and fairness may help students develop confidence without arrogance and critical thinking without disrespect.

Family-school collaboration should also be included in the framework. Hasanah et al. (2019) show that democratic parenting is associated with better self-esteem and lower academic stress, while Wildan and Qibtiyah (2020) emphasize the role of family and school

environments in students' development. These findings suggest that schools cannot work alone. Students' self-concept and self-efficacy are shaped by messages they receive at home as well as at school. When parents support learning, encourage responsibility, and avoid excessive pressure, students may become more emotionally ready to engage in challenging academic tasks. When schools communicate with families about students' learning development, the support system becomes more coherent.

The integrated framework proposed here is therefore based on a simple but important argument. Critical thinking in Islamic education should not be separated from moral formation, spiritual awareness, and responsible agency. Students need to think critically, but they also need to think ethically. They need confidence, but not arrogance. They need humility, but not passivity. They need academic challenge, but also guidance and support. The findings of this study suggest that self-concept and self-efficacy are meaningfully related to critical thinking skills, and this relationship becomes stronger when both variables are considered simultaneously.

For Islamic senior high school education, the implication is clear enough. Strengthening critical thinking requires more than inserting HOTS questions into tests. It requires a learning ecology that supports students psychologically, cognitively, morally, and spiritually. Active learning, problem-based learning, inquiry, scaffolding, reflective dialogue, technology-supported instruction, Islamic ethical values, teacher role modelling, and family-school collaboration should be seen as interconnected components. None of them is sufficient alone. Together, however, they can help students become learners who are confident, reflective, intellectually careful, and morally responsible.

Conclusion

This study concludes that self-concept, self-efficacy, and critical thinking skills are interconnected dimensions of student development in Indonesian Islamic senior high schools. Positive self-concept helps students understand themselves as capable learners, socially situated individuals, and young Muslims who are developing their religious and moral identity. In this sense, self-concept is not merely a psychological perception. It becomes part of how students locate themselves within the school, within their peer community, and within the broader moral expectations of Islamic education.

Self-efficacy also plays an important role in strengthening students' motivation, persistence, and willingness to engage in challenging learning tasks. Students who believe that they are able to complete academic tasks are more likely to face difficulty with patience and effort rather than avoidance. This is especially important because critical thinking requires students to analyze, evaluate, interpret, and solve problems, all of which demand confidence as well as discipline. It is reasonable, therefore, to say that critical thinking does not grow only from cognitive training. It also grows from students' belief that they can think, ask, revise, and improve.

Finally, the development of critical thinking skills in Islamic senior high schools should be placed within a broader framework of holistic education. Active learning, reflective pedagogy, Islamic ethical values, family support, and a positive school environment can create the conditions in which students become more confident, thoughtful, and responsible learners. Islamic education should not treat critical thinking as a purely technical cognitive skill detached from moral and spiritual formation. Rather, critical thinking needs to be understood as part of the formation of the whole person, involving intellect, morality, spirituality, and social responsibility.

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Conflict of Interests

There are no disclosed conflicts of interest for the authors. I attest that the submission is unique and is not already being considered by another publisher.

Ethical Considerations

The sources of this research—articles, books, research papers, and scientific forum proceedings—are all free of copyright violations.

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