

Predicting Problem-Solving Ability through Self-Confidence and Thinking Styles among Indonesian Islamic Senior High School Students

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Abstract

This study examines the extent to which self-confidence and thinking styles predict problem-solving ability among students in Indonesian Islamic senior high schools. Using a quantitative predictive-correlational design, the study involved 73 students from three state Islamic senior high schools in Ciamis, West Java, Indonesia, namely Madrasah Aliyah Negeri 2 Ciamis, Madrasah Aliyah Negeri 3 Ciamis, and Madrasah Aliyah Negeri 6 Ciamis. Data were collected using questionnaires to measure self-confidence and thinking styles, while students' problem-solving ability was assessed through an observation checklist. The data were analyzed using descriptive statistics, correlation analysis, and multiple regression analysis. The findings show that self-confidence has a positive relationship with problem-solving ability, with a correlation coefficient of $r = 0.573$. Thinking styles also show a positive relationship with problem-solving ability, with $r = 0.615$. Simultaneously, self-confidence and thinking styles have a stronger relationship with problem-solving ability, with $r = 0.749$. These findings suggest that problem-solving ability is shaped by both affective and cognitive dimensions. The study implies that Islamic senior high schools need to strengthen students' confidence and develop flexible thinking through reflective, collaborative, problem-based, and value-oriented learning.

Keywords

Self-confidence, thinking styles, problem-solving ability, Islamic senior high school

Abstrak

Penelitian ini bertujuan untuk mengkaji sejauh mana self-confidence dan thinking styles dapat memprediksi problem-solving ability siswa pada madrasah aliyah di Indonesia. Penelitian ini menggunakan desain kuantitatif dengan pendekatan prediktif-korelasional. Responden penelitian terdiri atas 73 siswa dari tiga madrasah aliyah negeri di Kabupaten Ciamis, Jawa Barat, Indonesia, yaitu Madrasah Aliyah Negeri 2 Ciamis, Madrasah Aliyah Negeri 3 Ciamis, dan Madrasah Aliyah Negeri 6 Ciamis. Data dikumpulkan melalui angket untuk mengukur self-confidence dan thinking styles, sedangkan problem-solving ability diukur melalui lembar observasi. Data dianalisis menggunakan statistik deskriptif, analisis korelasi, dan regresi berganda. Hasil penelitian menunjukkan bahwa self-confidence memiliki hubungan positif dengan problem-solving ability, dengan koefisien korelasi $r = 0,573$.

Thinking styles juga memiliki hubungan positif dengan problem-solving ability, dengan nilai $r = 0,615$. Secara simultan, self-confidence dan thinking styles menunjukkan hubungan yang lebih kuat dengan problem-solving ability, yaitu $r = 0,749$. Temuan ini menunjukkan bahwa problem-solving ability siswa dipengaruhi oleh dimensi afektif dan kognitif secara bersamaan. Penelitian ini mengimplikasikan perlunya madrasah aliyah mengembangkan lingkungan belajar yang memperkuat kepercayaan diri, fleksibilitas berpikir, pembelajaran reflektif, kolaboratif, berbasis masalah, dan berorientasi nilai.

Keywords

Kepercayaan diri, gaya berpikir, kemampuan memecahkan masalah, madrasah aliyah

Introduction

Problem-solving ability has become one of the most important learning outcomes in contemporary education. Students are no longer expected merely to remember subject content or reproduce information in examination settings. They are also required to understand situations, identify relevant information, make judgments, select strategies, and evaluate the consequences of their decisions. Yendi et al. (2025) place problem-solving ability among the central competencies that shape students' academic development and future aspirations, especially when learning is understood as preparation for real academic and social challenges. In a practical sense, this is not difficult to understand. A student who can solve problems is usually better prepared to face uncertainty, not only in the classroom, but also in everyday life.

In the context of Islamic senior high schools in Indonesia, this issue becomes even more meaningful. Madrasah Aliyah occupies a distinctive position because it combines general academic learning with Islamic values, moral education, and character formation. Abdullah (2019) emphasizes that Islamic educational institutions are shaped not only by curricular demands, but also by cultural, religious, and institutional values that influence how students learn and develop. For this reason, problem-solving ability in Madrasah Aliyah should not be treated as a purely cognitive skill. It is also connected with responsibility, discipline, ethical judgment, and the formation of students as thoughtful human beings. This point may look simple, but it is often overlooked when problem-solving is discussed only in technical or psychological terms.

Self-confidence is one factor that cannot be ignored in explaining students' problem-solving ability. In educational psychology, self-confidence refers to students' belief that they are able to face academic tasks, manage difficulties, and complete learning activities successfully. Akbar et al. (2022) and Farnila et al. (2021) show that students with stronger self-confidence tend to be more active in planning and executing problem-solving steps. They are more willing to try, more persistent when facing obstacles, and less easily discouraged when their first strategy does not work. This does not mean that self-confidence automatically makes students intellectually superior. Rather, it provides the psychological readiness needed to engage with difficult tasks. Without such readiness, even capable students may hesitate, remain passive, or avoid complex problems.

Rusdi et al. (2019) also suggest that self-confidence in Islamic educational contexts may be related to broader moral and spiritual dispositions, including humility, respect, and openness to learning. This is an important nuance. In some educational settings, confidence is sometimes misunderstood as assertiveness without restraint. In Islamic education, however, confidence ideally grows together with humility and responsibility. Students are

encouraged to believe in their ability, but also to recognize the value of guidance, effort, and ethical conduct. In our view, this balance is relevant because problem-solving requires not only courage to act, but also willingness to reflect, revise, and learn from others.

Besides self-confidence, thinking styles also play an important role in shaping how students solve problems. Thinking styles refer to students' preferred ways of processing information, organizing ideas, interpreting situations, and responding to learning tasks. Kholid et al. (2020) explain that students with field-independent cognitive styles often demonstrate stronger analytical and systematic thinking, while field-dependent students may rely more on external cues, examples, or structured guidance. Wibowo et al. (2019) further show that different learning and thinking preferences, including visual, auditory, and kinesthetic tendencies, can influence students' creative thinking processes. These findings remind us that students do not approach problems in the same way. Some students move quickly toward analysis. Others need context, interaction, or examples before they can construct a solution.

The relationship between thinking styles and problem-solving ability is therefore not merely a matter of intelligence. It is also a matter of cognitive orientation. Dwi Susandi et al. (2019) indicate that students with more independent and analytical thinking tendencies often perform better in problem-solving accuracy, while Rahman et al. (2022) show that students who depend heavily on external guidance may need more structured support to clarify problem-solving steps. This does not mean that one thinking style is always better than another in every learning situation. It means that teachers need to understand how students think, not only what they know. A student may fail to solve a problem not because the student is incapable, but because the learning process does not fit the way the student processes information.

In Islamic senior high schools, the study of self-confidence and thinking styles is especially relevant because these institutions are expected to develop students holistically. They are expected to cultivate intellectual competence, religious awareness, moral character, and social responsibility at the same time. Hady et al. (2025) and Rusdi et al. (2019) suggest that school environment, Islamic values, and institutional culture can support students' self-efficacy and learning development. This means that the development of problem-solving ability cannot be separated from the wider ecology of madrasah education. Classroom methods, teacher expectations, peer interaction, religious values, and school leadership may all shape how students build confidence and how they learn to think.

However, existing studies still tend to examine self-confidence, thinking styles, and problem-solving ability separately. Yendi et al. (2025) provide strong evidence regarding academic self-efficacy and problem-solving, while Kholid et al. (2020) and Dwi Susandi et al. (2019) focus more on cognitive or thinking styles in relation to higher-order thinking. Yet fewer studies examine how self-confidence and thinking styles simultaneously predict problem-solving ability, particularly among students in Indonesian Islamic senior high schools. This gap is important because problem-solving is rarely shaped by a single factor. It usually emerges from the interaction between affective readiness and cognitive processing. In simpler terms, students need both the courage to face problems and a way of thinking that helps them work through those problems.

Based on this background, the present study examines self-confidence and thinking styles as predictors of problem-solving ability among students in Indonesian Islamic senior high schools. The study was conducted in three Madrasah Aliyah Negeri in Ciamis, West Java, Indonesia, involving students from Madrasah Aliyah Negeri 2 Ciamis, Madrasah Aliyah Negeri 3 Ciamis, and Madrasah Aliyah Negeri 6 Ciamis. By focusing on this setting, the

study seeks to contribute to a more contextual understanding of student development in Islamic education. Therefore, this study aims to examine the extent to which self-confidence and thinking styles predict problem-solving ability among students in Indonesian Islamic senior high schools.

Literature Review

Self-Confidence and Problem-Solving Ability

Self-confidence is an important psychological factor in students' learning behavior because it shapes how they perceive their own capacity to face academic tasks. In the educational context, self-confidence is closely related to students' belief that they can understand learning materials, manage difficulties, make decisions, and continue working even when the task is not immediately easy. Yendi et al. (2025) describe this confidence, often discussed as academic self-efficacy, as a significant predictor of students' academic development and problem-solving capacity. It gives students a sense that the problem before them is not something to avoid, but something that can be approached, examined, and gradually solved.

Students with higher self-confidence tend to participate more actively in learning. They are usually more willing to ask questions, express opinions, test ideas, and try different strategies when their first attempt does not succeed. Akbar et al. (2022) show that self-confidence is especially related to the planning and execution stages of problem-solving, where students need to decide what steps should be taken and how those steps should be carried out. This finding is quite reasonable. Problem-solving does not only require knowledge. It also requires a certain psychological courage to begin, to make mistakes, and to revise one's strategy when necessary.

Farnila et al. (2021) also indicate that students with stronger self-confidence are more likely to engage in reflective thinking during problem-solving activities. Reflective thinking here refers to the ability to reconsider information, evaluate possible solutions, and examine whether the chosen strategy is appropriate. This means that self-confidence does not work merely as emotional encouragement. It also supports the cognitive process by allowing students to trust their reasoning while remaining open to correction. In many classroom situations, a student may already have sufficient knowledge, but without confidence, that knowledge may not appear in action. This small but important point should not be ignored.

The relationship between self-confidence and problem-solving ability can also be seen in the way students respond to difficulty. Students with low self-confidence often become hesitant when they encounter unfamiliar questions. They may wait for direct instruction, imitate examples without deeper understanding, or stop working when the problem seems too complex. By contrast, Akbar et al. (2022) and Fahmi et al. (2021) suggest that students with higher self-confidence are more persistent in devising plans and executing problem-solving steps. Persistence is not a minor issue here. It is one of the conditions that allows students to move from confusion to understanding.

In the context of Islamic education, self-confidence may be understood more broadly than individual assertiveness. Rusdi et al. (2019) connect students' self-efficacy with humility, respect, and openness to learning within Islamic educational values. This connection is important because Islamic education does not encourage confidence as arrogance or self-centeredness. Rather, confidence is ideally accompanied by moral responsibility, discipline, and awareness that ability develops through effort, guidance, and ethical conduct. In this sense, a confident student is not simply a student who believes in himself or herself. A

confident student is also one who is willing to learn, accept correction, and continue striving in a responsible manner.

This moral dimension gives self-confidence a distinctive meaning in Islamic senior high schools. Students are expected to develop intellectual courage, but at the same time they are guided to cultivate humility and responsibility. Rusdi et al. (2019) suggest that humility may strengthen self-efficacy because it fosters a balanced view of the self. This is an interesting point. A student who is humble is not necessarily weak or passive. On the contrary, humility can make students more open to feedback, more willing to collaborate, and more prepared to improve their problem-solving strategies.

Several studies also show that instructional interventions can strengthen self-confidence and, in turn, improve students' problem-solving ability. Siregar et al. (2017) found that motivational strategies can help students develop greater confidence in handling academic problems. Anjelina et al. (2020) further indicate that problem-based learning can enhance students' motivation and problem-solving ability by giving them opportunities to engage directly with meaningful problems. These findings imply that self-confidence is not a fixed trait. It can be developed through learning environments that provide support, challenge, feedback, and space for students to think independently.

Therefore, self-confidence should be regarded as a key affective foundation of problem-solving ability. It supports students in understanding problems, planning strategies, executing solutions, and evaluating outcomes. Yet it does not stand alone. Self-confidence becomes more educationally meaningful when it is connected with reflective thinking, metacognitive awareness, and moral formation. In Islamic senior high schools, this connection is particularly relevant because learning is expected to form students who are not only cognitively competent, but also disciplined, responsible, and ethically grounded.

Thinking Styles and Students' Cognitive Processing

Thinking styles refer to students' preferred ways of processing information, organizing ideas, making judgments, and responding to problems. They do not simply describe how intelligent students are. Rather, they help explain how students use their intellectual resources when they encounter academic tasks. Kholid et al. (2020) discuss thinking styles through the distinction between field-independent and field-dependent cognitive styles, while Wibowo et al. (2019) relate students' visual, auditory, and kinesthetic tendencies to creative thinking processes. These perspectives suggest that students may approach the same problem in different ways, even when they have similar levels of academic ability.

Field-independent students are generally more analytical, self-directed, and able to separate relevant information from distracting details. Kholid et al. (2020) show that field-independent students tend to demonstrate stronger critical thinking indicators, including interpretation, analysis, evaluation, inference, explanation, and self-regulation. In problem-solving activities, these qualities are useful because students must understand the problem, identify what information matters, select a strategy, and evaluate whether the solution is reasonable. Such students often appear more systematic. They may not always be faster, but they usually show clearer steps in working through a problem.

Field-dependent students, on the other hand, often rely more on context, examples, social cues, or external guidance. Rahman et al. (2022) indicate that field-dependent students may depend more heavily on taught procedures and may show less clarity in explaining problem-solving steps. This should not be read too quickly as a weakness. It may be more accurate to say that field-dependent students need a learning structure that helps them organize information and move gradually toward independent reasoning. In actual

classrooms, many students do not fail because they cannot think. They fail because the learning environment does not provide the kind of scaffolding they need.

Dwi Susandi et al. (2019) suggest that field-independent cognitive styles are associated with higher problem-solving accuracy and stronger strategic competence. This finding is consistent with the idea that analytical and independent processing helps students deal with complex or unfamiliar tasks. However, it is also important to avoid reducing problem-solving ability to a single cognitive style. Students with different thinking styles may still develop strong problem-solving skills when instruction is responsive to their needs. A reflective student, a creative student, or even a student who needs structured guidance can still become a good problem solver when learning activities are well designed.

Thinking styles also influence the way students select and evaluate strategies. Students with analytical tendencies may break a problem into smaller parts. Students with creative tendencies may look for alternative possibilities. Students with visual preferences may need diagrams or representations, while students with auditory tendencies may benefit from explanation and discussion. Wibowo et al. (2019) show that visual, auditory, and kinesthetic tendencies are related to creative thinking, which is one of the supporting dimensions of problem-solving. This suggests that problem-solving ability is not produced by one rigid pattern of thinking. It may emerge through several cognitive pathways.

The relationship between thinking styles and problem-solving ability becomes more complex when it interacts with self-confidence. Sutarna et al. (2021) indicate that students with field-independent tendencies often show higher self-confidence and better problem-solving accuracy. This interaction is important because thinking style gives students a way to process problems, while self-confidence gives them the readiness to use that way of thinking. A student may have an analytical style but hesitate to act because of low confidence. Conversely, a confident student may still need cognitive strategies to solve problems effectively. These two dimensions, therefore, should be viewed as complementary rather than separate.

Instructional strategies also matter in developing students' thinking styles and problem-solving ability. Yerimadesi et al. (2023) show that guided discovery learning can support students in developing higher-order thinking skills, while Narmaditya et al. (2018) indicate that problem-based learning encourages students to engage more actively with complex problems. These approaches are especially useful because they do not merely provide answers. They invite students to observe, question, analyze, test, and evaluate. In a modest but real sense, they train students to think.

In Indonesian Islamic senior high schools, thinking styles should be interpreted within a broader educational culture. Oktavianto et al. (2024) suggest that culturally responsive learning, including collaborative work and values such as *gotong royong* and *jama'ah*, may support students' higher-order thinking development. This is relevant because Islamic education does not separate cognition from community, ethics, and responsibility. Students are encouraged not only to think correctly, but also to think responsibly and constructively. Thus, the development of thinking styles in madrasah education should involve both cognitive flexibility and value-based learning practices.

Overall, thinking styles provide an important lens for understanding students' problem-solving ability. Analytical, reflective, creative, field-independent, field-dependent, visual, auditory, and kinesthetic tendencies may shape how students understand problems and construct solutions. Yet these styles should not be treated as fixed labels. They are better understood as learning tendencies that can be strengthened, balanced, and supported through appropriate pedagogy. In this study, thinking styles are therefore positioned as one

of the key predictors of problem-solving ability among students in Indonesian Islamic senior high schools.

Self-Confidence, Thinking Styles, and Problem-Solving in Islamic Senior High Schools

The relationship among self-confidence, thinking styles, and problem-solving ability needs to be understood as an interaction between psychological readiness and cognitive orientation. Self-confidence gives students the inner assurance that they are capable of facing difficult tasks, while thinking styles influence the way they process information, organize ideas, and select strategies. Yendi et al. (2025) suggest that academic self-efficacy is closely related to students' capacity to pursue goals and solve problems, and Kholid et al. (2020) show that cognitive styles shape the quality of students' critical and analytical thinking. When these two dimensions are considered together, problem-solving ability appears not as a single skill, but as a more complex learning outcome.

In practical classroom situations, students may understand a problem but still hesitate to solve it because they lack confidence. Other students may have confidence, but their thinking process may not yet be systematic enough to produce an effective solution. This is why self-confidence and thinking styles should not be treated separately in explaining problem-solving ability. Akbar et al. (2022) show that self-confidence supports students in planning and executing problem-solving steps, while Dwi Susandi et al. (2019) indicate that field-independent thinking tendencies are associated with stronger problem-solving accuracy. The two findings point to a rather simple but important idea. Students need both the courage to engage with problems and the cognitive style that helps them work through those problems carefully.

This relationship becomes more meaningful in the context of Islamic senior high schools. Madrasah Aliyah is not only designed to transmit academic knowledge. It also carries the responsibility of forming students who are morally aware, disciplined, reflective, and socially responsible. Abdullah (2019) argues that Islamic educational institutions are shaped by both curricular and value-based expectations, and this makes learning in madrasah different from a purely technical academic process. In this setting, problem-solving ability should not be reduced to the ability to answer questions correctly. It also involves the ability to think responsibly, make considered judgments, and act with awareness of ethical consequences.

Rusdi et al. (2019) provide an important perspective by linking self-efficacy with humility and Islamic moral values. This connection helps clarify that self-confidence in Islamic education does not mean excessive self-assertion. It is closer to a balanced belief in one's ability, accompanied by openness to guidance, respect for others, and willingness to keep learning. Such a view is relevant to problem-solving because students who are confident but not reflective may become careless, while students who are humble but lack confidence may become passive. Islamic education ideally seeks a middle position, where students are encouraged to trust their abilities while remaining ethically grounded.

Thinking styles also need to be interpreted within this wider educational atmosphere. Students in Islamic senior high schools may show different tendencies in approaching problems. Some may be analytical and independent. Others may need examples, discussion, or structured guidance before they can solve a task confidently. Rahman et al. (2022) suggest that students with field-dependent tendencies often require clearer instructional support, whereas Kholid et al. (2020) show that field-independent students tend to display stronger indicators of critical thinking. These differences should not be used to label students permanently. Rather, they should help teachers design learning strategies that are more responsive to students' actual ways of thinking.

From an Islamic educational perspective, this responsiveness is not merely pedagogical. It is also ethical. Teachers are expected to recognize students' different capacities, guide them with patience, and create learning environments that allow each student to grow. Oktavianto et al. (2024) suggest that culturally responsive learning practices, including collaborative work and values such as *gotong royong* and *jama'ah*, may support higher-order thinking development in Indonesian educational contexts. This is relevant because problem-solving in madrasah can be developed not only through individual reasoning, but also through dialogue, cooperation, and shared responsibility.

The integration of self-confidence and thinking styles therefore offers a useful framework for understanding students' problem-solving ability. Self-confidence supports motivation, persistence, and willingness to take intellectual risks. Thinking styles shape the direction and quality of students' cognitive processing. When both dimensions are strong and supported by an appropriate learning environment, students are more likely to understand problems, plan strategies, execute solutions, and evaluate their answers. It is reasonable, then, to assume that problem-solving ability in Islamic senior high schools emerges from the interaction of affective, cognitive, moral, and pedagogical factors.

Based on this theoretical discussion, the present study proposes the following hypotheses.

H1 Self-confidence significantly predicts students' problem-solving ability.

H2 Thinking styles significantly predict students' problem-solving ability.

H3 Self-confidence and thinking styles simultaneously predict students' problem-solving ability.

Method

Research Design

This study employed a quantitative research design with a predictive-correlational approach. This design was considered appropriate because the study sought to examine whether self-confidence and thinking styles could predict students' problem-solving ability. Self-confidence and thinking styles were treated as the independent variables, while problem-solving ability was treated as the dependent variable. The design did not aim to manipulate the learning situation, but to measure the statistical relationship among variables as they naturally appeared in the school context.

Participants and Research Setting

The participants were 73 students from three Islamic senior high schools in Ciamis, West Java, Indonesia. They consisted of 25 students from Madrasah Aliyah Negeri 2 Ciamis, 25 students from Madrasah Aliyah Negeri 3 Ciamis, and 23 students from Madrasah Aliyah Negeri 6 Ciamis. These schools were selected because they represent state Islamic senior high schools that combine national academic curriculum with Islamic values and character formation. This setting was relevant to the purpose of the study because problem-solving ability in madrasah education is shaped not only by cognitive factors, but also by students' confidence, learning habits, and value-based educational culture.

Research Instruments

Data were collected using questionnaires and an observation checklist. The questionnaires were used to measure self-confidence and thinking styles. The self-confidence questionnaire covered indicators such as students' belief in completing academic tasks,

courage in facing learning difficulties, persistence, and confidence in making decisions. The thinking styles questionnaire measured students' tendencies in processing information, organizing ideas, analyzing problems, and responding to learning tasks.

Problem-solving ability was assessed using an observation checklist. The checklist focused on students' ability to understand problems, formulate plans, apply strategies, and evaluate solutions. The questionnaire items were scored using a Likert-type scale, while the observation checklist was scored based on students' demonstrated performance. Instrument validity was examined through content review and item analysis, while reliability was tested to ensure internal consistency before the data were analyzed further.

Data Collection Procedures

The data collection process began with permission from the participating schools. After permission was obtained, the questionnaires were administered to the students in each school. The observation of problem-solving ability was then conducted using the prepared checklist. The collected data were checked for completeness before being entered into the statistical analysis process.

Ethical considerations were also observed. Student participation was voluntary, and the data were used only for academic research purposes. The identities of students and schools were treated with confidentiality, although the institutional setting was described to clarify the research context.

Data Analysis

The data were analyzed using descriptive statistics, correlation analysis, and multiple regression analysis. Descriptive statistics were used to describe the general tendencies of self-confidence, thinking styles, and problem-solving ability. Correlation analysis was used to examine the relationship among the variables. Multiple regression analysis was used to determine whether self-confidence and thinking styles predicted problem-solving ability, both partially and simultaneously.

Before conducting regression analysis, several assumption tests were considered, including normality, linearity, multicollinearity, and heteroscedasticity tests. These tests were used to ensure that the data met the basic requirements for regression analysis and that the interpretation of the statistical results was methodologically acceptable.

Results and Discussion

Descriptive Findings of Self-Confidence, Thinking Styles, and Problem-Solving Ability

The descriptive analysis was conducted to provide an initial picture of students' self-confidence, thinking styles, and problem-solving ability before examining the predictive relationship among the variables. In the final version of this article, this subsection should be accompanied by a table presenting the mean scores, standard deviations, minimum and maximum scores, and category distribution for each variable. These descriptive data are important because they help readers understand the general condition of students before moving to correlation and regression analysis.

Conceptually, the descriptive findings need to be interpreted as a reflection of students' psychological and cognitive readiness in learning. Self-confidence represents the degree to which students believe in their ability to face academic tasks, make decisions, and continue working when problems become difficult. Thinking styles describe how students tend to process information, organize ideas, and approach learning tasks. Problem-solving ability,

meanwhile, reflects students' capacity to understand problems, plan strategies, implement solutions, and evaluate the results of their work.

In the context of Islamic senior high schools, these three variables should not be read only as separate psychological or cognitive constructs. Abdullah (2019) suggests that madrasah education is shaped by both academic and value-based expectations, and this makes students' learning development closely related to character formation, discipline, and responsibility. Therefore, descriptive findings on self-confidence, thinking styles, and problem-solving ability can also be understood as part of the broader picture of student formation in Islamic education.

If the descriptive data show that students' self-confidence is at a moderate or high level, it may indicate that students have sufficient psychological readiness to engage with academic challenges. If thinking styles appear varied, it may suggest that students do not approach problems in a single uniform way. Some may be more analytical and independent, while others may need examples, discussion, or structured guidance. This variation is normal. It also reminds us that teaching problem-solving in madrasah should not rely on only one learning strategy.

The descriptive results may also be compared across the three schools if the data allow such comparison. Differences among students from Madrasah Aliyah Negeri 2 Ciamis, Madrasah Aliyah Negeri 3 Ciamis, and Madrasah Aliyah Negeri 6 Ciamis may reflect variations in classroom climate, learning habits, teacher guidance, or institutional culture. However, such differences should be interpreted carefully. A descriptive difference does not automatically mean that one school is better than another. It may simply show that students' psychological and cognitive development is shaped by different educational experiences.

The Predictive Effect of Self-Confidence on Problem-Solving Ability

The analysis showed a positive relationship between self-confidence and problem-solving ability, with a correlation coefficient of $r = 0.573$. This value indicates a moderate to strong relationship. In practical terms, students with higher self-confidence tended to demonstrate better problem-solving ability. The coefficient of determination derived from this correlation was $r^2 = 0.328$, which means that self-confidence accounted for approximately 32.8 percent of the variance in students' problem-solving ability. This is not a small contribution, although it also indicates that other factors outside self-confidence remain influential.

Akbar et al. (2022) explain that self-confidence is closely related to the planning and execution stages of problem-solving. This finding is consistent with the result of the present study. Students who believe in their ability are usually more willing to begin working on a problem, formulate a plan, test a solution, and continue the process when the first attempt does not immediately succeed. This is a simple point, but it matters. Many students do not fail because they have no knowledge at all. Sometimes they fail because they hesitate to use what they already know.

Farnila et al. (2021) also show that students with stronger self-confidence tend to engage more actively in reflective thinking. In relation to the present finding, self-confidence may help students evaluate their own reasoning, reconsider their strategies, and correct their mistakes during problem-solving activities. It is therefore reasonable to argue that self-confidence does not merely function as emotional encouragement. It also supports the cognitive process because students who trust their ability are more likely to stay involved in the task long enough to think carefully.

In Islamic senior high schools, this finding has a broader educational meaning. Rusdi et al. (2019) connect self-efficacy with humility, respect, and openness to learning in Islamic educational contexts. This suggests that self-confidence in madrasah education should not be understood as excessive self-assertion. Rather, it should be seen as a balanced belief in one's ability, accompanied by discipline, responsibility, and willingness to receive guidance. Such a form of confidence is important for developing students who are not only active learners, but also reflective and ethically aware individuals.

The correlation found in this study should still be interpreted carefully. Since the design is predictive-correlational, the result indicates association and predictive contribution, not direct causal proof. However, the strength of the relationship suggests that strengthening students' self-confidence may be a meaningful pedagogical concern. Teachers may support this through constructive feedback, problem-based learning, guided practice, and learning situations that allow students to experience gradual success. In this sense, self-confidence becomes part of the foundation for building active, responsible, and resilient problem solvers.

Thinking Styles and the Combined Prediction of Problem-Solving Ability

The analysis also showed a positive relationship between thinking styles and problem-solving ability, with a correlation coefficient of $r = 0.615$. This value indicates a strong enough relationship to suggest that students' cognitive preferences are meaningfully related to their ability to solve problems. The coefficient of determination was $r^2 = 0.378$, meaning that thinking styles accounted for approximately 37.8 percent of the variance in students' problem-solving ability. Compared with self-confidence, thinking styles showed a slightly stronger relationship with problem-solving ability in this study.

Kholid et al. (2020) argue that students with field-independent cognitive styles tend to show stronger critical thinking indicators, including interpretation, analysis, evaluation, inference, explanation, and self-regulation. The present finding is in line with that argument because problem-solving requires students to identify relevant information, organize ideas, select appropriate strategies, and evaluate possible solutions. Students who are more analytical, reflective, and independent in their thinking are usually better positioned to complete these steps.

Dwi Susandi et al. (2019) also indicate that field-independent students tend to demonstrate higher problem-solving accuracy. However, this does not mean that students with other thinking styles are unable to solve problems well. Rahman et al. (2022) suggest that field-dependent students may need more structured support, examples, and external guidance. This point is important for educational practice. Thinking styles should not be used to label students rigidly. They should be used to understand how students learn, where they need support, and what kind of instruction may help them develop stronger problem-solving ability.

The simultaneous analysis showed that self-confidence and thinking styles together had a strong relationship with problem-solving ability, with a multiple correlation coefficient of $R = 0.749$. The coefficient of determination was $R^2 = 0.561$, meaning that both variables simultaneously explained approximately 56.1 percent of the variance in students' problem-solving ability. This result suggests that the combined contribution of psychological readiness and cognitive orientation is substantial. In other words, students' problem-solving ability is better explained when self-confidence and thinking styles are considered together rather than separately.

This finding is central to the argument of the present article. Self-confidence helps students become willing to face problems, persist through difficulty, and trust their reasoning. Thinking styles shape how students understand the problem, process information, construct strategies, and evaluate outcomes. When these two dimensions work together, students are more likely to approach problem-solving tasks with both courage and cognitive direction. It is difficult to imagine effective problem-solving without either of them. Confidence without clear thinking may lead to careless answers, while thinking ability without confidence may remain passive and unused.

In the context of Islamic senior high schools, the simultaneous contribution of self-confidence and thinking styles supports the idea that problem-solving ability is part of holistic student development. Hady et al. (2025) and Rusdi et al. (2019) suggest that Islamic values, school environment, and educational culture can support students' learning confidence and cognitive growth. Therefore, developing problem-solving ability in madrasah should involve more than training students to answer academic questions. It should also involve the formation of disciplined, reflective, confident, and responsible learners.

The result also has pedagogical implications. Teachers in Islamic senior high schools may need to design learning activities that strengthen both affective and cognitive dimensions. Problem-based learning, guided inquiry, collaborative discussion, reflective questioning, and metacognitive exercises may help students develop confidence while also improving their thinking strategies. Oktavianto et al. (2024) suggest that culturally responsive learning practices, including cooperation and shared responsibility, are relevant in Indonesian educational contexts. Such practices may be especially suitable for madrasah because they connect intellectual development with moral and social formation.

Overall, the findings indicate that self-confidence and thinking styles are meaningful predictors of students' problem-solving ability. The stronger simultaneous relationship shows that problem-solving is not shaped by a single factor. It grows from the interaction between students' belief in their own capacity and the way they process academic challenges. In a madrasah context, this interaction becomes even more important because education is expected to produce students who are intellectually capable, morally responsible, and prepared to face real problems with confidence and wisdom.

Conclusion

This study examined the extent to which self-confidence and thinking styles predict problem-solving ability among students in Indonesian Islamic senior high schools. The findings indicate that both variables are positively related to students' problem-solving ability. Self-confidence contributes to students' willingness to face academic challenges, make decisions, persist through difficulty, and trust their own reasoning. Thinking styles, meanwhile, shape the way students process information, organize ideas, select strategies, and evaluate possible solutions. When considered together, self-confidence and thinking styles provide a stronger explanation of students' problem-solving ability than when each variable is viewed separately.

These findings suggest that problem-solving ability should not be understood only as a technical cognitive skill. In Islamic senior high schools, it is also connected with students' psychological readiness, learning habits, discipline, and moral formation. This is important because madrasah education is expected to develop students who are not only academically capable, but also thoughtful, responsible, and ethically aware. It is therefore reasonable to

argue that improving students' problem-solving ability requires attention to both affective and cognitive dimensions of learning.

The study implies that Islamic senior high schools need to design learning environments that strengthen students' confidence and encourage flexible, reflective, and analytical thinking. Teachers may develop these competencies through problem-based learning, guided inquiry, reflective learning, collaborative activities, and value-based pedagogy. Such approaches can help students become more active in facing problems, more careful in constructing solutions, and more responsible in using their intellectual abilities within the broader aims of Islamic education.

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Conflict of Interests

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

Ethical Considerations

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