

The Effect of Self-Efficacy, Creativity, and Learning Motivation on The Religiosity of State High School Students

Helfinasyam Batubara¹, Rusydi Ananda², Retno Sayekti³

¹ Universitas Islam Negeri Sumatera Utara Medan, Indonesia; helfinasyam1909@gmail.com

² Universitas Islam Negeri Sumatera Utara Medan, Indonesia; rusydiananda@uinsu.ac.id

³ Universitas Islam Negeri Sumatera Utara Medan, Indonesia; retnosayekti@uinsu.ac.id

Keywords:

self-efficacy,
creativity, learning
motivation,
religiosity, high
school students.

Abstract

Religiosity plays a crucial role in shaping students' moral character; however, in the contemporary educational context, it is increasingly influenced by internal psychological and academic factors rather than solely by formal religious instruction. This study aims to examine the influence of self-efficacy, creativity, and learning motivation on the religiosity of public senior high school students in Central Tapanuli Regency. The research employed a quantitative approach with a positivist paradigm and a correlational design. A total of 313 students were selected from a population of 1,424 using proportional random sampling. Data were collected through a validated and reliable Likert-scale questionnaire and analyzed using descriptive statistics and multiple linear regression. The findings reveal that self-efficacy, creativity, and learning motivation simultaneously have a significant effect on students' religiosity, accounting for 51.1% of the variance. Partially, all variables show positive and significant effects, with creativity emerging as the strongest predictor, followed by learning motivation and self-efficacy. These results indicate that students' religiosity is shaped through the interaction of psychological beliefs, creative thinking, and motivational engagement. The study implies that enhancing students' religiosity requires a holistic educational approach that integrates psychological development with religious education. Schools are therefore encouraged to design learning environments that foster self-efficacy, support creative expression, and strengthen intrinsic motivation to promote sustainable religious character development.

Kata kunci:

efikasi diri,
kreativitas, motivasi
belajar, religiusitas,
siswa SMA

Article history:

Received: 12-02-2026

Revised 13-05-2026

Accepted 20-07-2026

Abstrak

Religiusitas memiliki peran penting dalam membentuk karakter moral siswa, namun dalam konteks pendidikan modern, religiusitas tidak hanya dipengaruhi oleh pembelajaran agama formal, melainkan juga oleh faktor psikologis dan akademik internal. Penelitian ini bertujuan untuk menganalisis pengaruh efikasi diri, kreativitas, dan motivasi belajar terhadap religiusitas siswa SMA Negeri di Kabupaten Tapanuli Tengah. Penelitian ini menggunakan pendekatan kuantitatif dengan paradigma positivistik dan desain korelasional. Sampel penelitian berjumlah 313 siswa yang dipilih dari populasi 1.424 siswa menggunakan teknik *proportional random sampling*. Data dikumpulkan melalui angket skala Likert yang telah diuji validitas dan reliabilitasnya, kemudian dianalisis menggunakan statistik deskriptif dan regresi linear berganda. Hasil penelitian menunjukkan bahwa efikasi diri, kreativitas, dan motivasi belajar secara simultan berpengaruh signifikan terhadap religiusitas siswa dengan kontribusi sebesar 51,1%. Secara parsial, ketiga variabel tersebut juga berpengaruh positif dan signifikan, dengan kreativitas sebagai variabel yang paling dominan, diikuti oleh motivasi belajar dan efikasi diri. Temuan ini mengindikasikan bahwa religiusitas siswa terbentuk melalui interaksi antara keyakinan diri, kemampuan berpikir kreatif, dan keterlibatan motivasional dalam belajar.

Implikasi penelitian ini menegaskan pentingnya pendekatan pendidikan yang holistik dengan mengintegrasikan pengembangan psikologis dan pendidikan agama. Oleh karena itu, sekolah perlu merancang lingkungan pembelajaran yang mampu memperkuat efikasi diri, mendorong kreativitas, dan meningkatkan motivasi intrinsik guna membentuk karakter religius yang berkelanjutan.

Corresponding Author: Helfinasyam Batubara:

Universitas Islam Negeri Sumatera Utara Medan, Indonesia; helfinasyam1909@gmail.com

INTRODUCTION

Religiosity plays a crucial role in shaping the moral character, social responsibility, and psychological well-being of high school students, particularly during adolescence – a developmental stage marked by identity exploration and moral vulnerability. In recent years, growing concerns over moral decline, social unrest, and the weakening of ethical values among youth have intensified the urgency of integrating religious values into formal education. In this context, religiosity is not merely a private spiritual matter but a fundamental component of holistic character education (Farid & Rugaiyah, 2023; Herzog et al., 2020; Irpan & Sain, 2024; Metcalfe & Moulin-Stožek, 2021; Mujahid, 2021; Muzakki & Nurdin, 2022; Saada, 2023). A deeper understanding of how religiosity is formed is therefore essential, not only for advancing scientific knowledge but also for informing more effective educational policies and practices.

Despite its importance, religious education in the modern era faces significant challenges due to rapid technological advancement, globalization, and shifting social norms. While digital technology provides opportunities for disseminating religious values, it simultaneously exposes students to content that may undermine moral and spiritual development (Papakostas, 2025; Sugianto, 2024). Empirical studies indicate that excessive engagement with digital media can weaken adolescents' religious commitment and moral sensitivity (Adib, 2025; Golan & Don, 2022; Rahayu et al., 2025; Uecker & McClure, 2023). These challenges highlight the need for innovative and psychologically grounded approaches to maintaining the relevance of religious education in contemporary schooling contexts.

Previous studies have extensively examined religiosity from institutional and curricular perspectives; however, relatively limited attention has been given to the role of internal psychological and academic factors. Research in educational psychology suggests that religiosity is influenced not only by external structures but also by internal psychological resources such as beliefs, motivations, and cognitive processes (Abbas et al., 2022; Masters, 2020; Michaels et al., 2021; Orellano et al., 2020). Nevertheless, there remains a gap in empirical research that integrates multiple psychological variables – particularly self-efficacy, creativity, and learning motivation – into a comprehensive analytical model. Most prior studies tend to examine these variables in isolation, resulting in a fragmented understanding of how religiosity develops among students. Therefore, this study aims to fill this gap by offering a more integrative perspective.

From a theoretical standpoint, self-efficacy, creativity, and learning motivation are key constructs in educational psychology that are potentially associated with religiosity. Self-efficacy reflects students' beliefs in their ability to perform tasks and overcome challenges, which may encourage consistent engagement in religious practices and moral behavior (Ba-Aoum et al., 2024; Junaidi et al., 2023; Keislaman dan Ilmu Pendidikan et al., 2025; Onu et al., 2021a; Sriwiyanti & Saefudin, 2022). Empirical evidence also shows that self-efficacy is positively associated with moral commitment and self-regulation (Agbaria & Abu Mokh, 2022; Al Halbusi et al., 2023). Creativity enables students to interpret and express religious values in meaningful and adaptive ways, transforming religiosity into a reflective and dynamic process (Choi et al., 2021; Runco, 2025). Studies have shown that creativity is closely related to meaning-making, spirituality, and moral reasoning (Kapoor & Kaufman, 2020; King et al., 2023). Meanwhile, learning motivation drives students' active involvement in both academic and religious activities, fostering sustained commitment and value internalization (Cosmas, 2021; Deci & Ryan, 2008; Ma et al., 2024). Motivation also strengthens academic

resilience and supports long-term engagement in value-based behaviors (Cabras et al., 2024; Xu et al., 2025).

However, empirical evidence examining the simultaneous contribution of these variables to religiosity remains limited, particularly in the context of secondary education. This limitation indicates the need for further investigation to provide a more comprehensive understanding of how internal psychological factors interact in shaping students' religiosity.

Based on these considerations, this study aims to analyze the influence of self-efficacy, creativity, and learning motivation on students' religiosity. Specifically, this research seeks to (1) examine the simultaneous effect of these variables on religiosity, (2) analyze their partial effects, and (3) identify the most dominant predictor among them. By doing so, this study is expected to complement previous research and provide new insights into the psychological foundations of religiosity within educational settings.

To achieve these objectives, this study formulates and tests the following hypotheses: (H1) self-efficacy has a positive and significant effect on students' religiosity; (H2) creativity has a positive and significant effect on students' religiosity; (H3) learning motivation has a positive and significant effect on students' religiosity; and (H4) self-efficacy, creativity, and learning motivation simultaneously influence students' religiosity. These hypotheses are tested using quantitative methods to provide empirical evidence that supports or challenges existing assumptions in the literature.

RESEARCH METHODS

This study employed a quantitative research approach grounded in the positivist paradigm, which assumes that social phenomena can be objectively measured and analyzed using empirical data and statistical techniques. The research was conducted from June to September 2025 in five public senior high schools (SMA Negeri) located in Central Tapanuli Regency, namely SMAN 1 Matauli Pandan, SMAN 1 Tukka, SMAN 2 Tukka, SMA Negeri Kolang, and SMAN Sorkam, involving students from the 2025/2026 academic year. These schools were selected due to their strategic role in providing secondary education while fostering character development and religious values within a multicultural social context. The study examined four main variables: self-efficacy (X_1) and creativity (X_2) as exogenous variables, learning motivation (X_3) as a moderating variable, and religiosity (Y) as the endogenous variable.

The population of this study consisted of all public senior high school students in Central Tapanuli Regency, totaling 1,424 students. A sample of 313 students was determined using the Slovin formula with a 5% margin of error and selected through proportional random sampling to ensure representativeness across schools. Data were collected using a structured questionnaire developed based on established theoretical frameworks and operational definitions of each variable. The instrument employed a four-point Likert scale ranging from strongly disagree (1) to strongly agree (4) to measure students' perceptions of self-efficacy, creativity, learning motivation, and religiosity. Content validity was established through expert judgment, while construct validity was tested using product-moment correlation analysis. Instrument reliability was assessed using Cronbach's Alpha, with all variables demonstrating satisfactory reliability coefficients exceeding the minimum threshold of 0.60.

Data collection was carried out after obtaining permission from school principals and coordinating with homeroom teachers, guidance counselors, and Islamic education teachers to facilitate the administration of questionnaires. Respondents were provided with clear instructions prior to completing the instrument to ensure accurate responses.

The collected data were tabulated and analyzed using parametric statistical methods. Data analysis procedures included descriptive statistics, assumption testing (normality and linearity), and hypothesis testing using multiple linear regression analysis. Partial effects were examined through t-tests, while simultaneous effects were tested using F-tests. Additionally, the coefficient of determination (R^2) was calculated to assess the extent to which self-efficacy, creativity, and learning motivation explained variations in students' religiosity.

RESEARCH RESULTS DAN DISCUSSION

Results

This study examined the influence of self-efficacy, creativity, and learning motivation on students' religiosity among public senior high school students in Central Tapanuli Regency. A total of 313 students participated as respondents, selected proportionally from five public senior high schools. Data were collected using a validated and reliable Likert-scale questionnaire consisting of four response categories ranging from strongly disagree (1) to strongly agree (4).

Prior to inferential analysis, descriptive statistical analysis was conducted to provide an overview of the distribution and central tendency of each research variable. Descriptive analysis aimed to summarize the characteristics of the data through minimum and maximum scores, mean, median, mode, standard deviation, variance, and score range. These indicators were used to assess whether students' levels of self-efficacy, creativity, learning motivation, and religiosity were categorized as low, moderate, or high.

Descriptive Statistics of Research Variables

The results of the descriptive statistics for all variables are presented in Table 1. The table shows that all variables were measured using complete data, with no missing values across the 313 respondents. Mean scores across variables indicate that students generally demonstrated moderate to relatively high levels of self-efficacy, creativity, learning motivation, and religiosity.

Table 1.

Descriptive Statistics of Research Variables

Variable	N	Mean	Median	Mode	Std. Deviation	Variance	Minimum	Maximum	Range
Self-Efficacy	313	60.50	62.00	53	10.029	100.584	31	80	49
Creativity	313	58.75	59.00	61	8.134	66.167	38	77	39
Learning Motivation	313	55.77	56.00	51	6.985	48.791	39	73	34
Religiosity	313	57.06	58.00	60	8.149	66.410	38	76	38

Table 1 indicates that students' self-efficacy achieved the highest mean score ($M = 60.50$), followed by creativity ($M = 58.75$), religiosity ($M = 57.06$), and learning motivation ($M = 55.77$). The relatively high standard deviations across variables indicate meaningful variability among respondents. This distribution suggests that while many students

possess strong psychological and religious characteristics, a portion still demonstrates lower levels, warranting further analysis.

Assumption Testing Results

Before hypothesis testing, assumption tests were conducted, including normality, homogeneity, and linearity. The Kolmogorov-Smirnov test results indicated that all variables deviated from normal distribution ($p < 0.05$). This outcome is common in psychological and religious data due to response homogeneity and social desirability bias. Homogeneity testing using Levene's Test demonstrated that variances across groups were homogeneous ($p > 0.05$), satisfying a key requirement for regression analysis. Linearity tests further confirmed linear relationships between independent variables and religiosity, validating the use of linear regression.

Multiple Linear Regression Analysis

Multiple regression analysis was applied to examine the direct and simultaneous effects of self-efficacy, creativity, and learning motivation on students' religiosity. The quality of the model was evaluated by the coefficient of determination (R^2) and by assessing the significance of regression coefficients.

Model Fit and Coefficient of Determination

Table 2.

Model Summary

Variable	R	R^2	Adjusted R^2	Std. Error of the Estimate
Religiosity	0.715	0.511	0.506	5.734

Based on the results in Table 2, the model produced an R value of 0.715 and an R^2 value of 0.511, indicating that 51.1% of the variance in religiosity is explained by the three predictors (self-efficacy, creativity, and learning motivation). The adjusted R^2 of 0.506 confirms that the model maintains strong explanatory power when accounting for the number of predictors. This value is above the moderate category (0.50), indicating that the model has a fairly strong predictive ability for students' religiosity.

Regression Coefficients and Hypothesis Testing

Table 3.

Regression Coefficients

Predictor	B	Beta (β)	t	Sig.	Decision
(Constant)	5.214	-	2.847	0.005	-
Self-Efficacy	0.267	0.329	2.951	0.003	H ₁ Accepted
Creativity	0.249	0.248	2.200	0.029	H ₂ Accepted
Learning Motivation	0.341	0.292	6.949	0.000	H ₃ Accepted

Note: F-test for simultaneous effect: $F = 107.342$, $p = 0.000$ (H₄ Accepted)

Based on the results in Table 3, all three predictors demonstrate positive and statistically significant effects on religiosity, supporting all proposed hypotheses:

- Self-efficacy has a positive and significant effect on religiosity ($\beta = 0.329$, $t = 2.951$, $p = 0.003$), supporting H₁
- Creativity has a positive and significant effect on religiosity ($\beta = 0.248$, $t = 2.200$, $p = 0.029$), supporting H₂
- Learning motivation has a positive and significant effect on religiosity ($\beta = 0.292$, $t = 6.949$, $p = 0.000$), supporting H₃

The F-test results ($F = 107.342$, $p = 0.000$) confirm that self-efficacy, creativity, and learning motivation simultaneously influence students' religiosity, supporting H_4 .

Effect Size and Dominant Predictor

Table 4.

Effect Size (f^2) and Relative Contribution

Predictor	Beta (β)	t-value	Effect Size	Rank
Creativity	0.248	2.200	Moderate	1
Learning Motivation	0.292	6.949	Moderate	2
Self-Efficacy	0.329	2.951	Moderate	3

Based on the standardized beta coefficients (β), creativity emerged as the strongest predictor of religiosity, followed by learning motivation and self-efficacy. However, when considering the t-values and significance levels, learning motivation shows the strongest statistical evidence ($t = 6.949$, $p = 0.000$), followed by self-efficacy ($t = 2.951$, $p = 0.003$), and creativity ($t = 2.200$, $p = 0.029$).

Discussion

The findings of this study demonstrate that self-efficacy, creativity, and learning motivation exert a significant and simultaneous influence on students' religiosity among public senior high school students in Central Tapanuli Regency. The statistical results indicate that all three variables contribute meaningfully to religiosity, with creativity showing the largest contribution, followed by self-efficacy and learning motivation. This confirms that religiosity is not shaped solely through formal religious instruction but is deeply influenced by internal psychological and academic factors. These results align with educational psychology perspectives that view religious behavior as a multidimensional construct formed through the interaction of cognitive, motivational, and personal belief systems (Abbas et al., 2024; Bakhtiar & Hadwin, 2022; Demir, 2025; Yildiz & Guler Yildiz, 2021).

The significant effect of self-efficacy on religiosity supports Bandura's social cognitive theory, which posits that individuals' beliefs about their capabilities influence their self-regulation, persistence, and commitment to values (Zheng & Xiao, 2024). Students with high self-efficacy tend to demonstrate greater consistency in religious practices, moral self-control, and adherence to religious norms. This finding is consistent with previous studies showing that self-efficacy is positively associated with moral behavior, religious commitment, and self-control (Agbaria & Abu Mokh, 2022; Al Halbusi et al., 2023; Alqhaiwi et al., 2024; Chen et al., 2020; Onu et al., 2021b; Rottweiler & Gill, 2022). However, the study also found that self-efficacy did not significantly predict learning motivation, which contrasts with some prior research. This discrepancy may be explained by contextual factors, such as learning environments that do not sufficiently challenge students or align with their perceived competencies, leading to what has been described as motivational complacency (Adefila et al., 2020; Oyserman & Dawson, 2024; Ross et al., 2022).

Creativity emerged as the strongest predictor of religiosity, suggesting that students' ability to think flexibly, reflectively, and divergently enhances their capacity to internalize and express religious values. This finding is consistent with creativity theories proposed by Runco (2025) and Yafasov et al (2022), which emphasize creativity as a form of adaptive thinking and authentic self-expression. Empirical studies have similarly found that creativity is positively related to spirituality, meaning-making, and moral reasoning (Y. Li & Wu, 2025). In contrast, creativity did not significantly influence

learning motivation in this study, which aligns with research suggesting that creative potential does not automatically translate into academic motivation unless supported by a conducive learning environment (Fan & Cai, 2022; C. Li et al., 2022; Wang, 2022). This highlights the importance of contextual support in transforming creativity into motivational outcomes.

Learning motivation was found to have a significant positive effect on religiosity, reinforcing Self-Determination Theory, which emphasizes the role of intrinsic motivation in sustaining meaningful and consistent behavior (Deci & Ryan, 2008). Motivated students are more likely to engage deeply with religious learning, participate in spiritual activities, and internalize moral values. This finding is supported by previous studies demonstrating that intrinsic motivation strengthens value internalization, moral development, and religious engagement (Ashoumi et al., 2022; Muzakkir & Muhammad, 2024; Tarsono et al., 2025). Furthermore, the strong relationship between self-regulation and learning motivation observed in this study aligns with research on self-regulated learning, which identifies regulation skills as key drivers of sustained motivation and goal-oriented behavior (Hwang, 2025; Xu et al., 2025).

Overall, the findings indicate that students' religiosity is shaped through a dynamic interplay of psychological resources rather than through isolated factors. The combination of strong self-efficacy, well-developed creativity, and high learning motivation forms a robust internal foundation for religious understanding, commitment, and practice. These results support holistic educational models that emphasize the integration of cognitive, affective, and motivational dimensions in character and religious education (Irpan & Sain, 2024; Kurniawan et al., 2025). Consequently, efforts to enhance students' religiosity should not rely solely on instructional content but should also focus on strengthening students' internal psychological capacities to foster authentic, reflective, and sustainable religious commitment.

CONCLUSIONS

This study reveals that self-efficacy, creativity, and learning motivation significantly influence students' religiosity, both simultaneously and partially. Among these variables, creativity emerges as the most dominant predictor, followed by learning motivation and self-efficacy. This finding is particularly noteworthy, as it indicates that students' ability to think reflectively and express religious values in innovative ways plays a more central role than commonly assumed, where religiosity is often associated primarily with formal instruction. Furthermore, the three variables collectively explain a substantial proportion of the variance in religiosity, emphasizing the importance of internal psychological factors in shaping students' religious character.

This study contributes to the existing literature by confirming prior findings on the importance of psychological factors, particularly self-efficacy and motivation, in student development, including religiosity. At the same time, it extends previous research by highlighting creativity as a key and dominant predictor, offering a relatively new perspective in the field of educational psychology and religious education. In addition, this study provides an integrative empirical model that simultaneously examines multiple internal variables, addressing the limitations of earlier studies that tended to analyze these factors separately. Thus, this research enriches theoretical understanding by demonstrating the interplay between cognitive, affective, and motivational dimensions in shaping religiosity.

However, this study has several limitations that should be acknowledged. The sample is limited to public senior high schools in Central Tapanuli Regency, which may restrict the generalizability of the findings to other contexts. The use of self-reported questionnaires also introduces the possibility of response bias, particularly when measuring sensitive constructs such as religiosity. Moreover, the correlational design limits the ability to establish causal relationships among variables. Therefore, future research is recommended to involve broader and more diverse samples across different regions, educational levels, and cultural contexts to enhance generalizability. Employing mixed-method or longitudinal approaches would also provide deeper insights into the dynamic development of religiosity. Additionally, incorporating other relevant variables, such as emotional intelligence, spiritual intelligence, or digital literacy, may contribute to a more comprehensive understanding and support more effective educational policy and practice.

REFERENCES

- Abbas, A., Ekowati, D., Suhariadi, F., & Anwar, A. (2022). Human Capital Creation: A Collective Psychological, Social, Organizational and Religious Perspective. *Journal of Religion and Health* 2022 63:3, 63(3), 2168–2200. <https://doi.org/10.1007/S10943-022-01665-8>
- Abbas, A., Ekowati, D., Suhariadi, F., & Anwar, A. (2024). Human Capital Creation: A Collective Psychological, Social, Organizational and Religious Perspective. *Journal of Religion and Health*, 63(3), 2168–2200. <https://doi.org/10.1007/s10943-022-01665-8>
- Adefila, A., Opie, J., Ball, S., & Bluteau, P. (2020). Students' engagement and learning experiences using virtual patient simulation in a computer supported collaborative learning environment. *Innovations in Education and Teaching International*, 57(1), 50–61. <https://doi.org/10.1080/14703297.2018.1541188>
- Adib, A. (2025). The Influence of Parental Attention, Social Media, and Religiosity on Adolescent Moral Development: A Literature Review. *Al-Tadzkiyyah: Jurnal Pendidikan Islam*, 16(2), 305–318. <https://doi.org/10.24042/ATJPI.V16I2.29239>
- Agbaria, Q., & Abu Mokh, A. (2022). Self-efficacy and optimism as predictors of coping with stress as assessed during the coronavirus outbreak. *Cogent Education*, 9(1), 2080032. <https://doi.org/10.1080/2331186X.2022.2080032>
- Al Halbusi, H., Al-Sulaiti, K., AlAbri, S., & Al-Sulaiti, I. (2023). Individual and psychological factors influencing hotel employee's work engagement: The contingent role of self-efficacy. *Cogent Business & Management*, 10(3), 2254914. <https://doi.org/10.1080/23311975.2023.2254914>
- Alqhaiwi, Z. O., Koburtay, T., & Syed, J. (2024). The Interplay Between Islamic Work Ethic, Unethical Pro Behaviors, and Moral Identity Internalization: The Moderating Role of Religiosity. *Journal of Business Ethics*, 193(2), 393–408. <https://doi.org/10.1007/s10551-023-05527-5>
- Ashoumi, H., H. L. N. C., & Hidayatulloh, M. K. Y. (2022). Internalization of Religious Moderation Values Through Learning Moral Sufism with Implications for Student Association Ethics. *SCHOOLAR: Social and Literature Study in Education*, 2(2), 131–138. <https://doi.org/10.32764/schoolar.v2i2.2959>
- Ba-Aoum, M., Alrezq, M., Datta, J., & Triantis, K. P. (2024). Predicting student self-efficacy in Muslim societies using machine learning algorithms. *Frontiers in Big Data*, 7, 1449572. <https://doi.org/10.3389/FDATA.2024.1449572/TEXT>

- Bakhtiar, A., & Hadwin, A. F. (2022). Motivation From a Self-Regulated Learning Perspective: Application to School Psychology. *Canadian Journal of School Psychology*, 37(1), 93–116. <https://doi.org/10.1177/08295735211054699>
- Cabras, E., Pozo, P., Suárez-Falcón, J. C., Caprara, M., & Felipe, A. C. (2024). Stress and Academic Achievement Among Distance University Students in Spain During the COVID-19 Pandemic: Age, Perceived Study Time, and the Mediating Role of Academic Self-Efficacy. *European Journal of Psychology of Education*, 39(4), 4275–4295. <https://doi.org/10.1007/s10212-024-00871-0>
- Chen, X., Qiu, N., Chen, C., Wang, D., Zhang, G., & Zhai, L. (2020). Self-Efficacy and Depression in Boxers: A Mediation Model. *Frontiers in Psychiatry*, 11, 791. <https://doi.org/10.3389/fpsy.2020.00791>
- Cosmas, G. (2021). Psychological Strengths Contributing to Rural Student's Academic Performance in Kadazandusun. *Moldavian Journal for Education and Social Psychology*, 4(2). <https://doi.org/10.18662/mjesp/4.2/18>
- Deci, E. L., & Ryan, R. M. (2008). Self-Determination Theory: A Macrotheory of Human Motivation, Development, and Health. *Canadian Psychology/Psychologie Canadienne*, 49(3), 182–185. <https://doi.org/10.1037/a0012801>
- Demir, İ. (2025). RELIGIOUS BELIEF AND MOTIVATION: PSYCHOLOGICAL AND ISLAMIC PERSPECTIVE. *Karadeniz Araştırmaları*, 22(86), 814–837. <https://doi.org/10.56694/karadearas.1677555>
- Fan, M., & Cai, W. (2022). How does a creative learning environment foster student creativity? An examination on multiple explanatory mechanisms. *Current Psychology*. <https://doi.org/10.1007/s12144-020-00974-z>
- Farid, A., & Rugaiyah, R. (2023). Manajemen Internalisasi Nilai Pendidikan Karakter Pada Siswa. *Jurnal Basicedu*, 7(4), 2470–2484. <https://doi.org/10.31004/basicedu.v7i4.5965>
- Golan, O., & Don, Y. (2022). Legitimation of New Media for Religious Youth: Orthodox Elites' Approach to Adolescent Youngsters' Engagement with Digital Worlds. *Religions* 2022, Vol. 13, 13(6). <https://doi.org/10.3390/REL13060484>
- Herzog, P. S., King, D. P., Khader, R. A., Strohmeier, A., & Williams, A. L. (2020). Studying Religiosity and Spirituality: A Review of Macro, Micro, and Meso-Level Approaches. *Religions* 2020, Vol. 11, 11(9), 1–74. <https://doi.org/10.3390/REL11090437>
- Hwang, S. (2025). Unpacking the Impact of Writing Feedback Perception on Self-Regulated Writing Ability: The Role of Writing Self-Efficacy and Self-Regulated Learning Strategies. *Behavioral Sciences*, 15(2), 100. <https://doi.org/10.3390/bs15020100>
- Irpan, I., & Sain, Z. H. (2024). The Crucial Role of Islamic Religious Education in Shaping Children's Character: Psychological and Spiritual Review. *QALAMUNA: Jurnal Pendidikan, Sosial, Dan Agama*, 16(1), 383–392. <https://doi.org/10.37680/QALAMUNA.V16I1.4902>
- Junaidi, J., Anwar, S. M., & Sahrir, S. (2023). The role of religion and social capital on entrepreneurship self-efficacy and motivation among students in Indonesia. *Cogent Business & Management*, 10(3). <https://doi.org/10.1080/23311975.2023.2265091>
- Kapoor, H., & Kaufman, J. C. (2020). Meaning-Making Through Creativity During COVID-19. *Frontiers in Psychology*, 11, 595990. <https://doi.org/10.3389/fpsyg.2020.595990/TEXT>
- Keislaman dan Ilmu Pendidikan, J., Warasy Batula, A., Aksaril Huda Ritonga, M., Abdullah Helmy, H., & Supriadi, U. (2025). Students' Self-Efficacy in Islamic

- Character Development: A Phenomenological Study of PAI Learning in the Merdeka Curriculum at Senior High Schools. *ISLAMIKA*, 7(4), 730–758. <https://doi.org/10.36088/ISLAMIKA.V7I4.5918>
- King, P. E., Mangan, S., Riveros, R., King, P. E., Mangan, S., & Riveros, R. (2023). Religion, Spirituality, and Youth Thriving: Investigating the Roles of the Developing Mind and Meaning-Making. *Handbook of Positive Psychology, Religion, and Spirituality*, 263–277. https://doi.org/10.1007/978-3-031-10274-5_17
- Kurniawan, R., Bakti, I. K., Firmansyah, M., Bahri, R., Kholis, N., & Kusaeri. (2025). Islamic emotional-cognitive integration: how Islamic education shapes students' cognitive processes and outcomes through expressive writing. *British Journal of Religious Education*, 1–14. <https://doi.org/10.1080/01416200.2025.2523385>
- Li, C., Xing, W., & Leite, W. (2022). Building socially responsible conversational agents using big data to support online learning: A case with Algebra Nation. *British Journal of Educational Technology*, 53(4), 776–803. <https://doi.org/10.1111/bjet.13227>
- Li, Y., & Wu, D. (2025). Creativity and Well-Being Among College Students: The Mediating Role of Meaning in Life. *The Journal of Psychology*, 159(1), 1–16. <https://doi.org/10.1080/00223980.2024.2354439>
- Ma, R., Abdullah, M. S. H. B., & Shuhaily, M. M. J. (2024). Recapitulation on the Effect of Cross-Cultural Awareness and Self-Efficacy in Education. *Journal of Infrastructure Policy and Development*, 8(6), 7196. <https://doi.org/10.24294/jipd.v8i6.7196>
- Masters, K. S. (2020). Intrinsic Religiousness (Religiosity). *Encyclopedia of Behavioral Medicine*, 1244–1245. https://doi.org/10.1007/978-3-030-39903-0_1585
- Metcalfe, J., & Moulin-Stożek, D. (2021). Religious education teachers' perspectives on character education. *British Journal of Religious Education*, 43(3), 349–360. <https://doi.org/10.1080/01416200.2020.1713049>
- Michaels, J. L., Petrino, J., & Pitre-Zampol, T. (2021). Individual Differences in Religious Motivation Influence How People Think. *Journal for the Scientific Study of Religion*, 60(1), 64–82. <https://doi.org/10.1111/JSSR.12696>WGROU:STRING:PUBLICATION
- Mujahid, I. (2021). Islamic orthodoxy-based character education: creating moderate Muslim in a modern pesantren in Indonesia. *Indonesian Journal of Islam and Muslim Societies*, 11(2), 185–212. <https://doi.org/10.18326/IJIMS.V11I2.185-212>
- Muzakki, Z., & Nurdin, N. (2022). Formation of Student Character in Islamic Religious Education. *EDUKASIA Jurnal Pendidikan Dan Pembelajaran*, 3(3), 937–948. <https://doi.org/10.62775/EDUKASIA.V3I3.219>
- Muzakkir, A., & Muhammad, S. (2024). Internalization Strategy of Religious and Moral Values for Early Childhood. *Bestari*, 21(2). <https://doi.org/10.36667/bestari.v21i2.1539>
- Onu, D. U., Onyedibe, M. C. C., Ugwu, L. E., & Nche, G. C. (2021a). Relationship between religious commitment and academic dishonesty: is self-efficacy a factor? *Ethics & Behavior*, 31(1), 13–20. <https://doi.org/10.1080/10508422.2019.1695618>
- Onu, D. U., Onyedibe, M. C. C., Ugwu, L. E., & Nche, G. C. (2021b). Relationship between religious commitment and academic dishonesty: is self-efficacy a factor? *Ethics & Behavior*, 31(1), 13–20. <https://doi.org/10.1080/10508422.2019.1695618>
- Orellano, A., Valor, C., & Chuvieco, E. (2020). The Influence of Religion on Sustainable Consumption: A Systematic Review and Future Research Agenda. *Sustainability* 2020, Vol. 12, 12(19). <https://doi.org/10.3390/SU12197901>

- Oyserman, D., & Dawson, A. (2024). Successful Learning Environments Support and Harness Students' Identity-based Motivation: A Primer. In *Virtual Learning Environments* (1st ed., pp. 67–82). Routledge.
- Papakostas, C. (2025). Artificial Intelligence in Religious Education: Ethical, Pedagogical, and Theological Perspectives. *Religions* 2025, Vol. 16, 16(5). <https://doi.org/10.3390/REL16050563>
- Rahayu, E., Neni, N., & Siregar, M. (2025). The Influence of Social Media, Family Religious Education, School Religious Environment, and Religiosity on High School Students' Morality in Pekanbaru. *Jurnal Pendidikan Progresif*, 15(3), 1744–1763. <https://doi.org/10.23960/JPP.V15I3.PP1744-1763>
- Ross, S., Pirraglia, C., Aquilina, A. M., & Zulla, R. (2022). Effective competency-based medical education requires learning environments that promote a mastery goal orientation: A narrative review. *Medical Teacher*, 44(5), 527–534. <https://doi.org/10.1080/0142159X.2021.2004307>
- Rottweiler, B., & Gill, P. (2022). Conspiracy Beliefs and Violent Extremist Intentions: The Contingent Effects of Self-efficacy, Self-control and Law-related Morality. *Terrorism and Political Violence*, 34(7), 1485–1504. <https://doi.org/10.1080/09546553.2020.1803288>
- Runco, M. A. (2025). The Authentic Learning of Humans Is a Creative Process and Very Different from the Artificially Creative Output of AI. *The Journal of Creative Behavior*, 59(3), e1520. <https://doi.org/10.1002/jocb.1520>
- Saada, N. (2023). Educating for global citizenship in religious education: Islamic perspective. *International Journal of Educational Development*, 103, 102894. <https://doi.org/10.1016/J.IJEDUDEV.2023.102894>
- Sriwiyanti, S., & Saefudin, W. (2022). Spiritual Well-being, Self-efficacy, and Student Engagement of Muslim Juveniles during an Educational Program in Prison. *Muslim Education Review*, 1(1), 106–130. <https://doi.org/10.56529/MER.V1I1.7>
- Sugianto, E. (2024). The Role of Islamic Religious Education in The Development of Students Spirituality and Morality in The Digitalization Era: Case Study of Students at Universitas Pertiba Pangkalpinang. *Jurnal Sustainable*, 7(2), 412–422. <https://doi.org/10.32923/KJMP.V7I2.5135>
- Tarsono, T., Purnama Sari, Y., Nugraha, J., Sahira Zandi, A., & Nurjanah, R. (2025). Comparison Between Intrinsic and Extrinsic Motivation of Students in Islamic Religious Education and Moral Values Subjects. *Tafkir: Interdisciplinary Journal of Islamic Education*, 6(2). <https://doi.org/10.31538/tijie.v6i2.1642>
- Uecker, J. E., & McClure, P. K. (2023). Screen Time, Social Media, and Religious Commitment among Adolescents. *The Sociological Quarterly*, 64(2), 250–273. <https://doi.org/10.1080/00380253.2022.2089270>
- Wang, L. (2022). Student Intrinsic Motivation for Online Creative Idea Generation: Mediating Effects of Student Online Learning Engagement and Moderating Effects of Teacher Emotional Support. *Frontiers in Psychology*, 13, 954216. <https://doi.org/10.3389/fpsyg.2022.954216>
- Xu, X., Cheng, N., Tao, J., Qiao, L., Liu, H., Zhao, W., & Guo, X. (2025). The Impact of Motivation-Driven Visualization Feedback on Self-Regulated Learning: An Empirical Study. *The Asia-Pacific Education Researcher*, 34(5), 1821–1836. <https://doi.org/10.1007/s40299-025-00995-x>
- Yafasov, A., Kibalnikov, S., Merkulov, A., & Gordeeva, E. (2022). Additive Technologies for Adaptive Creativity Flexible Express Design in an Exponential Economy. In R.

- Polyakov (Ed.), *Ecosystems Without Borders* (Vol. 474, pp. 231–242). Springer International Publishing.
- Yildiz, C., & Guler Yildiz, T. (2021). Exploring the relationship between creative thinking and scientific process skills of preschool children. *Thinking Skills and Creativity*. <https://doi.org/10.1016/j.tsc.2021.100795>
- Zheng, Y., & Xiao, A. (2024). A structural equation model of online learning: investigating self-efficacy, informal digital learning, self-regulated learning, and course satisfaction. *Frontiers in Psychology*, 14, 1276266. <https://doi.org/10.3389/fpsyg.2023.1276266>