



DEVELOPING THE AL-GHAZALI LEARNING VALUES SCALE: INITIAL EVIDENCE OF VALIDITY AND RELIABILITY AMONG ONLINE LEARNERS

***Pelita Hayati¹, Evi Afifah Hurriyati²**

^{1,2}International Open University, Indonesia

**Email: pelita.hayati@iou-students.com*

Abstract

Learning values play an important role in shaping students' attitudes toward knowledge, discipline, and academic responsibility. Although Al-Ghazali's educational philosophy provides a rich framework for value-based learning, empirical instruments designed to measure these values remain limited in contemporary educational research. This study aimed to examine the initial psychometric properties of the Al-Ghazali Learning Values Scale among students engaged in online learning. The instrument was developed based on key dimensions derived from Al-Ghazali's educational thought, including sincerity in learning, academic ethics, self-reflection, perseverance in seeking knowledge, and the integration of knowledge with moral and spiritual purposes. The preliminary scale consisted of 28 items and was administered to 263 Muslim students enrolled in online learning programs. Item validity was examined using corrected item-total correlation, while internal reliability was assessed using Cronbach's alpha coefficient. The results indicated that all items met the minimum validity criterion and demonstrated strong internal consistency, with a Cronbach's alpha coefficient of 0.894. The Kaiser-Meyer-Olkin statistic also indicated excellent sampling adequacy. These findings provide preliminary empirical evidence supporting the feasibility of the Al-Ghazali Learning Values Scale as a tool for examining value-based learning within the context of contemporary educational research.

Keywords: *Islamic educational philosophy, learning values, instrument development, online learning, Al-Ghazali*

A. Introduction

Education plays a central role in shaping human character, intellectual capacity, and moral orientation. In contemporary educational psychology, learning is no longer understood solely as the acquisition of knowledge but as a multidimensional process that involves cognitive development, emotional regulation, value formation, and personal meaning making (DLT et al., 2022). Educational experiences influence how learners construct motivations, regulate their behavior, and interpret their academic responsibilities. In this sense, learning is closely connected to the values that guide students' attitudes toward knowledge, discipline, and ethical responsibility in academic life.

Islamic educational thought has long emphasized the integration of knowledge, character, and spirituality in the learning process. Within this tradition, education is viewed as a holistic endeavor that aims to cultivate intellectual competence while simultaneously nurturing moral integrity and spiritual awareness (Awang & Jais, 2020; Rassool, 2021). Learning therefore carries ethical and spiritual implications, as the pursuit of knowledge is understood not merely as an intellectual activity but also as a form of moral and religious responsibility.

Among classical Muslim scholars, Imam Abu Hamid Al-Ghazali is widely recognized for his influential contributions to the philosophy of education in Islam. Al-Ghazali conceptualized education as a transformative process that integrates knowledge ('ilm), moral conduct (akhlaq), and spiritual purification (tazkiyat al-nafs). In his writings, learning is closely connected with the formation of virtuous character and the cultivation of sincerity, humility, and self-discipline (Albina, 2023; Fitriani et al., 2024). Education is expected to guide individuals toward a balanced life in which intellectual development is aligned with ethical responsibility and spiritual growth (Jalaldeen & Al-Hidabi, 2025).

Within Al-Ghazali's educational framework, learning values play an essential role in shaping students' attitudes toward knowledge and academic practice. Learning is expected to be grounded in sincerity of intention, ethical conduct toward teachers and knowledge, perseverance in the pursuit of understanding, and continuous self-reflection. These values highlight the moral dimension of learning and emphasize the importance of internal discipline in the educational process (Budiarti et al., 2022). In this view, the act of seeking knowledge becomes inseparable from personal accountability and moral awareness.

Recent developments in educational psychology have also emphasized the importance of values and spirituality in learning processes. Research indicates that spiritual awareness and moral values may strengthen intrinsic motivation, enhance self-regulation, and support academic resilience among students (Latipah et al., 2021). Spiritual orientation can function as an internal psychological resource that helps individuals maintain persistence and meaning when encountering academic challenges (Pargament, 2023; Al Indunissy & Isdianto, 2025). These findings suggest that value-oriented approaches to learning remain relevant for understanding students' academic engagement in contemporary educational contexts.

Despite the strong conceptual foundations of Al-Ghazali's educational thought, most contemporary discussions of his ideas remain largely philosophical or normative. Previous studies have examined themes such as character education, moral cultivation, and the ethical role of teachers within Al-Ghazali's framework (Saputra, 2023; Widyastuti & Dartim, 2025). While these studies contribute to the understanding of Islamic educational philosophy, relatively few attempts have been made to operationalize these values into empirically measurable constructs. As a result, many of the learning values emphasized in classical Islamic scholarship remain difficult to examine within quantitative educational research.

The development of measurement instruments provides an important methodological bridge between theoretical concepts and empirical investigation. In psychological and educational research, measurement scales allow abstract constructs to be examined systematically and compared across contexts. Instrument development typically involves theoretical conceptualization, item construction, expert review, and empirical evaluation of reliability and validity to ensure that the instrument accurately reflects the intended construct (Jebb et al., 2021; Stefana et al., 2024; Ranganathan et al., 2024). Without such measurement tools, many educational values remain difficult to investigate within empirical frameworks.

Several recent studies have attempted to develop instruments related to spiritual or moral values in educational settings. For example, scales designed to assess spiritual values often include dimensions such as gratitude, empathy, honesty, and moral responsibility (Zengin, 2025). These instruments provide useful insights into value-based education, yet they are generally developed within broader frameworks of spirituality or religiosity and are not specifically grounded in Al-Ghazali's educational philosophy. Consequently, important dimensions emphasized in his writings, including sincerity in seeking knowledge, ethical commitment to learning, disciplined effort in study, and the integration of knowledge with spiritual awareness, remain insufficiently represented in existing measurement tools (El-Faizal & Mulya, 2023).

At the same time, the rapid expansion of online learning has introduced new challenges for students' learning behavior and academic discipline. Online learning environments often require higher levels of self-regulation, independence, and personal responsibility compared with traditional classroom settings (Triyakfi, 2021; Turnbull et al., 2021; Yeung & Yau, 2022). Students must manage their own learning schedules, maintain academic integrity, and sustain motivation without continuous supervision from instructors (Ahmad et al., 2023; Kerimbayev et al., 2023). In such contexts, internalized learning values may play an important role in guiding students' attitudes toward knowledge and academic responsibility (Fatmawaty et al., 2023).

Given these considerations, there remains a clear gap between the rich intellectual tradition of Islamic educational thought and the limited availability of empirically tested instruments designed to measure value-based learning constructs derived from classical scholarship. Developing an instrument grounded in Al-Ghazali's educational framework may provide a useful foundation for examining how these values are reflected in students' learning behavior within contemporary educational environments. This study therefore aims to examine the initial psychometric properties of a learning values instrument derived from Al-Ghazali's educational thought among online learners. The research focuses on evaluating item validity and internal reliability as preliminary evidence for the feasibility of using the instrument in future studies on Islamic educational psychology and value-based learning.

B. Methods

Research Design

This study employed a quantitative instrument development approach to examine the initial psychometric properties of the Al-Ghazali Learning Values Scale among online learners. The study focused on evaluating the preliminary feasibility of the instrument by examining item validity and internal reliability. Within educational and psychological research, early-stage instrument testing plays an important role in establishing whether a newly constructed scale can adequately represent the intended construct before further validation procedures are conducted (Jebb et al., 2021; Stefana et al., 2024; Ranganathan et al., 2024).

The development of the instrument followed several stages, including conceptual formulation of the construct, item construction, expert evaluation, pilot testing, and empirical testing with a larger sample. These procedures were intended to ensure that the items reflected the theoretical dimensions derived from Al-Ghazali's educational thought while also meeting basic psychometric requirements.

Conceptualization of the Construct

The construct of Al-Ghazali Learning Values in this study refers to a set of educational principles derived from Al-Ghazali's educational philosophy that emphasize the integration of knowledge, moral conduct, and spiritual awareness in the learning process. In Al-Ghazali's view, education functions as a means of cultivating intellectual understanding while simultaneously nurturing ethical discipline and spiritual refinement. Learning is therefore closely associated with sincerity of intention, moral responsibility, perseverance in seeking knowledge, and reflective self-evaluation.

Based on a review of classical and contemporary literature on Islamic education and Al-Ghazali's educational thought, five conceptual dimensions of learning values were identified:

- 1) Faith and closeness to God, referring to the awareness that learning is a form of worship and spiritual devotion.
- 2) Moral conduct and academic ethics, referring to honesty and responsibility in academic activities.
- 3) Self-control and self-reflection, referring to the ability to regulate emotions and evaluate one's own learning behavior.
- 4) Perseverance and disciplined effort, referring to persistence and consistency in pursuing knowledge.
- 5) Holistic orientation toward knowledge, referring to the integration of academic learning with broader moral and social responsibility.

These dimensions were used as the theoretical foundation for constructing the items included in the scale.

Instrument Development

The initial item pool was constructed based on conceptual indicators derived from the five dimensions of Al-Ghazali learning values. Item formulation was informed by

relevant literature on Islamic educational philosophy and value-based learning in educational psychology. The preliminary scale consisted of 28 items representing the five conceptual dimensions.

To ensure the clarity and relevance of the items, the instrument underwent expert evaluation involving four scholars with expertise in educational psychology and Islamic education. Expert review is an important step in instrument development because it helps establish content relevance and improve item clarity before empirical testing (Elangovan & Sundaravel, 2021). The experts were asked to evaluate the relevance, clarity, and conceptual alignment of each item with the intended construct. Their feedback was used to revise wording and improve the clarity of several items.

Prior to the main data collection, the instrument was tested through two stages of pilot testing. The first pilot involved 30 respondents to assess item readability and comprehension. The second pilot involved 70 respondents to obtain preliminary information regarding the internal consistency of the scale. Based on the results of these pilot stages, minor revisions were made to improve item clarity. In the main data collection stage, the instrument was administered using a Likert-type response format. The response scale ranged from 1 to 6, which was selected to reduce the possibility of central tendency bias by removing a neutral midpoint response option.

Participants and Sampling

Participants in this study consisted of 263 Muslim students enrolled in online learning programs. The sampling procedure used convenience sampling, considering accessibility and participants' willingness to participate in the study. Although this approach does not aim to produce a statistically representative sample, it is commonly used in early stages of instrument development where the primary goal is to examine the initial psychometric performance of newly developed items.

The participants were adult learners between 26 and 40 years of age who were actively engaged in formal online learning programs. This population was considered appropriate for examining learning values in online educational settings because adult learners often demonstrate higher levels of self-regulated learning and independent study behavior.

Data Collection Procedure

Data collection was conducted between September and December 2025. The questionnaire was distributed online through WhatsApp groups and official communication channels used by students enrolled in the International Open University learning programs. Participants completed the questionnaire voluntarily after receiving information regarding the purpose of the study.

Informed consent was obtained prior to participation, and respondents were assured that their responses would remain anonymous and confidential. Participation in the study was entirely voluntary, and respondents were allowed to withdraw at any stage of the survey process.

Data Analysis

Data analysis was conducted in several stages. Descriptive statistics were first used to examine the distribution of respondents' scores on the Al-Ghazali Learning Values Scale. A normality test was then performed to assess whether the data distribution met the assumptions required for parametric analysis. Item validity was examined using Corrected Item–Total Correlation, which evaluates the relationship between each item and the overall scale score. Items with correlation coefficients exceeding the critical value were considered to demonstrate acceptable item discrimination.

Internal consistency reliability was evaluated using Cronbach's alpha coefficient, which measures the extent to which items within a scale consistently represent the same construct. Reliability coefficients above the commonly accepted threshold were interpreted as evidence that the instrument demonstrates satisfactory internal consistency (Razavipour & Raji, 2022; Wong et al., 2023). In addition, measures of sampling adequacy were examined to assess whether the inter-item correlation structure was sufficient for preliminary construct examination. The Kaiser–Meyer–Olkin (KMO) statistic and anti-image correlation values were used to assess whether the data structure was appropriate for examining relationships among items within the scale.

C. Results and Discussion

1. Results

Descriptive Statistics

The first stage of analysis examined the distribution of scores obtained from the Al-Ghazali Learning Values Scale. A total of 263 respondents participated in the study. Descriptive statistics were calculated to provide an overview of the score distribution across the instrument. The empirical scores ranged from 51 to 168, with a mean score of 139.5. The median score was 142.2, and the mode was 136.9. The standard deviation was 15.74, indicating moderate variation among respondents' scores.

These results suggest that the respondents generally demonstrated moderate to relatively high levels of learning values as measured by the instrument. The distribution of scores also indicates that the scale captured variation in respondents' learning attitudes within the sample. Prior to conducting further statistical analysis, a normality test was performed to evaluate whether the data distribution satisfied the assumptions required for parametric analysis. The results indicated that the distribution of scores met the normality assumption, allowing subsequent analyses to proceed.

Item Validity Analysis

Item validity was examined using Corrected Item–Total Correlation, which measures the degree to which each item is associated with the overall scale score. Items with correlation coefficients greater than the critical value were considered to demonstrate acceptable item discrimination.

With a total sample size of 263 respondents, the degree of freedom was calculated as $df = n - 2 = 261$. Based on the Product Moment correlation table at a significance level

of 0.05 (two-tailed), the critical value of $r = 0.121$ was obtained. The results showed that all items exceeded the critical value, indicating that each item contributed meaningfully to the overall construct measured by the scale. The analysis was conducted using SPSS through the Reliability Analysis procedure, which produced corrected item–total correlation coefficients for each item.

Table 1
Item Validity Results for the Al-Ghazali Learning Values Scale

Item	Corrected Item–Total Correlation	r Table	Decision
1	0.410	0.121	Valid
2	0.332	0.121	Valid
3	0.483	0.121	Valid
4	0.628	0.121	Valid
5	0.574	0.121	Valid
6	0.619	0.121	Valid
7	0.567	0.121	Valid
8	0.689	0.121	Valid
9	0.674	0.121	Valid
10	0.712	0.121	Valid
11	0.642	0.121	Valid
12	0.557	0.121	Valid
13	0.645	0.121	Valid
14	0.668	0.121	Valid
15	0.628	0.121	Valid
16	0.475	0.121	Valid
17	0.568	0.121	Valid
18	0.595	0.121	Valid
19	0.658	0.121	Valid
20	0.575	0.121	Valid
21	0.621	0.121	Valid
22	0.254	0.121	Valid
23	0.509	0.121	Valid
24	0.625	0.121	Valid
25	0.176	0.121	Valid
26	0.508	0.121	Valid
27	0.297	0.121	Valid
28	0.523	0.121	Valid

The results demonstrate that all 28 items exceeded the minimum correlation threshold, indicating that each item contributes to measuring the intended construct. No items were removed at this stage because all items met the minimum validity criterion.

Internal Reliability Analysis

Internal consistency reliability was examined using Cronbach's alpha coefficient. This statistic evaluates the degree to which items within a scale consistently measure the same construct. The analysis produced a Cronbach's alpha value of 0.894, indicating a

high level of internal consistency. Reliability coefficients above 0.70 are generally interpreted as acceptable in educational and psychological research (Razavipour & Raji, 2022; Wong et al., 2023).

Table 2
Internal Reliability of the Al-Ghazali Learning Values Scale

Reliability Coefficient	Estimate	Standard Error	95% CI Lower	95% CI Upper
Cronbach's Alpha	0.894	0.015	0.864	0.923

The reliability coefficient indicates that the items within the scale demonstrate strong internal consistency, suggesting that the instrument provides stable measurement of the learning values construct.

Sampling Adequacy Assessment

To examine whether the data structure showed adequate inter-item correlation patterns, the Kaiser–Meyer–Olkin (KMO) Measure of Sampling Adequacy was calculated. The KMO statistic assesses whether the correlation pattern among items is sufficiently compact to support factor-related analysis.

The analysis produced a KMO value of 0.902, which exceeds the commonly accepted threshold of 0.50. This value indicates excellent sampling adequacy and suggests that the correlation structure among the items is appropriate for examining relationships among the variables. In addition, the anti-image correlation values for the items exceeded 0.50, indicating that the items demonstrate adequate individual sampling adequacy.

Table 3
Sampling Adequacy Indicators

Indicator	Value	Interpretation
KMO Measure of Sampling Adequacy	0.902	Excellent
Anti-Image Correlation	> 0.50	Acceptable

These results indicate that the data structure demonstrates adequate sampling adequacy and inter-item relationships, supporting the suitability of the dataset for examining item relationships within the scale.

2. Discussion

The findings of this study provide initial empirical evidence regarding the psychometric performance of the Al-Ghazali Learning Values Scale among online learners. The results of the item validity analysis indicate that all items met the minimum statistical criterion based on corrected item–total correlation. This finding suggests that each item contributes meaningfully to the measurement of the construct represented by the scale. The validity results therefore indicate that the items included in the instrument adequately reflect the conceptual dimensions derived from Al-Ghazali's educational thought.

The reliability analysis also demonstrated a high level of internal consistency. The Cronbach's alpha coefficient obtained in this study indicates that the items within the scale function cohesively in representing the broader construct of learning values. In educational and psychological measurement, strong internal reliability suggests that the items capture related aspects of a shared conceptual domain. The reliability result therefore supports the stability of the measurement provided by the instrument when applied to the respondents in this study (Razavipour & Raji, 2022; Wong et al., 2023).

The results also indicate strong sampling adequacy, as reflected in the high Kaiser–Meyer–Olkin value. A high KMO statistic suggests that the correlation pattern among the items is sufficiently compact, indicating that the items are related to one another within a common conceptual framework. This result provides additional support for the theoretical coherence of the dimensions proposed in the instrument.

From a theoretical perspective, these findings illustrate that key elements of Al-Ghazali's educational philosophy can be operationalized within contemporary educational research. Al-Ghazali viewed learning as a process that integrates intellectual pursuit with moral discipline and spiritual awareness. In his writings, the act of seeking knowledge is closely connected with sincerity of intention, ethical conduct toward teachers and knowledge, perseverance in learning, and continuous self-reflection. The dimensions represented in the present instrument reflect these principles and translate them into observable learning attitudes among students.

The findings also align with contemporary discussions in educational psychology regarding the role of values and internal motivation in shaping learning behavior. Studies have shown that value-oriented learning frameworks may strengthen intrinsic motivation, support self-regulated learning, and contribute to students' academic resilience (Latipah et al., 2021; Pargament, 2023). Learning values grounded in ethical responsibility and spiritual awareness may therefore function as internal guides that influence students' engagement with academic tasks.

This perspective becomes particularly relevant in the context of online learning environments. Online learning requires students to exercise a high degree of independence, self-regulation, and personal discipline. In the absence of continuous face-to-face supervision, learners often rely on internal motivations and personal values to sustain their academic engagement (Ahmad et al., 2023; Kerimbayev et al., 2023; Yeung & Yau, 2022). The instrument developed in this study provides a preliminary tool for examining how learning values derived from Islamic educational philosophy may influence students' attitudes toward learning in digitally mediated educational settings.

D. Conclusion

This study examined the initial psychometric performance of the Al-Ghazali Learning Values Scale among students engaged in online learning. The results indicate that all items satisfied the minimum statistical criterion for item validity based on corrected item–total correlation analysis. The reliability analysis also demonstrated strong internal consistency, with a Cronbach's alpha coefficient of 0.894. In addition, the

sampling adequacy results indicated that the interrelationships among the items were sufficiently strong, suggesting that the items represent a coherent construct of learning values.

The findings demonstrate that key principles of Al-Ghazali's educational philosophy can be translated into measurable indicators within contemporary educational research. The scale developed in this study reflects several dimensions emphasized in Al-Ghazali's writings, including sincerity in learning, ethical responsibility in academic activities, reflective self-evaluation, perseverance in seeking knowledge, and the integration of knowledge with broader moral and spiritual purposes. By operationalizing these dimensions in a quantitative instrument, this study contributes to the development of value-based measurement tools that connect classical Islamic educational thought with modern research approaches in educational psychology.

This study has several limitations that should be acknowledged. The use of convenience sampling and the focus on a specific population of online learners may limit the generalizability of the findings to other educational settings. In addition, the analysis in this study focused on preliminary evidence of item validity and internal reliability. Further studies may strengthen the empirical foundation of the instrument by conducting more comprehensive psychometric validation with larger and more diverse samples, as well as examining the relationship between Al-Ghazali-based learning values and other constructs in educational psychology such as self-regulated learning, academic resilience, and intrinsic motivation.

References

- Ahmad, S., Mohd Noor, A. S., Alwan, A. A., Gulzar, Y., Khan, W. Z., & Reegu, F. A. (2023). eLearning acceptance and adoption challenges in higher education. *Sustainability*, 15(7). <https://doi.org/10.3390/su15076190>
- Al Indunissy, N., & Isdianto, A. (2025). Integrasi penyembuhan spiritual dan ilmiah dalam 7 metode penyembuhan Al-Qur'an dari Rehab Hati. *Jurnal Education and Development*, 13(3), 1–11. <https://doi.org/10.37081/ed.v13i3.6885>
- Albina, M. (2023). *Filsafat pendidikan Islam: Membangun konsep dasar pendidikan Islam*. Harfa Creative.
- DLT, S. A., Hamidah, H., & Surawan, S. (2022). Self Regulated Learning dalam Belajar Al-Qur'an pada Remaja di Sidomulyo Tumbang Tahai Palangka Raya. *Ilmuna: Jurnal Studi Pendidikan Agama Islam*, 4(2), 117–130. <https://doi.org/10.54437/ilmuna.v4i2.602>
- Awang, S., & Jais, S. M. (2020). Reliability of the Tazkiyatun NAFS module. *International Journal of Academic Research in Business and Social Sciences*, 10(2), 69–82. <https://doi.org/10.6007/IJARBS/v10-i2/6873>

- Budiarti, E. (2022). Relevansi pendidikan Islam Al-Ghazali terhadap growth mindset generasi Z pada masa COVID-19. *Ta'limuna: Jurnal Pendidikan Islam*, 11(1), 1–10. <https://e-journal.staima-alhikam.ac.id/talimuna/article/view/826>
- Elangovan, N., & Sundaravel, E. (2021). Method of preparing a document for survey instrument validation by experts. *MethodsX*, 8, 101326. <https://doi.org/10.1016/j.mex.2021.101326>
- El-Faizal, R., & Mulya. (2023). Islamic child personality education concepts by Al-Ghazali. *MAQOLAT: Journal of Islamic Studies*, 1(1), 6–11. <https://doi.org/10.58355/maqolat.v1i1.2>
- Fatmawaty, F., Zakaria, M. A., & Hartono, H. (2023). Pengembangan bahan ajar pendidikan agama Islam berbasis kecerdasan emosional dan kecerdasan spiritual kelas X di SMA IT Wahdah Islamiyah Pomalaa. *Journal on Education*, 5(4), 11334–11344. <https://doi.org/10.31004/joe.v5i4.2074>
- Fitriani, A., Talitha, A. S., Riady, S. A., & Nashori, F. (2024). Tawakal dan resiliensi akademik dalam setting blended learning pada mahasiswa Muslim di Yogyakarta. *Psychopolytan: Jurnal Psikologi*, 8(1), 34–43. <https://doi.org/10.36341/psi.v8i1.4102>
- Jalaldeem, J., & Dawood Al-Hidabi. (2025). Al-Ghazali's framework of teachings professional values: Analyzing the pedagogical principles in Islamic education. *Al-Burhān: Journal of Qur'ān and Sunnah Studies*, 9(1), 27–46. <https://journals.iium.edu.my/al-burhan/index.php/al-burhan/article/view/363>
- Jebb, A. T., Ng, V., & Tay, L. (2021). A review of key Likert scale development advances: 1995–2019. *Frontiers in Psychology*, 12, Article 637547. <https://doi.org/10.3389/fpsyg.2021.637547>
- Kerimbayev, N., Umirzakova, Z., Shadiev, R., & Jotsov, V. (2023). A student-centered approach using modern technologies in distance learning: A systematic review of the literature. *Smart Learning Environments*, 10, Article 52. <https://doi.org/10.1186/s40561-023-00280-8>
- Latipah, E., Adi, H. C., & Insani, F. D. (2021). Academic procrastination of high school students during the COVID-19 pandemic: Review from self-regulated learning and the intensity of social media. *Dinamika Ilmu*, 21(2), 293–308. <https://doi.org/10.21093/di.v21i2.3444>
- Pargament, K. I. (2023). From research to practice: Three waves in the evolution of the psychology of religion and spirituality. *Spiritual Psychology and Counseling*, 8(3), 207–225. <https://doi.org/10.37898/spc.2023.8.3.191>
- Ranganathan, P., Caduff, C., & Frampton, C. M. A. (2024). Designing and validating a research questionnaire: Part 2. *Perspectives in Clinical Research*. https://doi.org/10.4103/picr.picr_318_23
- Rassool, G. H. (2021). *Islamic psychology: Human behaviour and experience from an Islamic perspective*. Taylor & Francis. <https://doi.org/10.4324/9780429354762>
- Razavipour, K., & Raji, B. (2022). Reliability of measuring constructs in applied linguistics research: A comparative study of domestic and international graduate theses. *Language Testing in Asia*, 12, Article 5. <https://doi.org/10.1186/s40468-022->

00166-5

- Saputra, D. (2023). Konsep pendidikan karakter anak perspektif Imam Al-Ghazali dalam kitab *Ayyuha Al-Walad* dan relevansinya ditengah modernisasi pendidikan. *Adabuna: Jurnal Pendidikan dan Pemikiran*, 3(1), 35–45. <https://doi.org/10.38073/adabuna.v3i1.996>
- Stefana, A., Damiani, S., Granziol, U., Provenzani, U., Solmi, M., Youngstrom, E. A., & Fusar-Poli, P. (2024). Psychological, psychiatric, and behavioral sciences measurement scales: Best practice guidelines for their development and validation. *Frontiers in Psychology*, 15, Article 1494261. <https://doi.org/10.3389/fpsyg.2024.1494261>
- Triyakfi, H. (2021). Motipdyta sebagai alternatif solusi pembelajaran jarak jauh di daerah terkendala jaringan. *Jurnal Pancar (Pendidik Anak Cerdas dan Pintar)*, 5(2), 138–144. <https://jurnal.unugha.ac.id/index.php/pancar/article/view/184>
- Turnbull, D., Chugh, R., & Luck, J. (2021). Transitioning to e-learning during the COVID-19 pandemic: How have higher education institutions responded to the challenge? *Education and Information Technologies*, 26(5), 6401–6419. <https://doi.org/10.1007/s10639-021-10633-w>
- Widyastuti, I., & Dartim, D. (2025). Pemikiran Al-Ghazali dalam pengembangan kurikulum pendidikan agama Islam di era digital. *Ideguru: Jurnal Karya Ilmiah Guru*, 10(2), 1041–1049. <https://doi.org/10.51169/ideguru.v10i2.1616>
- Wong, V., Yun, S., Ulang, N., & Husain, S. H. (2023). Measuring the internal consistency and reliability of the hierarchy of controls in preventing infectious diseases on construction sites: The Kuder-Richardson (KR-20) and Cronbach's alpha. *Journal of Occupational Safety and Health*, 20(1), 392–405. <https://doi.org/10.37934/araset.33.1.392405>
- Yeung, M. W. L., & Yau, A. H. Y. (2022). A thematic analysis of higher education students' perceptions of online learning in Hong Kong under COVID-19: Challenges, strategies and support. *Education and Information Technologies*, 27(1), 181–208. <https://doi.org/10.1007/s10639-021-10656-3>
- Zengin, E. (2025). The development and validation of the spiritual values scale for primary school children in the Turkish context. *Journal of Religion and Health*, 64(4), 3003–3025. <https://doi.org/10.1007/s10943-025-02378-4>