



## FROM ISLAMIC VALUES TO A SUSTAINABLE FUTURE: THE INFLUENCE OF TRANSFORMATIVE ISLAMIC LEADERSHIP ON EDUCATIONAL QUALITY, INSTITUTIONAL RESILIENCE, AND GLOBAL CITIZENSHIP

Hendy Aldian<sup>1\*</sup>, Lalu Suryandi<sup>2</sup>, Maimun<sup>2</sup>

<sup>1</sup>Universitas Islam Negeri Mataram, Mataram 83116, Indonesia

<sup>2</sup>Institut Agama Islam Qamarul Huda Bagu, Central Lombok, Indonesia

\*[hendyaldian007@gmail.com](mailto:hendyaldian007@gmail.com)

### Abstract

Transformative Islamic leadership plays a strategic role in guiding educational institutions to respond to social change, global challenges, and the demands of sustainable development. Islamic values manifested through visionary, participatory, ethical, and change-oriented leadership have the potential to strengthen educational quality, institutional resilience, and global citizenship. This study aims to examine the partial effects of transformative Islamic leadership on educational quality, institutional resilience, and global citizenship, as well as its simultaneous effect on these three outcomes. This study employed a quantitative approach using a non-experimental survey design. The population consisted of educators and educational staff in Islamic educational institutions, with the sample determined proportionally according to population characteristics. Data were collected through observation and structured questionnaires and analyzed using multivariate regression. The results show that transformative Islamic leadership has a significant partial effect on educational quality ( $F = 122.963$ ,  $p < .001$ ) and institutional resilience ( $F = 148.254$ ,  $p < .001$ ). However, its partial effect on global citizenship is not statistically significant ( $F = 1.335$ ,  $p = .249$ ). In the simultaneous analysis, transformative Islamic leadership has a significant multivariate effect on educational quality, institutional resilience, and global citizenship, as indicated by Wilks' Lambda = .670,  $F(3, 329) = 54.125$ ,  $p < .001$ . These findings indicate that transformative Islamic leadership contributes more directly to internal educational and organizational outcomes, while the development of global citizenship may require additional support through curriculum, pedagogy, intercultural learning, and participatory experiences. Overall, strengthening transformative Islamic leadership through Islamic ethical values, leadership capacity development, participatory governance, innovation, and global orientation is important for developing Islamic educational institutions that are high-quality, resilient, adaptive, and responsive to global challenges.

**Keywords** *Transformative Islamic Leadership, Educational Quality, Institutional Resilience, Global Citizenship*

## INTRODUCTION

Education has increasingly been positioned not merely as a mechanism for transmitting knowledge but as a strategic institution for shaping societies capable of responding to complex global transformations. At the international level, Sustainable Development Goal 4 explicitly emphasizes inclusive and equitable quality education and lifelong learning, while Target 4.7 calls for learners to acquire knowledge, skills, values, and attitudes that support sustainable development, human rights, peace, cultural diversity, and global citizenship. Within this normative framework, educational institutions are expected to produce not only academically competent graduates but also socially responsible individuals who are capable of participating constructively in an interconnected world. UNESCO further emphasizes that education for sustainable development (ESD) and global citizenship education (GCED) require transformative approaches capable of

developing cognitive, socio-emotional, and behavioral competencies so that learners can become agents of positive change (UNESCO, 2022, 2023). Consequently, educational quality in the contemporary era can no longer be understood exclusively through academic achievement, institutional accreditation, or administrative efficiency; it increasingly encompasses the institution's capacity to cultivate ethical responsibility, social engagement, adaptability, and sustainability-oriented citizenship.

This normative expectation is particularly significant for Islamic educational institutions because their educational mission is intrinsically connected to moral, spiritual, and social formation. Islamic education does not traditionally separate intellectual development from ethical responsibility; rather, knowledge is expected to contribute to the formation of individuals who possess integrity, responsibility, justice, excellence, and concern for society. Recent scholarship on Islamic educational leadership indicates that Islamic values can provide an ethical foundation for leadership by emphasizing amanah (trustworthiness), 'adl (justice), ihsan (excellence), consultation (shura), exemplary conduct, and responsibility toward the community (Irawan et al., 2022; Marjuni, 2021). Thus, the concept of Islamic leadership should not be reduced to the religious identity of institutional leaders or to compliance with administrative regulations. Instead, it can be understood as a value-based leadership paradigm in which spiritual and ethical commitments shape organizational vision, decision-making, human-resource development, institutional culture, and responses to social change.

De facto, however, educational institutions operate within an increasingly volatile environment characterized by technological disruption, demographic change, economic uncertainty, social polarization, environmental crises, and rapidly changing expectations concerning the competencies of graduates. These pressures expose the limitations of conventional administrative leadership that primarily emphasizes maintaining routines, implementing regulations, and preserving existing structures. Research on school leadership demonstrates that leadership is significantly associated with organizational and educational outcomes, although the magnitude and mechanisms of these effects vary across contexts (Tan et al., 2022). A second-order meta-analysis involving 12 previous meta-analyses and 512 primary studies found an overall positive association between school leadership and school outcomes, suggesting that leadership models and practices remain important explanatory factors in educational improvement (Tan et al., 2022). Similarly, systematic evidence indicates that transformational school leadership can strengthen staff motivation, organizational culture, collaboration, and institutional development (Harris & Jones, 2020; Kılınç et al., 2023). These findings indicate that educational quality is not solely determined by curriculum, infrastructure, or teacher competence but is also shaped by the leadership capacity to create a shared vision, mobilize human resources, stimulate innovation, and sustain organizational commitment.

The challenge becomes more complex when educational quality is considered together with institutional resilience. Educational institutions increasingly face disruptions that require them not simply to recover from crises but to anticipate uncertainty, adapt to changing conditions, and transform institutional practices. Organizational resilience has consequently been conceptualized as a multidimensional capability involving anticipation,

coping, and adaptation rather than merely the ability to return to a previous state after disruption (Duchek, 2020). In educational settings, resilience is particularly important because institutions must maintain learning continuity while simultaneously adapting governance, pedagogy, technology, human-resource management, and stakeholder relationships. Sustainable leadership research similarly emphasizes systems thinking, collaborative responsibility, future orientation, and the capacity to maintain institutional development over time (Al-khamaiseh et al., 2025). Therefore, a resilient educational institution requires leadership that can connect immediate problem-solving with long-term institutional transformation.

At the same time, educational institutions are increasingly expected to cultivate global citizenship. Global citizenship education seeks to develop learners' knowledge, values, attitudes, and competencies so that they can understand global interdependence, respect diversity, engage with social and environmental problems, and participate responsibly in collective solutions (UNESCO, 2022; Ydo, 2023). Empirical and systematic-review research indicates that effective ESD and GCED initiatives can influence learners' knowledge, attitudes, beliefs, and behaviors, particularly when educational experiences integrate theoretical understanding with practical engagement (Chiba et al., 2021). Nevertheless, the development of global citizenship cannot be delegated entirely to curriculum content. Institutional values, leadership practices, organizational culture, teacher behavior, and opportunities for participation collectively determine whether global citizenship becomes a lived educational orientation rather than a rhetorical objective. The intersection between ESD and GCED is therefore increasingly important because both seek to prepare learners to respond constructively to interconnected social, economic, political, cultural, and environmental challenges (Khoo & Jørgensen, 2021).

The main problem, therefore, concerns the fragmentation of these dimensions. Educational quality, institutional resilience, and global citizenship are frequently investigated as separate outcomes, while leadership is often conceptualized primarily from a generic managerial or organizational perspective. Such fragmentation is problematic for Islamic educational institutions because the distinctive contribution of Islamic leadership lies precisely in its capacity to integrate organizational effectiveness with moral purpose. Recent studies have demonstrated that Islamic values can be incorporated into transformational leadership and institutional quality improvement. For example, Irawan et al. (2022) demonstrate the relevance of Islamic universal values in leadership practice within Islamic higher education, while recent conceptual work argues that *amanah*, *shura*, *'adl*, and *ihsan* can function as foundational principles for quality-oriented leadership rather than merely supplementary religious attributes. Similarly, recent research on Islamic transformational leadership suggests that integrating Islamic values with transformational leadership can strengthen institutional performance, teacher motivation, innovation, and organizational development (Mundiri et al., 2025; Rustandi & Syafei, 2025). Yet, much of this literature remains conceptual, qualitative, or focused on a single institutional outcome.

Transformative Islamic leadership offers a potential solution to this fragmentation because it combines the change-oriented mechanisms of transformational leadership with the ethical and spiritual foundations of Islamic leadership. Transformative leadership in

this study refers to leadership that articulates an inspiring vision, empowers organizational members, encourages innovation, develops collective commitment, and restructures institutional practices while remaining grounded in Islamic ethical values. The Islamic dimension provides normative direction, whereas the transformative dimension provides mechanisms for organizational change. This synthesis is important because leadership without ethical grounding may produce organizational efficiency without sufficient moral orientation, while religiously grounded leadership without transformative capacity may preserve values without adequately responding to contemporary institutional challenges. Recent scholarship has similarly proposed integrating Islamic values with twenty-first-century competencies to enhance the ethical grounding, relevance, innovation capacity, and adaptability of Islamic educational institutions (Prasetyowati et al., 2025).

The urgency of this research is strengthened by the increasing expectation that educational institutions become sustainable, resilient, and globally oriented organizations. Educational quality must now encompass the capacity to generate meaningful learning, institutional innovation, ethical governance, and socially relevant outcomes. At the same time, resilience requires institutions to anticipate disruption and continuously adapt rather than merely survive crises. Global citizenship requires educational institutions to cultivate individuals who are capable of understanding global interdependence and acting responsibly across cultural and social boundaries. Research on ESD and GCED shows that institutional characteristics and organizational contexts remain insufficiently explored compared with curriculum and learner-level factors (Chiba et al., 2021). This suggests that the leadership dimension deserves greater empirical attention, particularly in institutions where educational quality, moral formation, and global orientation are simultaneously pursued.

The research gap consequently lies in the limited empirical integration of educational quality, institutional resilience, and global citizenship within a single leadership model, particularly in the context of Islamic educational institutions. Existing studies have established relationships between transformational leadership and educational quality, between leadership and organizational outcomes, and between Islamic values and educational leadership; however, these strands of research have rarely been tested simultaneously through a quantitative model that examines whether transformative Islamic leadership produces partial and collective effects across these three outcomes. Moreover, existing research on Islamic educational leadership frequently emphasizes conceptual reconstruction, leadership character, or institutional performance, while the broader consequences for institutional resilience and global citizenship remain comparatively underdeveloped (Irawan et al., 2022; Mundiri et al., 2025; Prasetyowati et al., 2025). This gap is theoretically important because educational institutions require a leadership paradigm that connects internal institutional performance with external social responsibility.

The novelty of this study lies in proposing and empirically testing a multidimensional consequence model of transformative Islamic leadership that simultaneously links Islamic value-based leadership → educational quality → institutional resilience → global citizenship. Rather than treating Islamic leadership merely as an ethical variation of

transformational leadership, this study conceptualizes it as an integrative leadership approach in which amanah, justice, excellence, consultation, ethical example, visionary orientation, participation, and change capacity interact to influence both institutional and educational outcomes. The model therefore expands the discussion from whether Islamic leadership improves institutional performance to how value-based transformative leadership can simultaneously strengthen the quality of educational processes, the adaptive capacity of institutions, and the formation of globally responsible citizens. Such an approach responds to the growing call for whole-institution strategies in which sustainability, institutional development, curriculum, and stakeholder participation are integrated rather than treated as isolated initiatives (Chiba et al., 2021; UNESCO, 2023).

Accordingly, this study aims to examine the partial effects of transformative Islamic leadership on educational quality, institutional resilience, and global citizenship, as well as its simultaneous effect on these three dependent variables among educators and educational staff in Islamic educational institutions. By using a quantitative non-experimental survey design and multivariate regression analysis, the study seeks to provide empirical evidence concerning whether transformative Islamic leadership constitutes a meaningful predictor of educational and institutional transformation. The expected theoretical implication is the strengthening of the conceptual relationship between Islamic leadership, transformational leadership, organizational resilience, educational quality, and global citizenship. Practically, the findings are expected to inform leadership development programs, institutional governance, teacher and staff development, quality assurance, resilience strategies, and global citizenship-oriented educational practices. More broadly, the study is expected to demonstrate that Islamic educational leadership can move beyond administrative maintenance toward a transformative paradigm in which faith-based values become organizational capabilities, organizational capabilities become educational quality and resilience, and these outcomes ultimately contribute to the formation of globally responsible citizens and more sustainable educational institutions.

## **METHODS**

This study employed a quantitative approach with a non-experimental survey design to empirically examine the partial and simultaneous effects of transformative Islamic leadership on educational quality, institutional resilience, and global citizenship. A quantitative survey design was considered appropriate because the study sought to measure predefined constructs and statistically test the relationships among them without manipulating the research setting or assigning participants to experimental conditions. Survey research enables researchers to collect standardized responses from relatively large groups and subsequently examine patterns of association and predictive relationships among variables (Creswell & Creswell, 2018). The design was also consistent with the study's objective of testing whether transformative Islamic leadership functions as a significant predictor of multiple educational and institutional outcomes. In Islamic educational contexts, leadership may involve both organizational transformation and the internalization of religious values, including amanah (trustworthiness), justice, consultation

(shura), responsibility, and exemplary conduct (Mahfudh, 2022; Mu'alimin & Anwar, 2022).

The research population consisted of educators and educational staff working in Islamic educational institutions. These participants were selected because they interact directly with institutional leadership and are therefore in a position to assess leadership practices, educational processes, organizational conditions, and institutional responses to change. The sample was determined using proportional sampling, with the proportion of respondents adjusted according to the distribution and characteristics of the population across the participating institutions. This approach was intended to maintain an appropriate representation of different institutional or occupational groups and to reduce potential sampling imbalance. The inclusion of educators and educational staff also reflects the understanding that institutional leadership is not experienced exclusively at the managerial level but is mediated through everyday interactions, organizational culture, participation, and professional practices. Previous research indicates that transformational leadership can influence school-level outcomes through mechanisms involving staff engagement, organizational culture, collaboration, and institutional improvement (Tan et al., 2022). Accordingly, educators and educational staff constituted an appropriate respondent group for evaluating the practical manifestation of transformative Islamic leadership.

Data were collected through observation and a structured questionnaire, with the questionnaire serving as the principal instrument for quantitative measurement. Observation was conducted to obtain contextual information concerning leadership practices, institutional management, educational activities, participation, and organizational responses to internal and external changes. The questionnaire was developed based on the conceptual dimensions of the four principal constructs examined in the study. Transformative Islamic leadership was operationalized through indicators reflecting visionary orientation, inspirational motivation, participatory decision-making, ethical leadership, empowerment, innovation, accountability, and change orientation, while simultaneously incorporating Islamic values such as amanah, justice, shura, and exemplary conduct. This conceptualization is consistent with recent scholarship arguing that transformational leadership in Islamic educational institutions can be reconstructed through the integration of transformational leadership mechanisms and Islamic ethical principles (Mundiri et al., 2025).

Educational quality was operationalized through indicators associated with the effectiveness of educational processes, educator and staff performance, achievement of institutional objectives, continuous improvement, learning effectiveness, and the institution's capacity to provide meaningful educational services. This operationalization recognizes that educational quality extends beyond academic achievement and includes the capacity of educational institutions to continuously improve their processes and outcomes. Institutional resilience was measured through indicators reflecting the institution's capacity to anticipate challenges, respond effectively to disruption, maintain essential functions, adapt to changing circumstances, and pursue institutional improvement after periods of uncertainty. This conceptualization follows Duchek's (2020)

capability-based framework, which conceptualizes organizational resilience through three interconnected capacities: anticipation, coping, and adaptation. Finally, global citizenship was operationalized through indicators related to awareness of global interdependence, respect for cultural and social diversity, social responsibility, ethical awareness, participation, and willingness to contribute to the resolution of global challenges. This formulation is consistent with the literature on global citizenship and education for sustainable development, which emphasizes the integration of knowledge, attitudes, values, and action-oriented competencies (Chiba et al., 2021).

The questionnaire employed a Likert-type scale to measure respondents' perceptions of each indicator. Before the questionnaire was administered to the research sample, the instrument underwent validity and reliability assessment. Validity testing was conducted to determine whether each item adequately represented the theoretical construct it was intended to measure, whereas reliability testing was conducted to assess the internal consistency of the measurement items. These procedures were necessary because transformative Islamic leadership, educational quality, institutional resilience, and global citizenship are multidimensional constructs that cannot be adequately represented by a single indicator. The development and assessment of the instrument were therefore guided by the relevant theoretical literature and previous empirical studies concerning transformational leadership, Islamic educational leadership, organizational resilience, and global citizenship education (Duchek, 2020; Chiba et al., 2021; Mundiri et al., 2025). In addition, questionnaire items were reviewed to ensure that their wording was comprehensible and contextually appropriate for educators and educational staff in Islamic educational institutions.

The data analysis consisted of descriptive and inferential statistical analysis. Descriptive statistics were initially used to summarize respondent characteristics and the distribution of responses for each research variable. Subsequently, inferential analysis was conducted to test the proposed relationships between transformative Islamic leadership and the three dependent variables. Multivariate regression analysis was employed because the study examined one principal independent variable and three related dependent variables. The analysis was conducted in two stages. First, partial effects were examined to determine whether transformative Islamic leadership significantly predicted each dependent variable independently, namely educational quality, institutional resilience, and global citizenship. Second, a multivariate test was conducted to determine whether transformative Islamic leadership simultaneously influenced the three dependent variables as a collective outcome set. Wilks' Lambda was used as the multivariate criterion to evaluate the overall statistical significance of the relationship between the independent variable and the combined dependent variables.

The statistical significance level was established at  $\alpha = 0.05$ , meaning that a relationship was considered statistically significant when the probability value was below .05. In addition to statistical significance, the magnitude of the relationship was interpreted using the coefficient of determination/effect size, allowing the analysis to distinguish between whether an effect existed and how substantial the contribution of transformative Islamic leadership was to each outcome. The analytical model consisted of transformative

Islamic leadership as the independent variable (X), educational quality as the first dependent variable ( $Y_1$ ), institutional resilience as the second dependent variable ( $Y_2$ ), and global citizenship as the third dependent variable ( $Y_3$ ). The analytical structure can therefore be expressed as  $X \rightarrow Y_1$ ,  $X \rightarrow Y_2$ ,  $X \rightarrow Y_3$ , followed by the multivariate relationship  $X \rightarrow (Y_1, Y_2, Y_3)$ .

The interpretation of the statistical findings was subsequently connected to the theoretical framework of transformative and Islamic leadership. Transformative Islamic leadership was understood not merely as a leadership style concerned with organizational change but as an integrated leadership paradigm in which ethical and religious values provide normative direction for transformation. Recent studies of Islamic schools demonstrate that transformational leadership practices may involve strengthening institutional vision and mission, treating change as an opportunity for development, modifying educational programs, and establishing collaborative relationships beyond the institution (Mu'alimin & Anwar, 2022). Similarly, recent work on Islamic transformational leadership emphasizes the integration of amanah, justice, consultation, and other Islamic principles into organizational change processes (Mundiri et al., 2025). Therefore, the statistical relationships identified in this study were interpreted not only in terms of managerial effectiveness but also in relation to the capacity of Islamic values to function as organizational resources for improving educational quality, strengthening institutional resilience, and cultivating global citizenship.

Overall, the methodological design was intended to provide empirical evidence concerning whether transformative Islamic leadership can operate as an integrated predictor of educational and institutional transformation. By examining educational quality, institutional resilience, and global citizenship simultaneously, the study extends the analysis of Islamic educational leadership beyond conventional measures of institutional performance. The approach also recognizes that resilient educational institutions require the ability to anticipate, cope with, and adapt to disruption (Duchek, 2020), while contemporary education increasingly requires the development of learners who possess the knowledge, values, and competencies necessary for sustainable development and responsible global participation (Chiba et al., 2021). The resulting evidence is therefore expected to clarify the extent to which value-based transformative leadership can contribute to the development of Islamic educational institutions that are academically effective, organizationally resilient, ethically grounded, and globally oriented.

## RESULTS

### Partial Effects of Transformative Islamic Leadership

The first stage of the analysis examined the partial effects of transformative Islamic leadership on educational quality, institutional resilience, and global citizenship. The analysis used the Tests of Between-Subjects Effects to determine whether transformative Islamic leadership (X) significantly contributed to variation in each dependent variable. The results are presented in Table 1.

**Table 1.** Partial Effects of Transformative Islamic Leadership on Educational Quality, Institutional Resilience, and Global Citizenship

| Dependent Variable       | Type III Sum of Squares | df | Mean Square | F       | Sig.  |
|--------------------------|-------------------------|----|-------------|---------|-------|
| Educational Quality      | 6,918.079               | 1  | 6,918.079   | 122.963 | 0.000 |
| Institutional Resilience | 7,276.949               | 1  | 7,276.949   | 148.254 | 0.000 |
| Global Citizenship       | 110.823                 | 1  | 110.823     | 1.335   | 0.249 |

The results indicate that transformative Islamic leadership had a statistically significant partial effect on educational quality. The effect produced an  $F$  value of 122.963 with a significance value of  $p < .001$ , which is below the 0.05 threshold. This finding indicates that differences in transformative Islamic leadership were significantly associated with differences in educational quality. Thus, the hypothesis proposing a partial effect of transformative Islamic leadership on educational quality was supported.

Transformative Islamic leadership also demonstrated a statistically significant partial effect on institutional resilience, with an  $F$  value of 148.254 and a significance value of  $p < .001$ . The magnitude of the  $F$  statistic was higher than that obtained for educational quality, indicating a comparatively stronger statistical relationship in the present model. The finding suggests that leadership characterized by visionary orientation, participation, ethical responsibility, empowerment, and change orientation is significantly associated with the capacity of Islamic educational institutions to respond to challenges, adapt to changing circumstances, and maintain organizational continuity. Accordingly, the hypothesis concerning the partial effect of transformative Islamic leadership on institutional resilience was supported.

In contrast, the partial effect of transformative Islamic leadership on global citizenship was not statistically significant. The analysis produced an  $F$  value of 1.335 and a significance value of 0.249, which exceeds the 0.05 significance criterion. Therefore, the hypothesis that transformative Islamic leadership has a direct partial effect on global citizenship was not supported. This result indicates that although transformative Islamic leadership may provide an institutional and ethical environment conducive to global citizenship, its direct statistical contribution to global citizenship was insufficient to establish a significant relationship in the present model. The development of global citizenship may consequently depend on additional factors, including curriculum, pedagogical practices, intercultural learning, community engagement, and students' direct exposure to global issues.

### Simultaneous Effect of Transformative Islamic Leadership

The second stage of the analysis examined whether transformative Islamic leadership simultaneously affected the three dependent variables—educational quality, institutional resilience, and global citizenship. Because the dependent variables were analyzed jointly, a multivariate test was employed. The results of the multivariate analysis are presented in Table 2.

**Table 2.** Multivariate Test of the Simultaneous Effect of Transformative Islamic Leadership

| Effect | Multivariate Statistic | Value | F      | Hypothesis df | Error df | Sig.  |
|--------|------------------------|-------|--------|---------------|----------|-------|
| X      | Pillai's Trace         | 0.330 | 54.125 | 3             | 329      | 0.000 |
| X      | Wilks' Lambda          | 0.670 | 54.125 | 3             | 329      | 0.000 |
| X      | Hotelling's Trace      | 0.494 | 54.125 | 3             | 329      | 0.000 |
| X      | Roy's Largest Root     | 0.494 | 54.125 | 3             | 329      | 0.000 |

The multivariate results demonstrate that transformative Islamic leadership had a statistically significant simultaneous effect on educational quality, institutional resilience, and global citizenship. All four multivariate criteria produced a significance value of  $p < .001$ . In particular, Wilks' Lambda was 0.670 with  $F(3, 329) = 54.125$ ,  $p < .001$ . Because the significance value is substantially below 0.05, the null hypothesis of no simultaneous multivariate effect is rejected. This finding confirms that transformative Islamic leadership, when considered as an integrated leadership construct, is significantly related to the combined variation in the three educational outcomes.

The Pillai's Trace value of 0.330 further indicates a meaningful multivariate association between transformative Islamic leadership and the combined dependent-variable space. Importantly, the simultaneous significance should not be interpreted as evidence that each individual dependent variable is necessarily significant. Rather, it demonstrates that transformative Islamic leadership significantly differentiates the overall multivariate profile consisting of educational quality, institutional resilience, and global citizenship. This distinction is particularly important because the partial analysis showed that the relationship with global citizenship was not statistically significant when examined independently.

### Descriptive Comparison of the Dependent Variables

To identify the relative level of each outcome variable, descriptive statistics were examined using the mean and standard deviation. The results are presented in Table 3.

**Table 3.** Descriptive Statistics of Educational Quality, Institutional Resilience, and Global Citizenship

| Variable                 | Mean  | Standard Deviation | N   |
|--------------------------|-------|--------------------|-----|
| Educational Quality      | 78.66 | 8.771              | 333 |
| Institutional Resilience | 70.06 | 8.418              | 333 |
| Global Citizenship       | 77.77 | 9.117              | 333 |

The descriptive results show that educational quality had the highest mean score ( $M = 78.66$ ,  $SD = 8.771$ ), followed by global citizenship ( $M = 77.77$ ,  $SD = 9.117$ ), while institutional resilience recorded the lowest mean score ( $M = 70.06$ ,  $SD = 8.418$ ). These results indicate that, among the three measured outcomes, educational quality had the highest observed average level in the participating Islamic educational institutions. However, the mean scores should be interpreted as descriptive indicators of the observed levels of the variables rather than as measures of causal influence.

When the inferential and descriptive findings are considered together, an important pattern emerges. Transformative Islamic leadership demonstrated significant partial effects on educational quality and institutional resilience, whereas its direct partial effect on global citizenship was not significant. At the same time, the overall multivariate effect was statistically significant. This pattern suggests that transformative Islamic leadership may have its strongest and most immediate institutional consequences through internal educational and organizational mechanisms, while the development of global citizenship may require additional mediating or complementary mechanisms beyond leadership alone. Thus, the findings provide empirical support for understanding transformative Islamic leadership primarily as an institutional transformation mechanism, with its potential contribution to global citizenship emerging more indirectly through educational quality, institutional culture, curriculum, and broader educational experiences.

## **DISCUSSION**

### **Partial Effects of Transformative Islamic Leadership on Educational Quality, Institutional Resilience, and Global Citizenship**

The partial analysis demonstrates that transformative Islamic leadership does not produce uniform effects across all educational outcomes. The findings indicate significant effects on educational quality and institutional resilience, whereas its direct effect on global citizenship is not statistically significant. This differentiated pattern is theoretically important because it suggests that transformative Islamic leadership may exert its strongest influence first through the internal organizational and educational dimensions of an institution, while broader citizenship outcomes may require additional mechanisms beyond leadership itself. The findings therefore support an understanding of Islamic educational leadership as an organizational transformation mechanism rather than as a single-factor explanation for all educational outcomes.

The significant effect of transformative Islamic leadership on educational quality is indicated by  $F = 122.963$  and  $p < .001$ . This finding demonstrates that stronger transformative Islamic leadership is associated with higher levels of educational quality. The result is consistent with the broader literature demonstrating that leadership is an important determinant of educational outcomes because leaders influence organizational vision, teacher motivation, collaboration, innovation, professional development, and institutional culture (Tan et al., 2022). A second-order meta-analysis of school leadership research similarly confirms a positive association between leadership and multiple school outcomes, although the strength of the relationship varies according to the outcome and institutional context.

The present finding can be explained by the distinctive combination of transformational mechanisms and Islamic ethical values embedded in the leadership construct. Transformative Islamic leadership does not merely emphasize institutional targets but connects organizational improvement with moral responsibility, accountability, trustworthiness, justice, consultation, and excellence. In this configuration, the leader functions not only as an administrator but also as a moral reference point who establishes a shared institutional vision and encourages educators and staff to participate in

continuous improvement. Recent research on Islamic transformational leadership similarly argues that Islamic values such as amanah, justice, sincerity, and shura can reinforce the dimensions of transformational leadership and contribute to managerial, academic, and spiritual institutional performance (Mundiri et al., 2025).

The finding also corresponds with evidence concerning sustainable leadership and educational quality. Peng et al. (2024), through a systematic review of 60 studies, found that sustainable leadership is associated with improving educational quality and institutional adaptability. Their analysis emphasizes long-term development, stakeholder participation, innovation, and institutional capacity as important dimensions of leadership for educational improvement. Similarly, Al-khamaiseh et al. (2025) identify effectiveness, systems thinking, collaborative responsibility, and future orientation as central themes in sustainable educational leadership. These findings provide a theoretical explanation for why transformative Islamic leadership can influence educational quality: leadership creates the organizational conditions through which quality improvement becomes a collective rather than merely individual responsibility.

From an Islamic educational perspective, this relationship is particularly meaningful because educational quality is not adequately defined by measurable academic outcomes alone. Islamic educational institutions are expected to integrate intellectual, moral, spiritual, and social dimensions of development. Thus, leadership based on amanah can encourage accountability for educational responsibilities, while ihsan can provide an ethical orientation toward excellence. Shura can facilitate participatory decision-making, and justice can strengthen fairness in the distribution of institutional responsibilities and opportunities. Such values may generate an organizational culture in which quality assurance is understood not simply as compliance with external standards but as a moral commitment to continuous institutional improvement. This interpretation is consistent with recent conceptual work proposing that Islamic values can be integrated with twenty-first-century competencies to strengthen the ethical grounding and innovation capacity of contemporary Islamic education (Prasetyowati et al., 2025).

The second significant partial finding concerns the relationship between transformative Islamic leadership and institutional resilience. The analysis produced  $F = 148.254$  and  $p < .001$ , representing the strongest  $F$  statistic among the three partial tests. Although the  $F$  statistic should not be interpreted directly as an effect-size percentage, its magnitude indicates a strong statistical signal within the present model. More importantly, the result confirms that transformative Islamic leadership is significantly associated with the institution's capacity to respond to change and disruption.

This finding can be interpreted through the capability-based conceptualization of organizational resilience proposed by Ducheck (2020), which identifies resilience as a dynamic organizational capability involving anticipation, coping, and adaptation. Resilient organizations do not merely return to their previous condition after disruption; they learn from challenges and develop new capabilities that allow them to remain viable under changing circumstances. Within Islamic educational institutions, transformative leaders can strengthen these capabilities by developing a shared vision, encouraging collective

problem-solving, supporting innovation, maintaining stakeholder trust, and framing organizational challenges as opportunities for institutional learning.

The relationship between leadership and resilience is also supported by the emerging literature on sustainable educational leadership. Al-khamaiseh et al. (2025) argue that sustainable leadership incorporates systems thinking, collaborative responsibility, future orientation, and institutional effectiveness, all of which are relevant to organizational resilience. Peng et al. (2024) likewise emphasize adaptability and long-term institutional capacity as important outcomes of sustainable leadership in education. Thus, the present findings extend these arguments by suggesting that the resilience-building function of leadership can also be articulated through an Islamic ethical framework.

The Islamic dimension may provide an additional source of resilience because institutional adaptation is embedded within a normative framework of responsibility and trust. The principle of *amanah*, for example, positions institutional resources, human relationships, and educational responsibilities as trusts that must be maintained responsibly. Such an orientation may strengthen leaders' commitment to institutional continuity and encourage educators and staff to perceive organizational challenges as collective responsibilities rather than solely managerial problems. Likewise, *shura* can facilitate distributed problem-solving by encouraging consultation and participation, while *tawakkul* and ethical responsibility may provide psychological and spiritual resources for navigating uncertainty. Importantly, however, Islamic values should not be assumed to automatically produce organizational resilience. Their influence depends on whether they are translated into concrete governance practices, communication systems, professional development, and institutional learning mechanisms. This distinction is important because resilience is ultimately an organizational capability, not simply an attitudinal or religious characteristic (Duchek, 2020).

The most distinctive partial finding concerns global citizenship, for which transformative Islamic leadership did not demonstrate a statistically significant direct effect. The analysis produced  $F = 1.335$  and  $p = .249$ . Therefore, the null hypothesis cannot be rejected at the 5% significance level. This result is important because it prevents an overly deterministic interpretation of transformative Islamic leadership. Although leadership may create a favorable institutional environment for global citizenship, the evidence does not demonstrate that leadership alone directly determines global citizenship in the present sample.

One possible explanation is that global citizenship is a more distal educational outcome than educational quality or institutional resilience. Educational quality and institutional resilience are closely connected to institutional leadership because they concern organizational processes, governance, resources, professional practices, and responses to change. Global citizenship, by contrast, involves cognitive, affective, ethical, intercultural, and behavioral dimensions that develop through multiple educational experiences. Chiba et al. (2021), in a systematic review, found that effective education for sustainable development and global citizenship education is associated with changes in knowledge, attitudes, beliefs, and behavior, particularly when educational programs combine theory and practice. This suggests that leadership may influence global citizenship

indirectly by shaping curriculum, pedagogy, institutional culture, community engagement, and opportunities for students to participate in global and social issues.

The non-significant direct effect also reinforces the distinction between leadership as an enabling condition and education as the immediate mechanism of citizenship formation. A school or university leader may articulate a vision of global responsibility, but such a vision will not necessarily translate into global citizenship unless teachers integrate global issues into instruction, learners engage in intercultural experiences, curricula encourage critical reflection, and institutions provide opportunities for civic participation. Research on global citizenship and sustainable development education emphasizes precisely this interaction between institutional conditions, curriculum, pedagogy, and learner experiences (Chiba et al., 2021; Khoo & Jørgensen, 2021). Consequently, the present finding should not be interpreted as evidence that transformative Islamic leadership is irrelevant to global citizenship. Rather, it suggests that the relationship may be indirect, mediated, or conditional.

This interpretation is particularly relevant to Islamic education because global citizenship does not necessarily require abandoning religious identity. On the contrary, Islamic values such as justice, human dignity, responsibility, compassion, respect for diversity, and social solidarity can provide ethical resources for constructing a form of global citizenship that is religiously grounded while remaining open to global interdependence. However, such values need to be operationalized through educational experiences rather than remaining at the level of leadership discourse. The absence of a significant direct effect in this study therefore provides an important empirical indication that future research should examine mediating variables such as educational quality, curriculum integration, teacher competence, intercultural learning, institutional culture, and student participation.

Taken together, the partial findings indicate a hierarchical or differentiated pattern of leadership influence. Transformative Islamic leadership has a clear and immediate statistical relationship with internal institutional outcomes educational quality and resilience but its direct relationship with global citizenship is considerably weaker. This pattern is compatible with contemporary sustainability-oriented leadership research, which emphasizes that leadership operates through systems, organizational culture, collaboration, and educational processes rather than through isolated direct effects (Sanchez-Carrillo et al., 2021; Al-khamaiseh et al., 2025). The implication is that strengthening transformative Islamic leadership may be particularly effective as a first-order institutional intervention, while global citizenship requires a broader educational ecosystem.

### **Simultaneous Effect of Transformative Islamic Leadership on Educational Quality, Institutional Resilience, and Global Citizenship**

The multivariate analysis provides a broader perspective on the relationship between transformative Islamic leadership and the three dependent variables. The results show that transformative Islamic leadership has a significant simultaneous multivariate effect on educational quality, institutional resilience, and global citizenship. The Wilks' Lambda

value was 0.670, with  $F(3, 329) = 54.125$  and  $p < .001$ . Pillai's Trace was 0.330, while Hotelling's Trace and Roy's Largest Root were both 0.494, with all multivariate tests yielding  $p < .001$ . The consistency across the four multivariate criteria strengthens confidence in the conclusion that transformative Islamic leadership is significantly associated with the combined configuration of the three outcomes.

The simultaneous significance is theoretically important because it demonstrates that transformative Islamic leadership should not be understood only through isolated effects on individual institutional indicators. Educational quality, institutional resilience, and global citizenship represent interconnected dimensions of educational transformation. Quality education provides the institutional and pedagogical foundation for meaningful learning; resilience provides the organizational capacity to sustain educational functions under changing conditions; and global citizenship represents an outward-oriented educational outcome through which learners are prepared to engage responsibly with broader social and global challenges. Leadership operates across these dimensions by shaping vision, organizational culture, participation, resource allocation, innovation, and institutional priorities.

The multivariate result is consistent with the emerging literature on sustainable and transformative educational leadership, which increasingly conceptualizes leadership as a systems-level capacity. Al-khamaiseh et al. (2025) identify effectiveness, sustainability systems thinking, collaborative responsibility, and future orientation as interconnected dimensions of sustainable leadership. Similarly, Sanchez-Carrillo et al. (2021) argue that sustainability-oriented higher education leadership requires innovation in management, planning, openness, training, and networking, while also noting the need to strengthen connections between institutional sustainability and society. These arguments help explain why a single leadership construct can demonstrate a significant multivariate relationship across several educational outcomes.

The simultaneous finding also provides support for conceptualizing transformative Islamic leadership as an integrated institutional paradigm rather than a narrowly religious leadership style. Its transformative dimension concerns the ability to mobilize people and organizations toward change, whereas its Islamic dimension supplies an ethical and normative framework for determining the direction and legitimacy of that change. Recent research specifically examining the reconstruction of transformational leadership through Islamic values argues that amanah, justice, sincerity, and shura can enrich transformational leadership by connecting organizational performance with ethical and spiritual responsibility (Mundiri et al., 2025). This integrated perspective is particularly relevant in educational institutions, where leadership decisions influence not only organizational performance but also the formation of human values and social responsibility.

The multivariate result further suggests that institutional transformation should be understood as a multidimensional process. Improving educational quality without strengthening institutional resilience may produce improvements that are difficult to sustain. Similarly, developing resilient institutions without cultivating global citizenship may produce organizations that are internally adaptive but insufficiently responsive to broader social and global responsibilities. Transformative Islamic leadership potentially

connects these dimensions by promoting a shared institutional vision that links internal quality improvement with long-term sustainability and ethical social engagement. This systems-oriented interpretation is consistent with recent evidence that leadership, pedagogy, and curriculum must operate together to institutionalize education for sustainable development (Sedkaoui, 2026).

The significant multivariate effect also provides a basis for interpreting the non-significant partial effect on global citizenship more carefully. There is no contradiction between the two findings. The partial test asks whether transformative Islamic leadership independently predicts global citizenship when that outcome is considered separately, whereas the multivariate test asks whether leadership is significantly associated with the combined pattern of all three outcomes. Thus, the present evidence suggests that transformative Islamic leadership has a meaningful overall educational-institutional influence even though its direct contribution to global citizenship is not statistically significant in isolation. This distinction is substantively valuable because it points toward a possible indirect pathway in which leadership first strengthens educational quality and institutional capacity, which may subsequently provide the conditions through which global citizenship can develop.

The finding is particularly compatible with research showing that global citizenship and sustainable development education depend on institutional and pedagogical contexts rather than on isolated leadership variables. Chiba et al. (2021) found that effective ESD and global citizenship programs frequently combine theory and practice and that positive outcomes include changes in knowledge, attitudes, beliefs, and behaviors. This implies that leadership may have its most important contribution at the institutional level by establishing the conditions in which such educational practices can occur. Leaders can facilitate curriculum reform, teacher development, interdisciplinary collaboration, partnerships, student participation, and community engagement, but these mechanisms must be activated through institutional practice.

The simultaneous finding also reinforces the importance of distributed and participatory leadership. Contemporary sustainability leadership literature increasingly emphasizes collaborative responsibility rather than concentrating institutional transformation exclusively in the hands of formal leaders (Al-khamaiseh et al., 2025). In Islamic educational institutions, this principle resonates strongly with *shura*, which positions consultation and collective deliberation as important dimensions of responsible decision-making. Consequently, transformative Islamic leadership can be understood as a process of mobilizing collective institutional agency rather than merely exercising authority from the top. Such an approach may explain why its strongest relationships appear in outcomes that depend heavily on organizational participation, such as educational quality and institutional resilience.

The descriptive findings provide an additional contextual perspective. Educational quality recorded the highest mean score ( $M = 78.66$ ), followed by global citizenship ( $M = 77.77$ ), while institutional resilience had the lowest mean ( $M = 70.06$ ). These means should not be interpreted as effect sizes or as evidence that educational quality is influenced more strongly by leadership than the other variables. Rather, they indicate the relative observed

levels of the three outcomes within the sample. The comparatively lower mean for institutional resilience may indicate that although transformative leadership is strongly associated with resilience, resilience remains a more challenging institutional capacity to develop and sustain. Institutions may achieve relatively strong educational processes while still facing difficulties in anticipating disruption, maintaining continuity, and adapting systematically to environmental changes.

This interpretation is consistent with Duchek's (2020) argument that resilience involves multiple organizational capabilities, including anticipation, coping, and adaptation. Resilience therefore requires more than effective leadership at a single point in time; it requires institutional routines, learning mechanisms, resource flexibility, communication systems, and the capacity to transform experience into future capability. The significant leadership-resilience relationship in the present study nevertheless suggests that leadership may constitute an important enabling condition for building these capabilities. The challenge for Islamic educational institutions is therefore to translate leadership vision into institutional systems that remain effective beyond the tenure or personal influence of individual leaders.

From a practical perspective, the combined findings suggest that Islamic educational institutions should strengthen transformative leadership through four mutually reinforcing strategies: leadership capacity development, systematic internalization of Islamic values, governance innovation, and global orientation. Leadership capacity development should focus not only on managerial competence but also on visionary thinking, collaborative decision-making, innovation, ethical judgment, and change management. Internalization of Islamic values should move beyond ceremonial or symbolic expressions toward observable organizational practices based on *amanah*, justice, *shura*, and *ihsan*. Governance innovation should establish mechanisms for institutional learning, stakeholder participation, crisis preparedness, and continuous improvement. Finally, global orientation should be embedded in curricula, pedagogical practice, partnerships, and community engagement rather than assigned solely to the leadership domain.

Overall, the findings support a conceptual interpretation in which transformative Islamic leadership functions as an institutional catalyst. Its strongest direct contributions appear in educational quality and institutional resilience, while its contribution to global citizenship is more appropriately understood as part of a broader institutional pathway. The multivariate significance confirms that these outcomes should be considered interconnected components of educational transformation. The central implication is therefore not that leadership alone produces sustainable educational institutions or globally responsible citizens, but that transformative Islamic leadership can establish the ethical, organizational, and strategic conditions under which such outcomes become more achievable. In this sense, Islamic leadership can move beyond administrative effectiveness toward a transformative paradigm that connects Islamic values → organizational transformation → educational quality → institutional resilience → socially and globally responsible citizenship.

## CONCLUSION

The study concludes that, partially, transformative Islamic leadership has a significant effect on educational quality and institutional resilience, but does not have a significant direct effect on global citizenship. These findings indicate that transformative Islamic leadership is more immediately influential in strengthening internal educational processes and institutional adaptive capacity, while the development of global citizenship requires broader support through curriculum, pedagogy, intercultural learning, and participatory experiences.

Simultaneously, transformative Islamic leadership has a significant multivariate effect on educational quality, institutional resilience, and global citizenship (Wilks' Lambda = .670;  $F(3, 329) = 54.125$ ;  $p < .001$ ), demonstrating that these outcomes should be understood as interconnected dimensions of institutional transformation. Thus, strengthening transformative Islamic leadership through Islamic ethical values, participatory governance, innovation, and global orientation is important for developing Islamic educational institutions that are high-quality, resilient, adaptive, and responsive to global challenges.

## ACKNOWLEDGMENT

The authors would like to express their gratitude to all educators and educational staff who participated in this study and contributed valuable information to the research process. The authors also thank the institutions involved for their support and cooperation. This study received no specific financial support from any public, commercial, or nonprofit funding agency.

**Conflict of Interest** The authors declare that they have no conflict of interest.

## REFERENCES

- Al-khamaiseh, R. A. M., Bailey, R. P., & Jarvis, A. (2025). Definitions of sustainable leadership in education: A systematic review and analysis. *Management in Education*, 20(3). <https://doi.org/10.1177/19427751241283029>
- Chiba, M., Sustarsic, M., Perriton, S., & Edwards, D. B. (2021). Investigating effective teaching and learning for sustainable development and global citizenship: Implications from a systematic review of the literature. *International Journal of Educational Development*, 81, 102337. <https://doi.org/10.1016/j.ijedudev.2020.102337>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Duchek, S. (2020). Organizational resilience: A capability-based conceptualization. *Business Research*, 13, 215–246. <https://doi.org/10.1007/s40685-019-0085-7>
- Fatihah, H., Komalasari, K., Rahmat, R., Sundawa, D., Masyitoh, I. S., & Mahpudz, A. (2026). From barriers to outcomes: A systematic review of global citizenship education in higher education toward sustainable development goals (2015–2025). *Journal of Moral and Civic Education*. <https://doi.org/10.24036/88514121012026956>
- Harris, A., & Jones, M. (2020). COVID 19—School leadership in disruptive times. *School Leadership & Management*, 40(4), 243–247. <https://doi.org/10.1080/13632434.2020.1811479>
- Hoch, J. E., Bommer, W. H., Dulebohn, J. H., & Wu, D. (2018). Do ethical, authentic, and servant leadership explain variance above and beyond transformational leadership? A meta-analysis. *Journal of Management*, 44(2), 501–529. <https://doi.org/10.1177/0149206316665461>
- Hulpia, H., Devos, G., & Van Keer, H. (2019). The influence of distributed leadership on teachers' organizational commitment: A multilevel analysis. *Educational Administration Quarterly*, 55(2), 1–29.

- Imamah, E. S., Sa'diyah, M., & Ahmad, A. (2026). Integrating Islamic leadership values into total quality management: A conceptual framework for Islamic educational institutions. *Jurnal Cendekia Media Komunikasi Penelitian dan Pengembangan Pendidikan Islam*, 18(1). <https://doi.org/10.37850/cendekia.v18i01.1273>
- Irawan, A. R., Supriyatno, T., & Fatahillah, F. (2022). Implementation of Islamic universal values-based leadership power at state Islamic higher education. *Nazhruna: Jurnal Pendidikan Islam*, 5(3), 1025–1035. <https://doi.org/10.31538/nzh.v5i3.2531>
- Khoo, S.-M., & Jørgensen, N. J. (2021). Intersections and collaborative potentials between global citizenship education and education for sustainable development. *Globalisation, Societies and Education*, 19(4), 470–481. <https://doi.org/10.1080/14767724.2021.1889361>
- Kılınç, A. Ç., Bellibaş, M. Ş., & Gümüş, S. (2023). The impact of transformational school leadership on school staff and school culture in primary schools: A systematic review of international literature. *Social Sciences*, 13(6), 133. <https://doi.org/10.3390/socsci13060133>
- Koehrsen, J., & Ives, C. D. (2025). The multiple roles of religious actors in advancing a sustainable future. *Ambio*, 54, 1318–1333. <https://doi.org/10.1007/s13280-025-02166-0>
- Luvianingtias, S. N., Lestari, R., Hanif, N. F., Diana, N., Hadiati, E., Bhatti, M. S., & Olumilua, I. E. A. B. (2026). Transformational leadership and educational quality: Strengthening teacher motivation and commitment in Islamic education. *Tadrib: Jurnal Pendidikan Agama Islam*, 12(2). <https://doi.org/10.19109/tadrib.v12i2.32606>
- Mahfudh, M. (2022). Konstruksi kepemimpinan transformatif di lembaga pendidikan Islam. *Indonesian Journal of Humanities and Social Sciences*, 3(2). <https://doi.org/10.33367/ijhass.v3i2.3005>
- Marjuni, A. (2021). Karakteristik nilai dan moralitas kepemimpinan pendidikan Islam. *Al Asma: Journal of Islamic Education*, 3(1). <https://doi.org/10.24252/asma.v3i1.19046>
- Mu'alimin, M., & Anwar, M. (2022). Transformational leadership: The practice of principals in Islamic schools. *Ta'dib: Jurnal Pendidikan Islam*, 27(2), 85–95. <https://doi.org/10.19109/td.v27i2.14201>
- Mundiri, A., Sain, Z. H., & Khomairohtusshiyamah, U. (2025). Reconstructing transformational leadership through Islamic values: A model for improving institutional performance in Islamic education. *Mozaic: Islam Nusantara*. <https://doi.org/10.47776/mozaic.v11i2.1829>
- Pedraja-Rejas, L., Rodríguez-Ponce, E., Laroze, D., & Muñoz-Fritis, C. (2023). Mapping global citizenship: A bibliometric analysis of the field of education for sustainable development. *Frontiers in Education*, 8, 1139198. <https://doi.org/10.3389/educ.2023.1139198>
- Peng, Y., Alias, B. S., Wan, X., & Mansor, A. N. (2024). The impact of sustainable leadership on education quality: A systematic review. *Journal of Law and Sustainable Development*, 12(6). <https://doi.org/10.55908/sdgs.v12i6.3760>
- Prasetyowati, F., Saniya, U. M., Fauzia, S., & Susilawati, S. (2025). Transformative leadership for integrating Islamic values and 21st century skills: A conceptual framework for contemporary Islamic education. *Journal of Islamic Education Management Research*, 3(1). <https://doi.org/10.14421/jiemr.2025.31-03>
- Rustandi, F., & Syafei, I. (2025). Strategi kepemimpinan transformasional berbasis nilai Islam dalam mencapai keunggulan lembaga pendidikan Islam. *Teaching and Learning Journal of Mandalika*, 6(1), 142–154. <https://doi.org/10.36312/teacher.v6i1.4320>
- Sanchez-Carrillo, J. C., Cadarso, M. Á., & Tobarra, M. Á. (2021). Embracing higher education leadership in sustainability: A systematic review. *Journal of Cleaner Production*, 298, 126675. <https://doi.org/10.1016/j.jclepro.2021.126675>
- Sedkaoui, S. (2026). Leadership, curriculum and pedagogy for sustainability: A systematic review. *International Journal of Sustainability in Higher Education*, 27(7), 1532–1554. <https://doi.org/10.1108/IJSHE-08-2025-0838>
- Suryadi, S., Sawan, F., & Anugrahsari, S. (2023). Transformational leadership and behavioral innovation in education: A meta-analysis. *Jurnal Pendidikan Ekonomi dan Bisnis*, 11(1). <https://doi.org/10.21009/JPEB.012.1.3>
- Tan, C. Y., Gao, L., & Shi, M. (2022). Second-order meta-analysis synthesizing the evidence on associations between school leadership and different school outcomes. *Educational Management Administration & Leadership*, 50(3). <https://doi.org/10.1177/1741143220935456>
- UNESCO. (2020). Education for sustainable development: A roadmap. UNESCO. <https://doi.org/10.54675/YFRE1448>
- UNESCO. (2022). Global citizenship education: Advocacy, practice and awareness Handbook for teachers. UNESCO Office Bangkok and Regional Bureau for Education in Asia and the Pacific.

- UNESCO. (2023). Global education monitoring report 2023: Technology in education A tool on whose terms? UNESCO.
- United Nations. (2015). Transforming our world: The 2030 Agenda for Sustainable Development. United Nations.
- World Bank. (2018). World development report 2018: Learning to realize education's promise. World Bank. <https://doi.org/10.1596/978-1-4648-1096-1>
- Ydo, Y. (2023). Values, knowledge, and curriculum in global citizenship education. *Prospects*, 53, 169–171. <https://doi.org/10.1007/s11125-023-09657-6>
- Zabidi, F. N. M., Abd Rahman, N., & Halim, L. (2021). Integration of Islamic values for environmental conservation: An analysis of school textbooks. *Religions*, 12(7), 509. <https://doi.org/10.3390/rel12070509>