



# MALAYSIAN ONLINE JOURNAL OF EDUCATIONAL MANAGEMENT (MOJEM)

JANUARY 2026, VOLUME 14, ISSUE 1, 18-35  
E-ISSN NO: 2289 – 4489

## DEVELOPING SCHOOL RESOURCE LEADERSHIP INDICATORS FOR MALAYSIAN ISLAMIC SCHOOLS USING A MODIFIED FUZZY DELPHI APPROACH

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### ABSTRACT

The principal's strategic resource leadership plays a central role in sustaining effective teaching and learning in Malaysia's culturally embedded Islamic education system. The effectiveness of leadership depends on how financial, human, and physical resources are planned, allocated, and aligned with the school's religious and cultural mission. Although the Malaysia Education Blueprint 2013–2025 emphasises student-centred learning, strategic resource management, and lifelong learning, existing leadership models give limited attention to the distinctive religious, cultural, and spiritual realities of Islamic schooling. Most available frameworks remain administratively oriented and insufficiently responsive to the cultural expectations of faith-based institutions. This study, therefore, aims to develop a School Resource Leadership Framework grounded in Islamic educational values and suited to the Malaysian Islamic school context, while remaining aligned with national education goals. The new framework comprises three culturally contextualised domains: (1) leading human resources to maximise student learning, (2) leading resources systematically (ICT, data, and finance), and (3) leading funds and information to develop teacher competency. Using the Modified Fuzzy Delphi Method (MFDm), expert consensus was gathered through three rounds involving specialists in Islamic education, school leadership, and educational management. In Round 1, qualitative interviews with six experts generated 72 preliminary indicators. Round 2 validated and refined these indicators based on expert feedback. In Round 3, a panel of 23 experts evaluated all items using fuzzy computations, with threshold values ( $d \leq 0.2$ ) and a  $\geq 75\%$  agreement as acceptance criteria. The final model includes 72 empirically supported, contextually relevant indicators that address the gaps between conventional leadership theories and the needs of Islamic school settings. This study contributes to comparative education by offering a culturally grounded resource leadership model that supports educational equity, local values, and policy reform in diverse schooling systems across Southeast Asia.

**Keywords:** Islamic education leadership, culturally responsive leadership, school resource management, student-centered leadership, Modified Fuzzy Delphi Method.



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## INTRODUCTION

The role of school leaders is well established in improving educational quality within school systems internationally, including in the context of Malaysian schools' heterogeneity. In Islamic educational institutions, this responsibility assumes a twofold task: (a) conforming to national academic standards and (b) harmonizing with spiritual, moral, and religious nurturing. Malaysia's education policies, such as the Malaysia Education Blueprint 2013–2025, seek to develop individuals with strong ethical and religious values who can engage globally. As such, Islamic school principals face the challenge of maintaining educational quality alongside faith-based integrity, a combination requirement that requires a contextually derived leadership profile (Hammad & Shah, 2019).

National reform initiatives increasingly demand strategic and data-driven leadership beyond traditional administrative roles. However, most leadership plans are based on generic or Western theories of leadership. Such models are frequently silent about the socio-religious intricacies and cultural expectations of Islamic education (Alazmi & Bush, 2024; Özkan & Çakir, 2024). Islamic school leaders must navigate the dual demands of meeting national academic standards while upholding religious values. This challenge is compounded by limited funding and the need to remain accountable to both the Ministry of Education and the respective state religious authorities.

In the field of comparative education, scholars caution against the uncritical transfer of leadership models across sociocultural contexts, as such practices often overlook local cultural logics and institutional realities (Marginson & Yang, 2020; Phillips & Ochs, 2004). In Malaysia, school leadership frameworks have been shaped largely by Western-centric models that prioritize efficiency, accountability, and instructional outcomes. While these approaches offer valuable insights, they insufficiently address the dual responsibility faced by Islamic school leaders, meeting national academic standards while upholding spiritual, moral, and religious values. This creates a policy-practice gap, where leadership training, heavily reliant on Western-derived concepts, does not fully equip principals of Islamic schools to navigate the complex demands of dual governance, answerable both to the Ministry of Education and state religious authorities. Comparative studies from Indonesia, Brunei, and Southern Thailand illustrate that faith-based schools require leadership models that integrate cultural and religious dimensions with strategic management. However, in Malaysia, the absence of a culturally responsive framework for resource leadership has resulted in fragmented practices, reduced policy relevance, and a limited capacity to support holistic student development. Addressing this gap requires a model that is both contextually embedded and theoretically robust, bridging Islamic educational values and global leadership discourse.

The leading school resources domain examines the ecosystem that school leaders navigate, including people, data, funds, and technology, to create learning environments. Three interconnected subdomains were the focus of this study: (a) leading human resources to maximize student learning; (b) leading resources systematically: ICT, financial, and data; and (c) leading funds and information to develop teacher competency. These leadership roles are based on a fusion of professional responsibility and moral oversight, which is central to faith-based education (Lahmar, 2024; Striepe et al., 2014).

Although current policy places considerable emphasis on instructional leadership and systemic school improvement, many Islamic schools function without formal or culturally appropriate leadership paradigms. Conventional leadership theory provides insufficient direction on how strategic resource leadership can be aligned with the values, procedures, and context of Islamic schooling. This absence of contextualization undermines leadership development programs, reduces their policy relevance, and perpetuates fragmentation among institutions. The Malaysia Education Blueprint promotes student-centered, evidence-based leadership. Still, it provides little guidance on how to reconcile these expectations with the religious imperatives and cultural expectations of Islamic schools. Thus, there is a strong demand for a culturally embedded resource leadership framework designed explicitly for Malaysian Islamic schools that combines spiritual accountability and strategic management, fosters teachers' development, and improves students' achievements, all grounded in Islamic



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teachings and national aspirations.

Therefore, this study aimed to construct a contextual and culturally embedded framework for school resource leadership in Islamic schools in Malaysia. The specific objectives are as follows:

- i. To identify culturally grounded indicators for a practical school resource leadership framework in Malaysian Islamic schools and
- ii. To validate these indicators using expert consensus through the Modified Fuzzy Delphi Method.

The resulting framework is intended to support policymakers, school leaders, and training providers in strengthening context-sensitive leadership development across Malaysia's Islamic education system and more broadly Southeast Asia's faith-based schooling landscape.

## LITERATURE REVIEW

This section reviews prior studies on leadership in Islamic schools, beginning with the concept of resource leadership in Islamic education.

### ***Concept of Resource Leadership in Islamic Education***

Effective school leadership is widely recognized as a cornerstone of school improvement. In Islamic educational settings, leadership extends beyond administrative competence to encompass spiritual responsibility. A central dimension in this context is resource leadership, which refers to the strategic management of financial, human, and physical resources (McInerney & Ractliffe, 2025). However, unlike in secular models, leaders in Islamic schools are expected to act as ethical stewards, aligning their actions with values such as *amanah* (trust), *barakah* (blessing), and *maslahah* (public interest) (Alazmi, 2025; Culduz, 2024). McInerney and Ractliffe (2025) emphasized that resource leadership plays a strategic role in sustaining instructional quality and supporting professional development and long-term institutional goals.

In Islamic schools, resource leadership is not merely a technical function. It demands ethical intentionality and spiritual awareness regarding how funds are allocated, staff are supported, and infrastructure is developed. This dual responsibility, encompassing administrative and moral dimensions, sets Islamic school leaders apart. They are required to navigate resource decisions that reflect both effectiveness and faith-based integrity (Lahmar, 2024; Salamun, 2013).

While resource leadership is often interlinked with other leadership domains, such as instructional and distributed leadership, its unique contribution lies in enabling these functions. For example, ensuring access to quality teaching materials and well-trained teachers is a precondition for effective instructional leadership (Hallinger & Murphy, 1985). Similarly, enabling shared leadership practices grounded in *shura* (mutual consultation) requires equitable distribution of resources among staff and departments (Amzat, 2017; Khan, 2024).

Despite their importance, many Islamic schools face practical barriers to implementing strong resource leadership. These include limited financial autonomy, a shortage of leaders trained in strategic planning, and the absence of clear policy guidelines for aligning Islamic values with modern administrative practices (Masnawati & Darmawan, 2022). Consequently, resource use often remains inconsistent, reactive, and overly dependent on the individual strengths of school principals.

These challenges highlight the urgent need for a contextually responsive resource leadership framework. Rather than adopting models borrowed from Western traditions, such frameworks must be grounded in the religious, cultural, and institutional realities of Islamic schooling. As Phillips and Ochs (2004) cautioned, the uncritical transfer of leadership frameworks across cultures can undermine their effectiveness in the new context. Islamic schools



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require resource-leadership models that integrate strategic efficiency with moral guidance.

Unlike in Indonesia, where *pesantren* leadership revolves around the authority of the *kyai*, or in Brunei, where Islamic schools are tightly regulated under a centralized state framework, Malaysian Islamic schools operate within a dual governance system that requires principals to respond to both the Ministry of Education and state religious authorities. This dual accountability creates a distinctive leadership ecology that is more complex than that of neighboring contexts, highlighting the inadequacy of applying generic Western leadership models. In Southern Thailand, Islamic schools contend with minority politics and resource marginalization, while in Malaysia, the challenge lies in harmonizing bureaucratic accountability with faith-based educational values. This comparative perspective underscores the urgency of developing a resource leadership framework that integrates Islamic ethics with strategic governance, advancing Phillips and Ochs's (2004) argument regarding the risks of uncritical policy borrowing in comparative education research.

In summary, resource leadership in Islamic education is a multifaceted concept that combines strategic planning with ethical stewardship. By managing resources in ways that are both effective and faith-consistent, school leaders can foster learning environments that support academic excellence, staff development, and spiritual growth. Developing a clear, localized framework for resource leadership is critical for enhancing the sustainability and integrity of Islamic school leadership.

### ***Towards a Culturally Responsive and Student-Centered Leadership Framework in Malaysian Islamic Schools***

In the Southeast Asian context, particularly in Malaysia, Islamic schools are embedded within a dual-governance system that combines centralized oversight by the Ministry of Education (MOE) with religious authority exercised by institutions such as the Jabatan Agama Islam Negeri (state Islamic departments). This duality creates overlapping jurisdictions and fragmented leadership expectations, particularly in managing the integration of the national and Dini curricula (Badar et al., 2024). These institutional complexities highlight the limitations of a one-size-fits-all leadership model and underscore the need for context-specific frameworks that translate broad leadership ideals into culturally appropriate and operationally relevant practices.

Comparative education theorists caution against uncritical transplantation of educational models across sociocultural contexts. Phillips and Ochs (2004) argued that policy borrowing often neglects the cultural logic underlying educational systems. Similarly, Gong et al. (2022) and Marginson and Yang (2020) contend that Anglo-American leadership paradigms, which are characterized by individualism, efficiency, and transactional governance, can conflict with the spiritual, communal, and ethical imperatives central to Islamic schooling in Southeast Asia. Therefore, any proposed leadership model must be rooted in local values and indigenous epistemologies rather than external templates.

An emerging paradigm with significant relevance is student-centered leadership, which aligns closely with the Islamic concept of *tarbiyyah*, or the holistic nurturing of students' intellectual, emotional, and spiritual growth. Tylianou and Zembylas (2019) emphasize that student-centered leadership promotes inclusive pedagogies, collaborative learning, and personalization. These principles reinforce Islamic aspirations to nurture ethically and spiritually grounded individuals. Within this paradigm, school leaders are seen not only as administrators but also as *murabbis* educators responsible for cultivating *akhlak* (moral character) and *rahmah* (compassionate conduct) among their students.

Empirical findings support this shift. Ahmad Muhaimin Mat Jusoh et al. (2020) found that principals who prioritize student well-being are more likely to invest in teacher professional development, curriculum quality, and data-informed decision-making. Such resource leadership practices are essential for aligning instructional goals with Islamic values and ensuring that education remains both practical and ethically grounded.

Leadership theories such as servant and moral leadership offer complementary lenses to reinforce these values.



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Greenleaf's (1970) servant leadership model, which emphasizes humility, empathy, and community service, closely aligns with the ethical foundations of Islamic educational leadership, particularly in its focus on selflessness, sincerity, and moral responsibility. Similarly, Sergiovanni (2007) conceived moral leadership as centered on ethical integrity and accountability, mirroring the prophetic model of leadership in Islam. These theories, when recontextualized within an Islamic educational framework, provide a theoretical foundation for leadership practices that are not only administratively sound but also spiritually aligned.

In summary, the literature affirms the need for a culturally responsive, student-centered leadership framework that integrates Islamic ethics with adequate resources and instructional management. Such a framework is not only necessary for Malaysia but is also potentially adaptable across Southeast Asian Islamic schooling systems where similar socio-religious dynamics are prevalent.

### **Conceptual Framework**

This study adopts Robinson's (2011) Student-Centered Leadership Model as an initial reference point, as it emphasizes leadership practices that enhance student learning through professional development, resource optimization, and strategic school management. However, while Robinson's framework offers a strong international benchmark, it also reflects assumptions rooted in secular and efficiency-driven paradigms. To address the unique context of Malaysian Islamic schools, this study adapts Robinson's model by incorporating Islamic epistemological principles, ensuring that leadership is not only strategic but also spiritually grounded and culturally responsive.

The adaptation of Robinson's (2011) Student-Centered Leadership Model into this study's School Resource Leadership Framework is justified by the alignment between her leadership dimensions and the resource-based domains identified for Malaysian Islamic schools. For instance, Robinson's emphasis on ensuring high-quality teaching, supporting teacher learning, and strategically allocating resources directly corresponds with the domains of Leading Human Resources, Leading ICT–Data–Finance, and Leading Funds and Information for Teacher Competency. While Robinson's model originates from a secular perspective, its focus on evidence-based practice, relational trust, and resource optimization complements Islamic values such as *amanah* (trust), *ihsan* (excellence), and *shura* (consultation). By contextualizing Robinson's model within Islamic epistemology, this study bridges global leadership theory with the cultural and spiritual realities of Malaysian Islamic schooling.

This framework was adapted and refined using the Modified Fuzzy Delphi Method (MFDM) to suit the context of Malaysian Islamic schools, integrating both empirical validation and spiritual values into the model. Based on expert consensus, three domains were established: Leading Human Resources for Student Learning, Strategic Resource Management (ICT, Funds, Data), and Developing Teacher Competency through Funding and Knowledge. These domains form the core of the faith-aligned leadership model, underpinned by Islamic values that guide ethical decision-making and moral stewardship. The framework is also grounded in Islamic epistemology, which situates leadership not only as a managerial function but also as moral and spiritual trust (*amanah*).

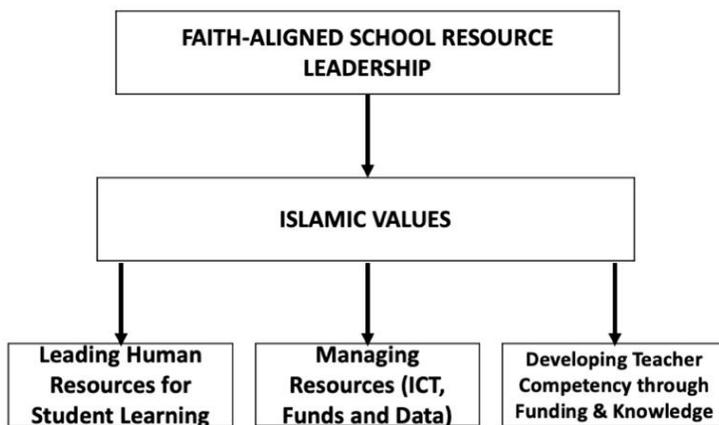
Leadership in Islamic schools draws upon principles such as *maqasid al-shariah* (higher objectives of Islamic law), which emphasize justice, welfare, and the preservation of knowledge, and *tarbiyyah*, which frames education as the holistic nurturing of intellect, faith, and character. Thus, resource leadership is greater than the technical allocation of funds and staff. An act of ethical stewardship aligns material resources with divine accountability. This theoretical grounding strengthens the framework's contribution to comparative education debates by offering a faith-informed model that challenges the dominance of secular, efficiency-oriented paradigms and demonstrates how Islamic values can enrich global theories of educational leadership (Alazmi & Bush, 2024; Alazmi & Yang, 2020).

The first domain focuses on supporting personnel, fostering a collaborative school culture, and aligning staff practices with student learning objectives. The second domain emphasizes the importance of managing digital tools, finances, and data systems to improve school operations and learning outcomes. The third domain underscores the necessity of enhancing teachers' capabilities through continuous professional development supported by financial



and informational resources. This conceptual framework bridges the international leadership theory with local Islamic educational values, offering a contextually grounded model for improving schools. The framework's structure is shown in Figure 1.

**Figure 1**  
*Conceptual Framework*



## **METHODS**

The research method applied in this study is explained in the following subsections.

### ***Research Design***

This study employed the Modified Fuzzy Delphi Method (MFDM), a hybrid of the traditional Delphi technique and fuzzy set theory, to achieve structured expert agreement. FDM would be especially beneficial in research on more abstract or complex constructs, where expert judgment is required. The combination of fuzzy logic and the classical Delphi model has the potential to accommodate subjectivity, linguistic uncertainty, and imprecise responses. It will also improve the accuracy and consistency of data interpretation (Saedah Siraj et al., 2020).

Ishikawa et al. (1993) developed this method. It was created to address factors associated with the classical Delphi method, such as low rates of convergence, long collection periods, and the potential for information loss over rounds. Fuzzy logic enhances expert consensus by quantifying qualitative judgements using a fuzzy membership function (Nguyen, 2024). Although other types of fuzzy numbers, such as trapezoid and Gaussian distributions, are available, this study employed triangular fuzzy numbers because of their ease of use and capability to capture expert knowledge.

FDM was conducted in three organized cycles. In round 1, participants were interviewed using semi-structured questions to generate initial ideas about what would indicate leadership. Round 2: Expert validation. The aim of Round 2 was to obtain expert opinions on the clarity, relevance, and contextual appropriateness of each indicator. Expert evaluations were based on FDM in Round 3, defuzzification scores,  $d (\leq 0.2)$  threshold values, and a minimum consensus agreement level of 75% to verify the indicators.

Although FDM can improve decision-making precision and minimize individual bias, it still retains some drawbacks of the classical Delphi method, including susceptibility to the quality of the expert panel and the mandate of methodological rigor in determining the criteria of consensus. However, FDM remains a popular and well-regarded method in fields such as education, management, engineering, and the social sciences, especially when research is grounded in expert validation. In this study, FDM was selected because it is an appropriate method for refining and



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validating the facets of culturally responsive leadership in Malaysian Islamic schools.

All items were presented in a structured questionnaire for expert rating on a 7-point Likert scale (1 = Strongly Disagree to 7 = Strongly Agree). The responses were then translated into crisp scale values using the defuzzification methods described in Table 1.

**Table 1**  
*Level of Consensus and Fuzzy Scale Value*

| Likert Scale | Level of Consensus        | Fuzzy Scale      |
|--------------|---------------------------|------------------|
| 7            | Strongly Disagree         | 0.90, 1.00, 1.00 |
| 6            | Agree                     | 0.70, 0.90, 1.00 |
| 5            | Somewhat Agree            | 0.50, 0.70, 0.90 |
| 4            | Neither Agree or Disagree | 0.30, 0.50, 0.70 |
| 3            | Somewhat Disagree         | 0.10, 0.30, 0.50 |
| 2            | Disagree                  | 0.00, 0.10, 0.30 |
| 1            | Strongly Disagree         | 0.00, 0.00, 0.10 |

*Note.* Ramlan Mustapha & Ghazali Darussalam (2018). *Application of the Fuzzy Delphi Method in social science research*. University of Malaya Press.

### **Sampling**

The study used purposive sampling to select 23 active experts in Islamic education, school leadership, and educational management in Malaysia. Purposeful sampling, a non-probability sampling strategy, is commonly employed in qualitative research and Delphi studies to elicit in-depth and context-specific information from individuals with known domain expertise. Gall et al. (1996) stated that with this technique, researchers can collect in-depth data from a select group of experts and knowledge holders relevant to the research purpose.

Clearly defined inclusion criteria guided the selection of experts, ensuring that participants were appropriately qualified to assess and validate the proposed leadership indicators. The criteria included: (a) a minimum of five years of professional experience in school leadership or Islamic education, (b) prior or current service in leadership roles such as head of school, education officer, ministry official, school inspector or lecturer and (c) voluntary consent to participate and provide constructive feedback in all three rounds of the study.

The expert panel represented a diverse range of institutions, including religious secondary schools (SMKA and SABK), government education departments, inspection divisions, teacher-education institutes, and universities. To capture this diversity, experts were categorized as Policy Makers (e.g., ministry officials, inspectors, senior officers, and institutional leaders) and Policy Implementers (e.g., principals, senior assistant teachers, lecturers, and deans). The demographic information of the expert panel is summarized in Table 2.

**Table 2**  
*The Expert Panel Information*

| Respondent Position  | Total |
|--|-------|
| <b>Policy-Makers</b>   |       |
| Deputy Director, State Education Department                                      | 1     |
| Chief Assistant Director, State Education Department (Islamic Education Affairs) | 2     |
| Head of School Inspector, Inspection Division                                    | 1     |
| Senior Inspector, Inspection Division  | 1     |
| Chief Assistant Director, Islamic Education Division (MOE)                       | 1     |



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|  |    |
|--|----|
| Assistant Director, Islamic Education Division                     | 2  |
| Assistant Director, Research Division (MOE)                        | 1  |
| Lecturer, Institute of Aminuddin Baki (IAB)                        | 1  |
| Assistant Director, Institute of Teacher Education Malaysia (IPGM) | 1  |
| Leadership Practitioner from Industry                              | 1  |
| <b>Policy Implementers</b>   |    |
| Principal, SMKA (National Religious Secondary School)              | 1  |
| Principal, SABK (Government-aided Religious Secondary School)      | 1  |
| Excellent Principal, Private School                                | 1  |
| Dean, Faculty of Islamic Studies, Private University               | 1  |
| Lecturer, Institute of Teacher Education (IPG) – Islamic Education | 3  |
| Lecturer, Public University – Islamic Education                    | 1  |
| Headmaster   | 2  |
| Senior Assistant Teacher, SMKA                                     | 1  |
| Total  | 23 |

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## **Data Collection**

This study received ethical approval from the Universiti Malaya Research Ethics Committee (UMREC Approval No.: UM.TNC2/UMREC\_4078). All expert participants were informed of the study procedures and objectives, and each provided voluntary informed consent before participating in all three rounds of data collection. Their anonymity, confidentiality, and right to withdraw were assured throughout the study.

Data collection was conducted in three well-organized phases according to the Modified FDM. Each stage was carefully planned to serve a function in generating, refining, and validating the role of school resource leadership indicators in the Malaysian Islamic school setting.

During Round 1, qualitative data were collected via semi-structured interviews conducted with six experts who met the study's inclusion criteria. The number of experts differs between rounds by design: six experts were engaged in Rounds 1 and 2 for in-depth qualitative exploration and item refinement, whereas Round 3 involved 23 experts for quantitative validation using the FDM. This sequencing aligns with methodological recommendations that early Delphi rounds use smaller expert panels for content generation (Malterud et al., 2016), followed by larger panels to stabilize group consensus (Hohmann et al., 2025).

These interviews probed expert opinions on what practices might be most effectively led by school resources and generated an initial list of 72 indicators. The interviews were transcribed and analyzed using thematic analysis, which allowed us to identify a range of themes, leadership constructs, and context-bound epistemic understandings aligned with Islamic educational values and realities.

In Round 2, a structured questionnaire was created based on the findings from Round 1. This questionnaire was returned to the same panel of six experts with instructions to assess the clarity, contextual relevance, and conceptual validity of each indicator. In addition to rating the items, the experts were allowed to comment on the wording and acceptability of each indicator. The instrument for Round 2 was developed from the 72 preliminary indicators and refined for clarity, linguistic precision, and contextual fit before being structured into a 7-point Likert scale for subsequent fuzzy analysis.

In Round 3, the questionnaire was emailed or handed to a panel of 23 experts. Participants rated their level of agreement on a 7-point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). The responses were analyzed using fuzzy logic. The Likert-scale answers were transformed into triangular fuzzy numbers representing the minimum, most likely, and maximum values. This conversion improved the precision of expert evaluations by mitigating subjectivity and linguistic uncertainty. The fuzzy data were further analyzed to determine threshold



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values, agreement levels, and defuzzification scores during validation. The finalized questionnaire, comprising 72 refined indicators organized into the three leadership domains, served as the complete instrument used by experts to rate in Round 3.

The entire data collection process took several weeks of planning and coordination, with continued follow-up to ensure expert input and complete responses. All information was documented, anonymized, and stored in a secure database in accordance with ethical research standards.

## **Data Analysis**

The data analysis in this study was performed using the Fuzzy Delphi Method (FDM), in which expert responses on Likert-scale ratings were converted into fuzzy numbers and analyzed in relation to the threshold value (d), percentage of agreement among experts, and defuzzification value. This multistep process was used to identify expert consensus and prioritize leadership indicators for Islamic schools in Malaysia.

In round one, qualitative interviews with six experts were conducted to explore their perspectives on school resource leadership and to generate an initial pool of indicators. This stage produced 72 preliminary indicators derived from thematic analysis of the interview data.

In round two, the same panel of experts reviewed the proposed indicators using an open-ended questionnaire to assess their clarity, contextual fit, and conceptual soundness. Based on their feedback, several indicators were revised, merged, or removed to ensure content validity and contextual relevance before proceeding to the next round.

In round three, 23 experts evaluated the refined indicators using the FDM process. At this stage, expert ratings were transformed into triangular fuzzy numbers for each indicator, defined by three values: minimal value (a), most likely value (b), and maximum value (c). These values form a triangular fuzzy set for each item, enabling greater flexibility in modelling expert opinions, particularly when some judgements involve a high degree of subjectivity in scoring.

The threshold (d) was calculated to determine the panels' consensus level. According to Manakandan et al. (2017),  $d \leq 0.2$  is accepted as the standard criterion of agreement. If the threshold exceeded 0.2, the indicator was considered unacceptable unless accompanied by a high level of expert consensus. All indicators with  $d \leq 0.2$  were accepted without any additional restrictions.

Subsequently, the expert agreement rate is assessed. A minimum of 75% consensus (three-quarters of the panel) as specified by Murry Jr. and Hammons (1995) was used to retain the indicators. Indicators meeting this agreement level were retained even if their threshold values slightly exceeded 0.2, provided that substantive consensus was high.

The final step was defuzzification, performed using the center of gravity (COG) method:  $S = (a + b + c) / 3$ . Indicators with  $S \geq 0.5$  were considered valid, while those with  $S < 0.5$  were excluded from the study. This process also facilitated the ranking of indicators to produce a prioritized list of school resource leadership competencies. The consensus-identifying parameters used in this study are summarized in Table 3.

**Table 3**  
*Conditions of Triangular Fuzzy Numbers and Defuzzification*

| Requirement              | Value       |
|--------------------------|-------------|
| Threshold value (d)      | $\leq 0.2$  |
| Percent Expert Agreement | $\geq 75\%$ |
| $\alpha$ -cut value      | $\geq 0.5$  |



**Reliability and Validity**

To strengthen the methodological rigor of this study, both reliability and validity checks were conducted in addition to the Fuzzy Delphi Method (FDM) analysis.

**Reliability.** Inter-rater reliability was examined using Cohen’s kappa coefficient to measure the extent of agreement among the expert panel. According to Landis and Koch (1977), values above 0.70 indicate substantial agreement, whereas values above 0.80 reflect near-perfect agreement. In this study, the overall kappa coefficient exceeded 0.78, indicating strong consistency among experts’ evaluations of the proposed indicators. This result reinforces the reliability of the consensus obtained across the FDM rounds.

**Validity.** Construct validity was enhanced through methodological triangulation, which combined three data sources: (a) established literature on Islamic educational leadership, (b) expert consensus gathered via the FDM, and (c) alignment with national policy documents such as the Malaysia Education Blueprint (2013–2025). The convergence of these sources ensured that the final framework was not only theoretically sound but also practical and aligned with policy directions. This triangulated validation process confirms that the School Resource Leadership Framework authentically reflects the competencies and values required for effective leadership in Malaysian Islamic schools.

**RESULTS**

Within the overarching construct of Leading School Resources, three important domains were identified and subjected to scrutiny using a modified Fuzzy Delphi Method (FDM) to achieve methodological soundness and situational understanding in the Islamic school environment.

The most decisive subdomain was Leading Human Resources to Maximize Student Learning, with a fuzzy score (A) of 0.897, a threshold value (d) of 0.119, and 90% expert consensus. The second highest-ranking subdomain was Leading Resources Systematically (ICT, Data, Finance), which achieved a fuzzy score of 0.894, a cut-off of 0.127, and 88% agreement. The third subdomain, Leading Funds and Information to Develop Teacher Competency, also met the FDM acceptance condition with a fuzzy score of 0.886, a threshold of 0.139, and 88% agreement.

These findings indicate a high level of expert agreement and validate each of the three subdomains as necessary elements of a culturally responsive leadership model for Islamic schools. The use of FDM, which includes triangular fuzzy numbers ( $m_1, m_2, m_3$ ), defuzzification scores, threshold values, and agreement percentages, guarantees that each subdomain is assessed in an objective and statistically valid manner. All items with  $d \leq 0.2$  and  $\geq 75\%$  expert agreement were accepted as valid, in accordance with the established Fuzzy Delphi criteria. An overview of the fuzzy evaluation results is displayed in Table 4.

**Table 4**  
*Items Representing the Domain of Leading School Resources*

| Domain/<br>Subdomain                               | Num<br>Item            | Triangular Fuzzy Number |                    | Conditions of Fuzzy Evaluation Process |       |       |                    | Rank<br>-ing |   |
|--|------------------------|-------------------------|--------------------|--|-------|-------|--------------------|--------------|---|
|  |                        | Thresh-old<br>Value (d) | Agree-<br>ment (%) | m1                                     | m2    | m3    | Fuzzy<br>Score (A) |              |   |
| <b>Leading<br/>Resources</b>                       | <b>School</b>          |                         |                    |  |       |       |                    |              |   |
| Leading<br>Resources<br>to<br>Maximize<br>Learning | Human<br>to<br>Student | 17                      | 90                 | 0.119                                  | 0.783 | 0.927 | 0.980              | 0.897        | 1 |



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|   |    |       |    |       |       |       |       |   |
|---|----|-------|----|-------|-------|-------|-------|---|
| Leading Resources Systematically (ICT, Data, Finance)       | 40 | 0.127 | 88 | 0.780 | 0.923 | 0.978 | 0.894 | 2 |
| Leading Funds and Information to Develop Teacher Competency | 15 | 0.139 | 88 | 0.771 | 0.915 | 0.972 | 0.886 | 3 |

### ***Leading Human Resources to Maximize Student Learning***

This subdomain comprises 17 verified indicators that reflect school leaders' capacities to mobilize and orient human resources to enhance student learning. The indicators focus on the leader's ethical practice, collaborative work, emotional intelligence, and knowledge of data use. One of the top ten items was school leaders' consideration of religious rulings before making decisions about the school, which had a fuzzy score of 0.941 and an expert agreement of 100%. Other high indicators are fostering good relationships with the Ministry of Education to obtain support for the school program (0.920) and clearly communicating program goals before implementation (0.917). Such practices reflect value-based policy leadership that is inclusive of cultural and religious implications in everyday school administration.

Furthermore, the subdomain features provide evidence of the use of data to inform teacher performance, spiritual approaches used to discipline teacher and student behavior, and the participation of stakeholders, including parents and the staff community, in decision-making. Items that focused on monitoring the teacher process, ceasing ineffective programs, and preparing evaluation reports also received a similarly strong consensus. All 17 items within this subdomain met our threshold criterion ( $d \leq 0.2$ ) and received expert agreement of 83% or higher, suggesting high consensus on their relevance. A summary of acceptance criteria is presented in Table 5, while the complete list of 17 indicators is available in Appendix A.

**Table 5**

*Summary of Leading Human Resources to Maximize Student Learning Subdomain*

| Indicator Set  | No. Items | Agreement (%) | Fuzzy Score Range | Status       |
|--|-----------|---------------|-------------------|--------------|
| Leading Human Resources to Maximize Student Learning | 17        | 83–100%       | 0.858–0.941       | All accepted |

### ***Leading Resources Systematically (ICT, Data, Finance)***

This subdomain includes 40 indicators of a set of technologies, data, and financial sources that school leaders systematically use to enhance school effectiveness. The indicators reflect a data-informed, technology-oriented, and financially responsible approach to leadership. One of the highest-rated items is that the head of the school can identify the reason for student absenteeism in school programs, which has a fuzzy score of 0.925 and 96% agreement. In addition to these very high predictors, designing digital applications to replace print documents (0.920) and monitoring students' attendance in religious activities, such as congregational prayers, through a compliance unit (0.917). These results indicate an increasing focus on digitalization, preemptive action regarding participation data, and student well-being in resource planning.

A variety of additional indicators also emphasize the importance of deploying data from within and outside of the school, including in the form of summative assessments and profiles of the socioeconomic make-up of students to inform decision-making and targeted intervention. Items on financial transparency (maintaining accurate student data for funding applications and managing finances in accordance with official regulations) were also highly ranked by the expert panel. In the context of ongoing institutional relationships, all 40 indicators of the subdomain were adopted; agreement rates ranged from 78% to 96%, and defuzzification scores ranged from 0.864 to 0.925. These



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findings corroborate the strong expert consensus on the significance of strategic resource leadership in Malaysian Islamic schools. A summary of acceptance criteria is presented in Table 6, while the complete list of 40 indicators is available in Appendix B.

**Table 6**  
*Summary of Leading Resources Systematically Subdomain*

| Indicator Set   | No. Items | Agreement (%) | Fuzzy Score Range | Status       |
|---|-----------|---------------|-------------------|--------------|
| Leading Resources Systematically (ICT, Data, Finance) | 40        | 78–96%        | 0.864–0.925       | All accepted |

### ***Leading Funds and Information to Develop Teacher Competency***

This subdomain includes 15 validated indicators related to the influence of the head of schools in managing financial resources and using information to promote teacher quality. The signals showcase joint financial planning efforts, innovative approaches to external support, and the role of data in guiding professional development. The most important indicator is the collaboration between school leaders and the Parent-Teacher Association (PTA) to secure alternative funding, with a fuzzy score of 0.913 and expert agreement of 91%. Their nearest competitors are two indicators designed to find other financial sources to improve school buildings and B40 students, each with a score of 0.909. There was also consensus on the need to assess teachers' competency gaps to design appropriate capacity development programs ( $\alpha = 0.904$ ) and to establish collaborative links with NGOs and external partners to secure funding.

Simple data tools (for example, Google Forms) and basic statistical tools also indicate the promise of practical efficiency in data for informing decision-making in context and for evaluating teaching quality. Additional considerations include budgeting for digital teaching tools, presenting to elected representatives (e.g., the ADUN), and promoting in-house sharing of expertise to minimize training expenses. Interestingly, the Panel of Experts also approved the deployment of 'student feedback mechanisms', including suggestion boxes for assessing teacher performance. All 15 items in this subdomain met the acceptance criteria, with fuzzy scores ranging from 0.864 to 0.913 and agreement percentages ranging from 83% to 96%. These findings provide strong evidence of expert consensus on the significance of financial and informational leadership strategies in stimulating teacher advancement in Malaysian Islamic schools. A summary of acceptance criteria is presented in Table 7, while the complete list of 15 indicators is available in Appendix C.

**Table 7**  
*Summary of Leading Funds & Information to Develop Teacher Competency Subdomain*

| Indicator Set  | No. Items | Agreement (%) | Fuzzy Score Range | Status       |
|--|-----------|---------------|-------------------|--------------|
| Leading Funds and Information for Teacher Competency | 15        | 83–96%        | 0.864–0.913       | All accepted |

## **DISCUSSIONS**

The validation of the three subdomains in the proposed school leadership framework provides valuable insights into culturally responsive and effective leadership practices in Islamic schools in Malaysia. These subdomains, refined through expert consensus via the Modified Fuzzy Delphi Method, illustrate how Islamic educational values can be meaningfully integrated into contemporary leadership theory.

### ***Leading Human Resources to Maximize Student Learning***

The top-ranked indicator, which achieved full consensus among experts, highlighted the centrality of religious



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values in leadership decision-making. This reflects the distinctive role of Islamic ethics (*amanah*, *ikhlas*, and *shura*) in shaping leadership behavior and institutional governance. Such value-driven leadership aligns with Bush and Glover (2014), Jabbar et al. (2018), and Belcher (2017), who emphasize moral purpose as a foundation for effective school improvement. Compared with Indonesian *pesantren* leaders, who balance traditional *kyai* authority with modern administrative expectations (Brooks & Mutohar, 2018), Malaysian Islamic school leaders operate within a more centralized national policy framework, requiring them to reconcile religious ethos with bureaucratic directives.

The high agreement on the importance of strong partnerships with education authorities and clarity of program goals reflects a broader understanding of distributed and collaborative leadership, consistent with Goldsmith (2006) and Wu et al. (2020). Similarly, support for school-based data use and stakeholder involvement in decision-making signals a shift towards transparency, collective responsibility, and evidence-informed leadership (Fullan & Hargreaves, 2016; Gronn, 2002; Óskarsdóttir et al., 2020). In Islamic schools, these practices embody the religious principle of *musyawarah* (consultation) (Abdallah et al., 2019).

The emphasis on humanizing leadership, particularly emotional attunement in interactions with teachers, students, and parents, reinforces the rise of relational and empathetic leadership models (Jian, 2022). In Islamic contexts, this corresponds to the value of *rahmah* (mercy) and the cultivation of trust and respect within the school community (Lumpkin & Achen, 2018).

Collectively, the indicators suggest that effective mobilization of human resources depends not only on administrative efficiency but also on an ethical, inclusive, and culturally grounded leadership philosophy.

### **Leading Resources Systematically (ICT, Data, Finance)**

The expert consensus on strategies for addressing absenteeism, digital documentation, and monitoring students' religious participation demonstrates the growing adoption of technology-supported educational management. This trend parallels the global shifts in educational leadership practices (Hammad & Al-Harhi, 2021; OECD, 2019). Strong support for data-informed decision-making indicates a transition from intuition-based to evidence-backed practices, consistent with the findings of Saxena and Parivara (2025) and Tubulingane (2024). Within Islamic schools, data collection also aligns with religious responsibility by supporting the monitoring of *ibadah* and moral development (Hashim et al., 2020).

The emphasis on financial transparency and accountability shows that Islamic school leaders are expected to uphold both professional and religious obligations. This resonates with the findings of Eren and Aydın (2025) and Kim (2011), who identified financial stewardship as a critical component of leadership effectiveness. The focus on digital applications and administrative innovation further signifies institutional adaptability and readiness for reform, reflecting the "use of the unexpected" (Cunha et al., 2006) and the commitment to efficient governance (Krasnova, 2023).

Overall, this subdomain affirms that effective leadership of ICT, data, and finance is not merely operational but strategic, supporting continuous school improvement and aligning organizational practices with both national education priorities and Islamic educational values.

### **Leading Funds and Information to Develop Teacher Competency**

The findings highlight that developing teachers' competencies requires strategic, collaborative leadership grounded in Islamic ethics and values. Leaders must proactively identify skill gaps and allocate resources for targeted professional development, reflecting a shift from reactive to planned capacity building. Collaboration with parent-teacher associations and efforts to secure alternative funding demonstrate outwards-facing leadership aligned with community engagement and the Islamic values of *ukhuwah* and *maslahah* (Agyekum et al., 2025; Ansari, 2023; Hanif et al., 2025).



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The endorsement of digital tools and basic data systems reflects a pragmatic approach suitable for resource-limited Islamic schools. Using data to prioritize training needs, monitor progress, and allocate resources supports scalable and contextually relevant decision-making (Brooks et al., 2021; Ivanov et al., 2021). Incorporating student feedback and promoting internal knowledge sharing further enhances participatory and reflective leadership, consistent with the Islamic principle of *shura* (Raski et al., 2019; Ruhullah & Ushama, 2024).

Crucially, teacher development in Islamic schools requires a balance between academic quality and spiritual formation. Teachers are viewed as pedagogical practitioners and moral exemplars. Thus, professional development must encompass pedagogical skills as well as the cultivation of *akhlaq*, *hikmah*, and *amanah* (Alazmi & Bush, 2024; Darling-Hammond, 2017; Sidek Mohd Noah & Jamaludin Ahmad, 2005). This dual focus reflects a core principle in comparative education that leadership models must be culturally congruent to be meaningful and effective (Green, 2017; Marginson & Yang, 2020). Accordingly, resource leadership for teacher development in Malaysia operates not only as a technical function but also as a faith-informed strategic responsibility.

## LIMITATION OF THE STUDY

While this study provides valuable insights into the school resource leadership of Malaysian Islamic Schools, there are a few limitations that should be highlighted. First, the data used in this study represented only expert opinions, even though they were systematically collected and analyzed using the FDM; they were inevitably influenced by participants' subjective experiences, professional backgrounds, and personal interpretations. This reduces decision-making to expert judgment and raises the possibility of bias or other perspectives in determining culturally specific leadership practices.

Second, this study was limited to Islamic schools in Malaysia, which are informed by a particular religious, cultural, and policy environment. Therefore, the findings may have limited transferability to other school types (e.g., secular, private, or non-Islamic religious schools) or to different national contexts. Differences in the educational governance framework, institutional resources, and local cultural norms across regions may reduce the generalizability of the two state-verified achievements to other settings.

Finally, despite the study's attainment of expert consensus and methodological robustness, it did not feature empirical validation of the framework within real school settings. Our suggestion for future work is to test the framework in practice through longitudinal studies or evaluations of the indicators' usability to impact school leadership and student outcomes.

## CONCLUSION

This study identified three key subdomains within the domain of Leading School Resources: (a) Leading Human Resources to Maximize Student Learning, (b) Leading Resources Systematically (ICT, data, and finance), and (c) Leading Funds and Information to Develop Teacher Competency. Each subdomain is represented by indicators validated by experts that portray relevant and efficient leadership practices in the Malaysian Islamic school context.

The results suggest that Islamic values-driven leadership, data-informed decision-making, strategic financial planning, and the incorporation of Islamic values in school leadership are essential. Together, these elements constitute a culturally responsive framework that is consistent with the spiritual mission of Islamic education and the strategic focus of Malaysia's national education policies. This research provides a base leadership model for leaders, policymakers, and curriculum planners to improve managerial practices in Islamic schools. By providing a reliable, contextually grounded scale, this study facilitates more critical and strategic leadership capable of managing human capital, technology, and financial resources to support student learning and teacher performance.

In addition to strengthening managerial practices at the school level, the proposed School Resource Leadership



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Framework also has direct implications for educational policy reform in Malaysia. This resonates with the key aspirations of the Malaysia Education Blueprint 2013–2025, particularly Shift 5 (ensuring high-performing school leadership) and Shift 9 (strengthening public–private partnerships), while addressing a gap in policy guidance for faith-based institutions. By embedding values such as *amanah* (trust), *ikhlas* (sincerity), and *shura* (consultation) into the core of resource leadership, the framework provides a culturally responsive tool for both the Ministry of Education and the State Islamic Religious Department to design strategic, spiritually grounded leadership training modules. Beyond Malaysia, this framework is adaptable to Southeast Asian Islamic schooling contexts, where balancing modernization with religious integrity remains a shared challenge, thereby positioning Malaysia as a policy innovator in the region.

Theoretically, this research contributes to the current debate on comparative and values-based educational leadership by offering a flexible model that can be combined with ideas to underpin leadership training, professional education, and policy in Islamic education systems in the future. Although the model was developed for the Malaysian setting, it is designed to be adaptable for use elsewhere in Southeast Asian or Muslim-majority educational environments that share the system’s challenges. In countries such as Brunei and Southern Thailand, where Islamic schooling operates under varying degrees of state control, this framework may offer a culturally adaptable model that supports faith-integrated leadership without undermining national educational objectives.

Finally, this study will enhance the quest for the best Islamic education by combining traditional leadership theory and culturally based school leadership. It leaves the reader with a need for further conversation and creativity in leadership development, especially in settings where educational aims must be sensibly situated within religious identity, community needs, and national policy mandates.

## ACKNOWLEDGEMENTS

The authors would like to thank Dr Norfariza Mohd Radzi and Dr Siti Shafiqah Rafiquddin for their excellent supervision, guidance, and moral support in conducting this research. Their positive comments and suggestions greatly helped us to complete this work. The authors are grateful to the colleagues at the Faculty of Education, University of Malaya, for their helpful comments and support throughout this research path.

## REFERENCES

- Abdallah, A., Çitaku, F., Waldrop, M., Zillioux, D., Preteni Çitaku, L., & Hayat Khan, Y. (2019). A review of Islamic perspectives on leadership. *International Journal of Scientific Research and Management*, 7(11), 574–578. <https://doi.org/10.18535/ijerm/v7i11.sh02>
- Agyekum, B., Salifu, I., Eshun, S. N., & Asamoah, M. K. (2025). Exploring the implications of using parent-teacher associations (PTAs) as a pathway for school-community development. *Journal of Professional Capital and Community*. <https://doi.org/10.1108/JPC-06-2024-0092>
- Ahmad Muhaimin Mat Jusoh, Hoque, K. E., & Ghani, M. F. A. (2020). Student-centered leadership and teachers’ competency in integrating Frog VLE in teaching and learning. In *Proceedings of the International Conference on Research in Education Administration and Management (ICREAM 2019) (Advances in Social Science, Education and Humanities Research, Vol. 400, pp. 431–435)*. Atlantis Press. <https://doi.org/10.2991/assehr.k.200130.216>
- Alazmi, A. A. (2025). School leadership in context: the influence of Islamic values and beliefs on Kuwaiti school principal practices. *International Journal of Leadership in Education*, 28(3), 618–638.
- Alazmi, A. A., & Bush, T. (2024). An Islamic-oriented educational leadership model: towards a new theory of school leadership in Muslim societies. *Journal of Educational Administration and History*, 56(3), 312–334. <https://doi.org/10.1080/00220620.2023.2292573>
- Amzat, I. H. (2017). Sharing school leadership: Principals’ empowerment or relegation? In I. H. Amzat & N. P. Valdez (Eds.), *Teacher empowerment toward professional development and practices: Perspectives across*



# MALAYSIAN ONLINE JOURNAL OF EDUCATIONAL MANAGEMENT (MOJEM)

- borders* (pp. 43–58). Springer Singapore. [https://doi.org/10.1007/978-981-10-4151-8\\_3](https://doi.org/10.1007/978-981-10-4151-8_3)
- Ansari, M. M. (2023). Public and private partnerships for higher education financing. In N. V. Varghese & J. Panigrahi (Eds.), *Financing of higher education: Traditional approaches and innovative strategies* (pp. 113–128). Springer Nature Singapore. [https://doi.org/10.1007/978-981-19-7391-8\\_8](https://doi.org/10.1007/978-981-19-7391-8_8)
- Badar, S., Jamil, A. I. B., & Mohd, K. (2024). Research article: Inter-religious elements in Pendidikan Islam KSSM for the future of Islamic religious education in Malaysia. *Asia Pacific Journal of Educators and Education*, 39(2), 137–162. <https://doi.org/10.21315/apjee2024.39.2.8>
- Belcher, D. (2017). Moral leadership in an age of school accountability. *Journal of Leadership Studies*, 11(2), 60–62. <https://doi.org/10.1002/jls.21528>
- Brooks, C., Burton, R., van der Kleij, F., Carroll, A., & Hattie, J. (2021). Towards student-centred feedback practices: Evaluating the impact of a professional learning intervention in primary schools. *Assessment in Education: Principles, Policy and Practice*, 28(5–6), 633–656. <https://doi.org/10.1080/0969594X.2021.1976108>
- Brooks, M. C., & Mutohar, A. (2018). Islamic school leadership: A conceptual framework. *Journal of Educational Administration and History*, 50(2), 54–68. <https://doi.org/10.1080/00220620.2018.1426558>
- Bush, T., & Glover, D. (2014). School leadership models: What do we know? *School Leadership & Management*, 34(5), 553–571.
- Culduz, M. (2024). The impact of educational leadership in improving the learning experience. In A. S. Munna, U. Nwagbara, & Y. Alhassan (Eds.), *Promoting crisis management and creative problem-solving skills in educational leadership* (pp. 168–189). IGI Global. <https://doi.org/10.4018/978-1-6684-8332-9.ch008>
- Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education*, 40(3), 291–309.
- E Cunha, M. P., Clegg, S. R., & Kamoche, K. (2006). Surprises in management and organization: Concept, sources and a typology. *British Journal of Management*, 17(4), 317–329. <https://doi.org/10.1111/j.1467-8551.2005.00470.x>
- Eren, F. C., & Aydin, S. (2025). Bootstrapping efficiency in education: A multi-stage DEA Analysis with TIMSS Data. *European Journal of Education*, 60(3). <https://doi.org/10.1111/ejed.70159>
- Fullan, M., & Hargreaves, A. (2016). *Bringing the profession back in*. Learning Forward.
- Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Educational research: An introduction*. Longman Publishing.
- Goldsmith, M. (2006). Building partnerships: The ideal leader is a person who builds internal and external partnerships. *New England Printer and Publisher*, 69(6), 23–24. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-33745586025&partnerID=40&md5=3b3b1d416173aad752b12cac0a65cbd5>
- Gong, B., Jiang, J., & Silova, I. (2022). Redefining educational transfer and borrowing in the pluriverse. In R. J. Tierney, F. Rizvi, & K. Ercikan (Eds.), *International encyclopedia of education* (4th ed., pp. 290–301). Elsevier. <https://doi.org/10.1016/B978-0-12-818630-5.01042-3>
- Green, M. J. (2017). Adaptation versus authenticity: Achieving leader effectiveness in intercultural encounters with followers - Towards an integrated model. *International Journal of Cross Cultural Management*, 17(2), 257–271. <https://doi.org/10.1177/1470595817706986>
- Greenleaf, R. K. (1970). *The servant as leader*. The Greenleaf Center for Servant Leadership. <https://greenleaf.org/the-servant-as-leader/>
- Gronn, P. (2002). Distributed leadership as a unit of analysis. *The Leadership Quarterly*, 13(4), 423–451.
- Hallinger, P., & Murphy, J. (1985). Assessing the instructional management behavior of principals. *The Elementary School Journal*, 86(2), 217–247.
- Hammad, W., & Al-Harhi, A. S. A. (2021). Aligning “international” standards with “national” educational leadership preparation needs: The case of a master’s programme in Oman. In E. A. Samier, E. S. Elkaleh, & W. Hammad (Eds.), *Internationalisation of educational administration and leadership curriculum: Voices and experiences from the ‘peripheries* (pp. 117–138). Emerald Group Publishing Ltd. <https://doi.org/10.1108/978-1-83909-864-220211008>
- Hammad, W., & Shah, S. (2019). Leading faith schools in a secular society: Challenges facing head teachers of Muslim schools in the United Kingdom. *Educational Management Administration and Leadership*, 47(6), 943–959.



# MALAYSIAN ONLINE JOURNAL OF EDUCATIONAL MANAGEMENT (MOJEM)

- <https://doi.org/10.1177/1741143218775429>
- Hanif, H., Mukri, M., Susanto, I., & Noviarita, H. (2025). Building bridge: Community empowerment program in Islamic University and the practice of Ukhuwwah (Brotherhood). *Journal of Community Positive Practices*, 1, 114–141.
- Hashim, A., Ismail, Z., & Rasol, S. K. B. (2020). Relating teaching practices to student achievement in the field of Ibadah (Worship). *International Journal of Innovation, Creativity and Change*, 11(5), 410–417. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85081734179&partnerID=40&md5=858086574b1839ce3e2ff33edd06b5a6>
- Hohmann, E., Beaufile, P., Beiderbeck, D., Chahla, J., Geeslin, A., Hasan, S., Humphry-Murto, S., Hurley, E., LaPrade, R., Martetschlager, F., Matache, B., Moatshe, G., Monllau, J., Murray, I., Niederberger, M., Ruetschi, U., Shang, Z., Weber, S., Wong, I., & Perry, N. P. J. (2025). Guidelines for designing and conducting Delphi consensus studies: An expert consensus Delphi Study. *Arthroscopy: The Journal of Arthroscopic & Related Surgery: Official Publication of the Arthroscopy Association of North America and the International Arthroscopy Association*. <https://doi.org/10.1016/j.arthro.2025.03.038>
- Ivanov, A. V., Rotanova, M. B., Ivanova, R. A., & Frolova, N. K. (2021). A platform for mixed foreign language teaching at a university: Creation and testing. In *Proceedings of the 2021 IEEE International Conference on Quality Management, Transport and Information Security, Information Technologies (IT&QM&IS)* (pp. 800–802). IEEE. <https://doi.org/10.1109/ITQMIS53292.2021.9642724>
- Jabbar, S. F. A., Ali, H. M., Mohamed, Z. M., & Jalil, F. (2018). Business ethics: Theory and practice in an Islamic context. In J. Bian & K. T. aluyurt (Eds.), *Regulations and applications of ethics in business practice* (pp. 257–271). Springer Singapore. [https://doi.org/10.1007/978-981-10-8062-3\\_14](https://doi.org/10.1007/978-981-10-8062-3_14)
- Jian, G. (2022). From empathic leader to empathic leadership practice: An extension to relational leadership theory. *Human Relations*, 75(5), 931–955.
- Khan, M. H. (2024). Islamic perspective on leadership and management. *Tanazur*, 5(2), 414–429.
- Kim, Y.-L. (2011). Program evaluation for strategic planning and resource management: An approach for school effectiveness evaluation. *KEDI Journal of Educational Policy*, 8(2), 303–322. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84863013562&partnerID=40&md5=d85fa7580ad8ad017133c3aece17d97b>
- Krasnova, E. (2023). The use of digital technologies in the educational space to improve the effectiveness of communication in the “student-teacher” model. In A. Beskopylny, M. Shamtsyan, & V. Artiukh (Eds.), *Lecture Notes in Networks and Systems* (Vol. 574, pp. 433–443). Springer International Publishing. [https://doi.org/10.1007/978-3-031-21432-5\\_44](https://doi.org/10.1007/978-3-031-21432-5_44)
- Lahmar, F. (2024). Redefining leadership: The role of spirituality and motherhood in Muslim women’s educational leadership. *Religions*, 15(12). <https://doi.org/10.3390/rel15121565>
- Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 159–174.
- Lumpkin, A., & Achen, R. M. (2018). Explicating the synergies of self-determination theory, ethical leadership, servant leadership, and emotional intelligence. *Journal of Leadership Studies*, 12(1), 6–20. <https://doi.org/10.1002/jls.21554>
- Malterud, K., Siersma, V., & Guassora, A. D. (2016). Sample size in qualitative interview studies. *Qualitative Health Research*, 26(13), 1753–1760. <https://doi.org/10.1177/1049732315617444>
- Manakandan, S. K., Rosnah Ismail, Mohd Ridhuan Mohd Jamil, & Ragunath, P. (2017). Pesticide applicators questionnaire content validation: A Fuzzy Delphi method. *Medical Journal of Malaysia*, 72(4), 228–235.
- Marginson, S., & Yang, L. (2020). *The role of higher education in generating “public” and “common” goods: A comparison of Sinic and Anglo-American political cultures* (CGHE Working Paper No. 52). Centre for Global Higher Education, University of Oxford. <http://doi.org/10.5287/ora-0z8gkdde5>
- Masnawati, E., & Darmawan, D. (2022). School organization effectiveness: Educational leadership strategies in resource management and teacher performance evaluation. *International Journal of Service Science, Management, Engineering, and Technology*, 2(1), 43–51.
- McInerney, S., & Ractliffe, T. (2025). Sustainability leadership: A praxis of hope. In *Sustainability education for*



# MALAYSIAN ONLINE JOURNAL OF EDUCATIONAL MANAGEMENT (MOJEM)

- children and young people* (pp. 141–155). Routledge.
- Murry Jr, J. W., & Hammons, J. O. (1995). Delphi: A versatile methodology for conducting qualitative research. *The Review of Higher Education*, 18(4), 423–436.
- Nguyen, P.-H. (2024). Fully completed spherical fuzzy approach-based Z numbers (PHIModel) for enhanced group expert consensus. *Computers, Materials and Continua*, 80(1), 1655–1675. <https://doi.org/10.32604/cmc.2024.050713>
- OECD. (2019). *The future of work*.
- Óskarsdóttir, E., Donnelly, V., Turner-Cmucha, M., & Florian, L. (2020). Inclusive school leaders – their role in raising the achievement of all learners. *Journal of Educational Administration*, 58(5), 521–537. <https://doi.org/10.1108/JEA-10-2019-0190>
- Özkan, M., & Çakir, C. (2024). Culturally responsive leadership: Navigating diversity in education. In H. Özen & G. Polat (Eds.), *Cultural awareness and diversity management in contemporary education* (pp. 193–220). IGI Global. <https://doi.org/10.4018/979-8-3373-0402-1.ch005>
- Phillips, D., & Ochs, K. (2004). Researching policy borrowing: Some methodological challenges in comparative education. *British Educational Research Journal*, 30(6), 773–784.
- Ramlan Mustapha, & Ghazali Darussalam. (2018). *Aplikasi kaedah Fuzzy Delphi dalam penyelidikan sains sosial*. Penerbit Universiti Malaya.
- Raski, B., Eissner, A., Gummersbach, E., Wilm, S., Hempel, L., Dederichs, M., & Rotthoff, T. (2019). Implementation of online peer feedback for student self-reflection – First steps on the development of a feedback culture at a medical faculty. *GMS Journal for Medical Education*, 36(4). <https://doi.org/10.3205/zma001250>
- Robinson, V. (2011). *Student-centered leadership* (1st ed.). Jossey-Bass.
- Ruhullah, M. E., & Ushama, T. (2024). Tawhidic leadership in the modern world: Bridging Islamic governance with universal values for peace and integrity. *Al-Shajarah*, 29(2), 329–364. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85216453730&partnerID=40&md5=543c791969cbfff49c52b33c6783dedd>
- Saedah Siraj, Muhammad Ridhuan Tony Lim Abdullah, & Rozaini Muhamad Rozkee. (2020). *Pendekatan penyelidikan rekabentuk dan pembangunan: Aplikasi kepada penyelidikan pendidikan*. Penerbit UPSI.
- Salamun, H. (2013). An Islamic perspective on educational leadership. *Al-Shajarah*, 18(1), 103–129. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84904168402&partnerID=40&md5=badae4bc733434b948ec159827e28681>
- Saxena, S., & Parivara, S. A. (2025). Leveraging data analytics for enhanced academic outcomes: Strategies and applications. In *Impacts of AI on Students and Teachers in Education 5.0* (pp. 349–380). <https://doi.org/10.4018/979-8-3693-8191-5.ch014>
- Sergiovanni, T. J. (2007). *Rethinking leadership: A collection of articles*. Corwin Press.
- Sidek Mohd Noah, & Jamaludin Ahmad. (2005). *Pembinaan modul: Bagaimana membina modul latihan dan modul akademik*. Penerbit Universiti Putra Malaysia.
- Striepe, M., Clarke, S., & O'Donoghue, T. (2014). Spirituality, values and the school's ethos: Factors shaping leadership in a faith-based school. *Issues in Educational Research*, 24(1), 85–97. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84897860327&partnerID=40&md5=8df9d4f6ff4010e8222677e877b7fb7f>
- Stylianou, A., & Zembylas, M. (2019). Head teachers' spirituality and inclusive education: a perspective from critical realism. *International Journal of Inclusive Education*, 23(4), 419–435. <https://doi.org/10.1080/13603116.2018.1441336>
- Tubulingane, B. S. (2024). Resource management as a performance differentiator in higher education: A university case study. In *Innovation and resource management strategies for startups development* (pp. 176–196). <https://doi.org/10.4018/979-8-3693-2077-8.ch009>
- Wu, Q., Cormican, K., & Chen, G. (2020). A meta-analysis of shared leadership: Antecedents, consequences, and moderators. *Journal of Leadership and Organizational Studies*, 27(1), 49–64. <https://doi.org/10.1177/1548051818820862>