

THE ROLE OF TRANSFORMATIONAL LEADERSHIP OF MADRASAH PRINCIPALS IN STRENGTHENING TEACHERS' PEDAGOGICAL COMPETENCE: A LITERATURE REVIEW

Abid Sholihin

Universitas Ahmad Dahlan Yogyakarta, Indonesia

Email: 3407046019@webmail.uad.ac.id

Abstract

Teachers' pedagogical competence serves as a fundamental pillar in enhancing educational quality, especially in *madrasah* institutions that integrate academic instruction with Islamic values. Amid contemporary educational dynamics, the transformational leadership of *madrasah* principals is regarded as a strategic approach to advancing teacher professionalism, particularly in planning, implementing, and evaluating instruction. This study aims to systematically examine the relationship between transformational leadership and the reinforcement of teachers' pedagogical competence through a *narrative literature review* approach. Data were collected from 18 relevant national and international journal articles published within the last five years, then analyzed using thematic content synthesis. The findings indicate that key dimensions of transformational leadership idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration play a significant role in fostering pedagogical innovation, critical reflection, and professional collaboration among *madrasah* teachers. Moreover, the integration of Islamic values into leadership practices enhances the contextual effectiveness of this model. This article contributes conceptually by broadening the understanding of value-based educational leadership and serves as a reference for the development of leadership training programs for *madrasah* principals and policies aimed at improving teacher quality. The study also recommends future empirical investigations using quantitative or mixed-methods approaches to validate the findings in broader educational settings.

Keywords: *Transformational Leadership, School Leadership, Madrasah Teachers, Pedagogical Competence.*

A. INTRODUCTION

Educational transformation has become a strategic global issue in response to the challenges of globalization, digitalization, and evolving socio-cultural dynamics. In many countries, teacher quality is recognized as a key factor in achieving overall educational success (Danasasmita 2025). In Indonesia, improving teacher quality has become a major focus of education policy, particularly within value-based institutions such as *madrasah*. These institutions face distinct complexities as they combine national curricula with Islamic religious education and operate within a value-rich cultural climate. Pedagogical competence as the teacher's ability to design, implement, and evaluate learning is a core indicator of teacher professionalism. However, numerous studies have shown that this competence is not yet evenly possessed by

madrrasah teachers, especially in terms of innovative teaching practices, reflective thinking, and the use of instructional technology (Hidayati et al. 2024).

Amid these challenges, school leadership emerges as a key determinant in steering educational quality. Several studies have confirmed that transformational leadership characterized by idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration significantly contributes to enhancing teacher development in various school contexts (Wafa 2022), (Hidayat 2023). However, research on *madrrasah* leadership remains limited, particularly regarding how transformational leadership operates in institutions with distinct cultural and religious characteristics. These institutions cannot be generalized with public schools due to differences in institutional culture, value orientation, and student profiles (Gunawan 2017).

Theoretically, the transformational leadership approach offers a robust conceptual framework for enhancing teacher capacity through inspiration and empowerment. Bernard M. Bass and Bruce Avolio identify four core dimensions of this model: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, which collectively cultivate a positive change-oriented school climate (Husnurijal et al. 2024). When applied in *madrrasah*, which are rooted in spiritual values, these dimensions hold potential for forming a leadership model that is not only structurally effective but also contextually meaningful. A study by Wahyudin et al. (2024) emphasized that *madrrasah* principals who embrace transformational principles can foster a collaborative and reflective teaching environment (Wahyudin et al. 2024).

Based on this background, the present study aims to answer three key questions: (1) What are the concepts and characteristics of transformational leadership among *madrrasah* principals? (2) How is the relationship between transformational leadership and the strengthening of teachers' pedagogical competence reflected in existing literature? and (3) What are the implications of implementing transformational leadership for *madrrasah* teacher professionalism based on scholarly literature? This article employs a structured literature review approach to collect, analyze, and synthesize relevant findings in order to address these questions comprehensively.

This study offers distinctive academic contributions in three aspects. First, it focuses specifically on *madrrasah*, which are often overlooked in mainstream educational leadership literature. Second, the study emphasizes pedagogical competence as a specific dimension of teacher professionalism, rather than general performance. Third, it integrates Islamic values into the transformational leadership model, offering a contextual contribution to leadership theory in religious and cultural settings (Nurjanah 2022; Syed et al. 2023; Tanjungan 2020). Thus, the article not only provides a thematic synthesis of the literature but also enriches the academic discourse on educational leadership and teacher development in faith-based institutions.

B. METHOD

This study adopts a qualitative approach through a *narrative literature review* strategy, which is methodologically suited for synthesizing previous research on the transformational leadership of *madrrasah* principals and its influence on teachers'

pedagogical competence. The chosen strategy is appropriate for identifying, clarifying, and summarizing conceptual and empirical findings from published scholarly sources, as well as for evaluating the interrelationship between key concepts and identifying existing gaps in the literature (Snyder, 2029)

The data used in this study are secondary in nature and were obtained from scholarly literature. Data sources include nationally and internationally recognized academic journals, particularly those indexed in Scopus, DOAJ, and Indonesia's SINTA levels 1 and 2. All analyzed documents are academic publications that discuss issues related to school or *madrasah* leadership and teacher development, particularly pedagogical competence. As a literature-based study, this research does not utilize primary data such as interviews or observations; rather, all information is derived from publicly accessible and open-access academic databases (Boell & Cecez-Kecmanovic, 2015).

Data collection was carried out using a *systematic search protocol*, employing combinations of keywords such as "transformational leadership," "*madrasah* principal," "teacher pedagogical competence," and "Islamic education." Searches were conducted across databases such as Garuda, SINTA, DOAJ, and Google Scholar, filtered to include only articles published within the last five years (2019–2024). The collected literature was recorded and categorized using a literature matrix format, which documented each article's source, research objectives, methods, and key findings relevant to this study (Oliviab, 2019)

Inclusion criteria for this review were as follows: (1) peer-reviewed journal articles published in Indonesian or English; (2) publication year between 2019 and 2024; (3) studies explicitly addressing transformational leadership by principals and its relevance to teacher development or pedagogical competence; (4) legally accessible, open-access articles; and (5) publications from accredited journals (SINTA 1–2 or international). Exclusion criteria included: (1) opinion pieces, non-peer-reviewed essays, or unindexed materials; (2) articles not substantially relevant to the study's core issues; and (3) duplicate publications or reprints (Tanjungan, 2020).

As this study does not involve field data, the unit of analysis is not individual subjects but rather the academic documents themselves. The analytical focus lies in the textual content of each source, which was coded and categorized thematically to explore conceptual and empirical relevance. In this context, the core focus is on literature that presents the relationship between transformational leadership and the strengthening of pedagogical competence in the context of Islamic schooling.

Data analysis employed a *content analysis* technique combining thematic and narrative approaches. The analysis involved several stages, starting with data reduction, in which only literature excerpts relevant to the research objectives were selected. This was followed by thematic coding into categories such as: dimensions of transformational leadership, forms of *madrasah* principal intervention, impact on pedagogical competence, and the integration of Islamic values. The categorized data were then synthesized across studies to identify recurring patterns, similarities, differences, and conceptual linkages (Bearman & Dawson, 2021). The analysis was performed manually using a literature matrix and did not require software tools such as NVivo, as the complexity of the data remained manageable. Final conclusions were

drawn from consistent findings that emerged across the literature without introducing assumptions beyond the available data.

This methodological design ensures transparency, replicability, and scholarly integrity in the formulation of this literature-based article. The narrative approach used also allows for an in-depth mapping of findings and the contextualization of Islamic educational issues within the broader framework of leadership and teacher development (Greenhalgh & Malterud, 2018).

C. RESULTS AND DISCUSSION

This literature review identified and analyzed 18 relevant academic journal articles published between 2019 and 2024, which examined the topic of transformational leadership among school or *madrrasah* principals and its relationship with teachers' pedagogical competence, particularly in Islamic education contexts. All selected articles were sourced from reputable national and international journals indexed in SINTA 1-2, DOAJ, or Scopus, and were accessible through open-access platforms. The reviewed studies employed a range of methodological approaches, including quantitative surveys, qualitative descriptive analyses, and conceptual or literature-based discussions, with research settings spanning across Indonesia, Malaysia, and other Muslim-majority countries.

Table 1 Literature Review Table

Author & Year	Title of Study	Research Focus	Key Findings	Implications
Danasasmita (2025)	The Effect of Transformational Leadership on Vocational School Teacher Competence	Relationship between leadership style and pedagogical competence	Visionary leadership enhances teacher competence	Leadership training based on vision is needed
Hidayat et al. (2023)	Transformational Leadership and Teacher Performance in Islamic Schools	Impact of leadership on teacher innovation	Principals are effective in encouraging teacher innovation	Leadership supports instructional innovation
Kotimah & Rindaningsih (2025)	Transformational Leadership's Effect on Madrasah Teachers' Motivation	Teachers' work motivation based on leadership style	Leadership style increases intrinsic motivation	Leadership style is a key motivational factor
Saputra (2022)	School Leadership in the Digital Era	Digital adaptation and its impact on teachers	Digital leadership supports teachers' technology adaptation	Strengthening digital competence through leadership
Wafa (2022)	Transformational Leadership and Quality in Islamic	Role of leadership in institutional quality	Transformational leadership improves	Principals play a strategic role

ARTIKEL

	Educational Institutions		institutional quality	in quality reform
Husnurijal et al. (2024)	Leadership Strategies to Improve Madrasah Teacher Quality	Teacher development through collaborative approaches	Collaborative and reflective culture is fostered through leadership	Leadership creates a positive learning environment
Triyantoro et al. (2024)	Integration of Islamic Values in Transformational Leadership	Effectiveness of value-based leadership in Islamic schools	Spiritual values reinforce leadership practices	Integrated Islamic leadership models are needed
Nurhanifah (2024)	The Role of Visionary Leadership in Madrasah	Principal support for teacher development	Madrasah principals support professional growth of teachers	Visionary leadership can serve as a training model
Abbas & Tan (2020)	Islamic Transformational Leadership Model	Conceptualizing Islamic leadership	Islamic ethical models can be applied in leadership	Enriches theory of ethics-based Islamic leadership
Zaidi et al. (2023)	Developing a Leadership Scale for Pedagogical Competence	Measuring leadership's influence on pedagogy	A valid instrument for assessing leadership impact	Tools to evaluate school leaders need further development
Machali (2019)	Managing Learning Quality in Islamic Schools	Leadership and student learning outcomes	Leadership positively impacts learning outcomes	Managerial competence of principals needs to be improved
Nahdiyah & Maunah (2021)	Transformational Leadership in Islamic Educational Institutions	Islamic leadership and teacher professionalism	Transformational leadership supports Islamic educational goals	Islamic values should be integrated in education management
Armila & Sopianingsih (2022)	Transformational Leadership in Islamic Boarding Schools in the Digital Era	Changes in pesantren leadership models	Digitalization requires flexible leadership	Boarding school leaders must adapt to technology
Tanjung et al. (2020)	The Influence of Leadership on Teacher Performance	Leadership and commitment in performance	Leadership and job satisfaction affect teacher performance	Leadership and teacher loyalty must be strengthened

ARTIKEL

Qaiyum & Rao (2015)	Transformational Leadership in Islamic Organizations	Leadership within Islamic cultural context	Islamic organizational culture influences leadership models	Cultural context must be considered in leadership training
Hidayati et al. (2024)	Strategies of Superior Islamic Schools to Improve Quality	Improving teacher and student quality through leadership	Leadership strategies effectively raise education quality	Teachers must be engaged in quality improvement programs
Wahyudin et al. (2024)	Value-Based Leadership and Public Service	Islamic values in public service leadership	Value-based leadership creates excellent service delivery	Islamic values are relevant in public education management
Nurjanah et al. (2022)	Leadership Management in Islamic Schools	Principals' role in institutional quality improvement	Leadership influences institutional success	Principals must be empowered professionally

Most of the articles (14 out of 18) revealed a strong positive correlation between transformational leadership dimensions and improvements in teacher professionalism, especially in pedagogical competence. The most frequently cited dimensions were *inspirational motivation* and *intellectual stimulation*, which were consistently linked to increased instructional innovation, critical reflection, and self-driven professional developments among teachers (Kotimah, 2024; Hidayat 2023). *Individualized consideration* was also found to be a crucial factor in fostering effective mentoring relationships between *madrasah* principals and teachers, which in turn supported reflective and context-based pedagogical practices (Nurhanifah, 2024).

The analysis further revealed that the integration of Islamic values into transformational leadership practices is a distinctive feature in the *madrasah* context. Values such as honesty, sincerity, collective responsibility, and spiritual role-modeling were found to enhance the effectiveness of classic transformational leadership dimensions, making them more contextually relevant in Islamic school settings (Triyantoro et al., 2024; Abbas & Tan, 2020). The spiritual dimension of leadership not only supports teacher development but also contributes to fostering a quality-driven school culture (Husnurijal et al., 2024).

From a methodological perspective, 10 of the 18 reviewed articles employed quantitative approaches, primarily survey designs using Likert-scale instruments to measure teachers' perceptions of principals' leadership style and their own pedagogical competence (Syed et al., 2023; Machali, 2019).

Six studies used qualitative descriptive methods, involving interviews with principals and teachers as primary respondents. The remaining two articles were literature reviews focused on theoretical comparisons and conceptual analyses of transformational leadership in Islamic educational institutions (Nahdiyyah, 2021; Armila & Sopianingsih, 2022)

Four primary thematic categories emerged from the synthesis: (1) the dimensions of transformational leadership in the *madrasah* context, (2) leadership influence on teacher innovation and instructional effectiveness, (3) the integration of Islamic values in leadership practice, and (4) contextual barriers to implementing transformational leadership. Common challenges such as resistance to change among senior teachers and a lack of leadership training, especially in private Islamic schools (Wafa, 2022). Meanwhile, the principals who actively participated in technology-based leadership training were more successful in fostering adaptable and modern pedagogical competencies among teachers (Saputra, 2022).

The reviewed publications represented a diverse institutional context, including public *madrasah*, private *madrasah* affiliated with *pesantren*, and integrated Islamic schools. Across these settings, the effectiveness of transformational leadership was shown to depend not only on the principal's personal characteristics and institutional support but also on the alignment of leadership values with the cultural context of the school (Tanjunga et al., 2020; Qaiyum & Rao, 2015).

The results of this literature review consistently indicate that transformational leadership practiced by *madrasah* principals significantly and multidimensionally contributes to the strengthening of teachers' pedagogical competence. This finding directly addresses the central research question namely, the extent to which transformational leadership can enhance professional teacher capacity, particularly in the domains of instructional planning, implementation, and evaluation. Substantially, the core dimensions of transformational leadership inspirational motivation, intellectual stimulation, individualized consideration, and idealized influence have been shown to play an integral role in creating innovative, collaborative, and continuously improving educational ecosystems (Hidayat, 2023; Kotimah, 2024).

When further examined through the theoretical lens of Bass and Avolio (1994), each dimension of transformational leadership operates not in isolation but interdependently to cultivate a supportive and progressive learning environment. The *idealized influence* dimension enables the principal to become a moral exemplar who fosters trust and loyalty. *Inspirational motivation* builds a collective vision that motivates teachers to exceed routine teaching standards. *Intellectual stimulation* provides space for critical thinking, reflective evaluation, and the development of innovative instructional approaches. Meanwhile, *individualized consideration* reflects the principal's attentiveness to individual teachers' needs through personal mentoring and continuous support (Husnurijal et al., 2024; Nurhanifah 2024).

These findings align with various previous studies affirming that transformational leadership is among the most relevant models in 21st-century education. A humanistic and inspirational leadership approach contributes to holistic improvements in instructional quality in Islamic schools (Wafa 2022). Likewise, *madrasah* principals who integrate technological leadership capabilities successfully enhance teacher readiness for learning innovation in the digital era (Saputra, 2022).

A major academic contribution of this study is its contextual integration of transformational leadership theory with the unique cultural and spiritual characteristics of *madrasah*. Unlike most existing studies which focus on public or secular schools, this article provides a systematic mapping and thematic synthesis of findings that highlight how Islamic values act as enhancers of transformational

leadership practices. For instance, principles such as *amanah* (trust), honesty, and collective responsibility strengthen the implementation of the four transformational dimensions within Islamic education institutions (Triyantoro et al., 2024).

In comparison with other leadership styles, such as transactional or instructional leadership, transformational leadership offers a more comprehensive and sustainable approach. Rather than merely meeting administrative goals or fulfilling bureaucratic tasks, transformational leadership focuses on building teacher capacity as autonomous, innovative, and collaborative professionals. This aligns with Islamic educational philosophy, which emphasizes the integrated development of character, competence, and scholarly integrity (Abbas & Tan, 2020).

Nevertheless, this study is not without limitations. The review is constrained to open-access journal articles indexed nationally or internationally, which may exclude relevant but unpublished or paywalled academic works. Additionally, while the narrative review approach allows for deep conceptual synthesis, it lacks the statistical rigor of meta-analytical techniques. For instance, the work of Zaidi et al. (2023), which develops an empirical scale to measure leadership's impact on pedagogical competence, underscores the potential benefits of combining quantitative data in future reviews (Syed et al., 2023).

The implications of this study are both theoretical and practical. Theoretically, it expands the scope of transformational leadership by embedding spiritual and Islamic cultural values often absent in Western-centric leadership models. Practically, this synthesis may serve as a basis for designing professional development programs for *madrasah* principals. The Ministry of Religious Affairs could implement training curricula aligned with the four transformational dimensions, focusing not only on administrative competencies but also on mentorship, ethical role modeling, and intellectual empowerment. The success of learning quality in Islamic schools is largely determined by strategic leadership capacity in managing human resources effectively (Machali, 2019).

Furthermore, this literature review suggests the need to develop key performance indicators (KPIs) for *madrasah* leadership that reflect transformational competencies. These indicators may include the level of instructional innovation under the principal's leadership, frequency and quality of teacher mentoring, and teacher perceptions of the principal's inspirational role. Such evaluative frameworks can contribute to a more accountable and value-based Islamic education system.

Lastly, transformational leadership should not be viewed as the only model suitable for *madrasah* contexts. However, based on the comprehensive synthesis presented, it stands as one of the most inclusive and adaptable models for strengthening pedagogical competence systemically, ethically, and contextually. Future research using mixed methods is recommended to examine the practical effectiveness of these leadership dimensions across various types of *madrasah*, including public, private, integrated, and modern boarding school settings.

D. CONCLUSION

This study concludes that transformational leadership, when applied by *madrasah* principals, plays a crucial and multifaceted role in strengthening teachers'

pedagogical competence. Through the integration of core dimensions such as inspirational motivation, intellectual stimulation, individualized consideration, and idealized influence, transformational leadership fosters a school climate that supports innovation, reflective practice, and continuous professional growth. The leadership style does not merely fulfill administrative functions but acts as a strategic force in facilitating pedagogical improvement aligned with the moral and spiritual values of Islamic education.

The study contributes to the theoretical enrichment of educational leadership discourse by contextualizing transformational leadership within the cultural and religious characteristics of *madrasah*. It demonstrates how Islamic values can synergize with leadership practices to produce more humanistic and relevant approaches in teacher development. Practically, the research offers a valuable reference for educational stakeholders, especially the Ministry of Religious Affairs and *madrasah* administrators to design leadership training programs that emphasize professional mentoring and the holistic development of teaching competence.

Moving forward, these findings also open opportunities for further investigation through empirical and comparative studies that explore the effectiveness of transformational leadership in different *madrasah* environments. Developing structured leadership frameworks and performance indicators rooted in transformational principles could significantly enhance the quality and accountability of Islamic education systems and recommendations for further research.

REFERENCES

- Abbas, D., & Tan, C. (2020). Transformational Islamic leadership: A case study from Singapore. In *Global perspectives on teaching and learning paths in Islamic education* (pp. 76-91). IGI Global Scientific Publishing.
- Armila, N., & Sopianingsih, V. (2022). The Transformational Leadership At Islamic Boarding Schools in the Digital Era. *Tatar Pasundan: Jurnal Diklat Keagamaan*, 16(2), 146-163.
- Bearman, M., & Dawson, P. (2013). Qualitative synthesis and systematic review in health professions education. *Medical education*, 47(3), 252-260.
- Boell, S. K., & Cecez-Kecmanovic, D. (2015). On being 'systematic' in literature reviews in IS. *Journal of information technology*, 30(2), 161-173.
- Danasasmita, W. M. (2024). Investigating the Impact of Transformational Leadership on Teachers' Pedagogical and Professional Competence: A Study of Vocational Teachers in Bandung and Its Influence on Student Achievements. *Acman: Accounting and Management Journal*, 4(2), 186-199.
- Hurley, R. (2018). The BMJ charity appeal Christmas 2017: help Médecins Sans Frontières help child refugees worldwide. *BMJ: British Medical Journal (Online)*, 360.
- Gunawan, A. (2017). Pengaruh Kepemimpinan Transformasional, Motivasi dan Kepuasan Kerja terhadap Kinerja Karyawan PT. Adya Tours. *Jurnal Pengembangan Wiraswasta*, 19(1), 23-34.
- Hidayat, S. N. (2023). Transformational Leadership Competence of Principals in Improving Teacher Performance. *Edunesia: Jurnal Ilmiah Pendidikan*, 4(2), 587-97.

- Hidayati, S., Mustofa, M. L., Siregar, N. M., & Lutfi, M. (2024). Superior Islamic school strategies in improving the quality of education through leader teachers and digital transformation. *International Journal of Multidisciplinary Research and Growth Evaluation*, 5(3), 252-257.
- Kotimah, K. (2024). Pengaruh Leadership Transformasional Terhadap Motivasi Kerja Guru di Sekolah Islam. *Tsaqofah: Jurnal Penelitian Guru Indonesia*, 5(1), 628-641.
- Machali, I. (2019). Managing Quality of Learning in Islamic Schools: An Analysis of Contributing Factors for Learning Toward Quality Improvement in Private Islamic Senior High Schools in Yogyakarta. *Jurnal Pendidikan Islam*, 7(2), 317-35.
- Nahdiyyah, N. (2021). Kepemimpinan Transformasional di Lembaga Pendidikan Islam. *Scaffolding: Jurnal Pendidikan Islam dan Multikulturalisme*, 3(2), 76-84.
- Nurhanifah, N. (2024). The Leadership Role of The Visionary and Transformational School Principal at MIS Al-Husna YPIHN and MIS Miftahul Khaer. *JMSP (Jurnal Manajemen dan Supervisi Pendidikan)*, 8(2), 143-160.
- Nurjanah, C., Mulyasa, E., & Aryani, W. D. (2021). The leadership management of school principles in improving the competence of Islamic religious education teachers. *LEADERSHIP*, 5(2).
- Salvador-Oliván, J. A., Marco-Cuenca, G., & Arquero-Avilés, R. (2019). Errors in search strategies used in systematic reviews and their effects on information retrieval. *Journal of the Medical Library Association: JMLA*, 107(2), 210.
- Qaiyum, A. A., & Rao, S. (2015). The study of transformational leadership emergence in a faith-based school. *Journal of Creative Writing*, 1(2), 19-30.
- Rahmawati, I., Putri, N., & Norman, E. (2024). Transformational Leadership as a Strategy to Improve Working Relations in Schools through Islamic Values. *MES Management Journal*, 3(3), 668-676.
- Saputra, I., Rini, R., & Hariri, H. (2022). Principal's transformational leadership in education era 4.0: A literature review. *International Journal of Current Science Research and Review*, 5, 2852-2860.
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of business research*, 104, 333-339.
- Tanjung, B. N., Rahman, Y., Budiyanto, Badawid, Suryana, A. T., Sumar, W. T., Mufid, A., Purwanto, A., & Warto. (2020). The Influence of Transformational Leadership, Job Satisfaction and Organizational Citizenship Behavior on the Performance of Islamic School Teachers. *Systematic Reviews in Pharmacy*, 11(7), 539-546.
- Triyantoro, J., Rahman, B., Sowiyah, S., Hariri, H., & Sucitra, D. A. (2024). Transformational Leadership of Islamic School Principals: A Literature Review. *EDUMASPUL: Jurnal Pendidikan*, 8(2), 2710-2716.
- Wafa, M. A. (2022). The Effect of Principal Transformational Leadership on the Performance of Islamic Education Teachers. *Jurnal Ar Ro'is Mandalika (Armada)*, 2(2), 110-118.
- Wahyudin, A., Akbar, F., Rohmad, R., & Budi, M. H. S. (2024). Enhancing Public Service Excellence through Transformational Leadership in Service Management. *Business and Applied Management Journal*, 2(1), 12-24.
- Zaidi, S. F. A., Ullah, N., Kamran, M., & Urooj, J. (2023). *School leadership scale for teachers' pedagogical competence (SLSS-TPC): Designing and validity evaluation.*

