

# Enhancing the Quality of Education through Effective Governance in Higher Education

**Bannaga Taha Al-Zubair Hussien\*, Saifaldin Idris Onia**

University of Khartoum, Sudan

\*Corresponding Author: [banagataha@gmail.com](mailto:banagataha@gmail.com)

<http://doi.org/10.33650/ijess.v3i2.8908>

Received: June 2024, Revised: November 2024, Accepted: December 2024

## Abstract:

*This research focuses on applying governance principles in the faculties of education of Arab universities, highlighting three main elements: information disclosure, accountability in performance evaluation, and digitization of administrative data management. This research used a qualitative method with a case study. Data were collected through in-depth interviews, observation, and documentation, then analyzed using data reduction, display, and verification techniques. The results showed that information disclosure creates an inclusive and collaborative work environment, increases trust, and encourages active participation in decision-making. Accountability in performance evaluation is implemented through periodic reports that include achievements and recommendations for improvement, strengthening collective responsibility and transparency. Meanwhile, digitization of data management is still at an early stage, with barriers such as a lack of archiving standards and adequate technological infrastructure. Nonetheless, efforts to increase digitization are beginning to show positive results in administrative efficiency. This research significantly contributes to exploring the literature on higher education governance, particularly in the Arab region, by affirming the importance of integrating information disclosure, accountability, and digitization. The implication is that universities must adopt a holistic governance approach to improve management quality and global competitiveness. Further research is recommended to explore a broader context and test the generalizability of these findings.*

**Key Words:** *Accountability, Governance Principles, Performance Evaluation, Quality*

*Please cite this article in APA style as:*

Al-Zubair Hussien, B. T., Onia, S. I. (2024). Enhancing the Quality of Education through Effective Governance in Higher Education. *Indonesian Journal of Education and Social Studies*, 3(2), 73-85.

## INTRODUCTION

In recent decades, governance in higher education institutions has become increasingly important as expectations for transparency, accountability, and management effectiveness have increased (Beerkens, 2022; Kallio et al., 2021; Liu & van der Sijde, 2021). Faculties of education in universities, especially in the Arab region, have a significant responsibility in preparing a generation of competent and adaptive educators for global change (Giudice et al., 2021; Hamwy et al., 2023; Radzi et al., 2022). However, social reality shows that many faculties of education still face challenges in implementing sound governance principles (Annahar et al., 2023; Khulel, 2021; Yang et al., 2023). Limitations in

information disclosure, lack of accountability in performance evaluation, and disorganized administrative systems are the main obstacles to achieving institutional goals (Alsaid & Ambilichu, 2021; Ding et al., 2022; Nguyen et al., 2023). These conditions not only affect administrative efficiency but also impact motivation and collaboration among faculty members. Therefore, understanding how governance is implemented in education faculties is urgently needed to address these societal challenges.

A literature review shows that effective governance is a fundamental element in ensuring the sustainability and quality of higher education, especially in the era of global competition. Governance principles such as transparency, accountability, and participation can create more adaptive institutions responsive to changing demands. According to Lee (2022), transparency allows institutions to build trust between internal and external stakeholders, thus creating a more productive working environment. On the other hand, accountability provides a clear framework for assessing program success and ensuring collective responsibility. Zheng et al. (2022) assert that accountability in performance evaluation improves operational efficiency and becomes a strategic tool to strengthen collaboration between individuals within the institution. However, the literature notes that these principles are often only formally adopted without real implementation integrated into organizational structure and culture, particularly in the Arab region.

In the Arab region, research shows that higher education institutions face a significant gap between governance policies and their implementation in practice. Witteborn (2022) identified the lack of standardized administrative data management and digitization as one of the main obstacles to creating a modern governance system. Digitalization, which is considered a key element in data management and administrative efficiency (Bany et al., 2022; Niu et al., 2021; Zaabar et al., 2021), is often hampered by inadequate technological infrastructure and lack of staff training. Moreover, the literature also notes that cultural differences and organizational structures in Arab institutions provide additional challenges in adopting effective governance models. Thus, there is an urgent need to delve deeper into how governance principles can be contextually applied in education faculties, particularly through integrating digital strategies, performance evaluation accountability, and information transparency to address local challenges while enhancing global competitiveness.

This study explores the application of governance principles in faculties of education in Arab universities, focusing on three main aspects: information disclosure, accountability in performance evaluation, and digitization of administrative data management. The research is designed to answer the main questions: How are these three aspects applied in practice, and what is their impact on faculty management's effectiveness? In addition, the research also aims to identify the challenges faced in the implementation process and provide recommendations to overcome these obstacles. By understanding these

dynamics, this research seeks to provide a more comprehensive insight into efforts to improve the quality of governance in higher education institutions.

This study assumes that implementing information disclosure, accountability, and digitalization significantly influences the effectiveness of governance in the faculty of education. Information disclosure is assumed to increase faculty members' trust and active participation in decision-making. Accountability in performance evaluation is believed to create better control mechanisms and encourage continuous improvement. Meanwhile, digitization of data management is a solution to overcome limited access to information and administrative efficiency. The provisional answer proposed is that effective governance requires the integration of these three elements in a holistic manner. By adopting this approach, education faculties in Arab universities can improve their management quality and face global challenges more adaptively and responsively.

## **RESEARCH METHOD**

This research focuses on a unit of analysis that includes faculties of education in Arab universities as the study site. The cases raised were the implementation of governance through information disclosure, accountability for performance evaluation, and administrative data management. This research uses a qualitative design with an in-depth case study approach. This approach was chosen because it can explore the process, context, and dynamics of applying governance principles in educational institutions (Leo et al., 2021; Renjith et al., 2021; Song et al., 2024). Case studies provide flexibility to analyze specific phenomena relevant to the context of university governance (Campbell et al., 2021; Miles et al., 2020; Monaro et al., 2022). The main focus of this research is to explore how governance practices are implemented in reality and how these factors impact the effectiveness of educational faculty management.

The sources of information in this study involved respondents from three main groups: faculty leaders, administrative staff, and lecturers. Faculty leaders provide insight into policies and management strategies. Administrative staff are the primary information source for policy implementation, performance evaluation, and data management. Lecturers provide perspectives on the influence of governance on academic activities. Respondents were selected purposively, with the main criterion being their direct involvement in the governance process. Interviews were conducted with nine interviewees, three from each group. The interviewees' privacy was maintained through the assignment of unique abbreviation-based codes. For example, faculty leaders were coded with "PF," administrative staff with "SA," and lecturers with "DS." This approach ensured that the data collected was diverse, relevant, and integrated with the research focus.

Data were collected through three main techniques: in-depth interviews, direct observation, and documentation analysis. Interviews were used to extract

information about respondents' experiences and perceptions, while direct observation allowed researchers to understand the practice of governance in the faculty environment. Documentation such as annual reports and meeting protocols were used to complement the data obtained. The collected data were analyzed using the reduction, display, and verification approaches. The reduction process was conducted to simplify and select relevant data, while data display was used to organize the findings systematically in tables and diagrams. Data verification was conducted through triangulation of the three data sources.

## **RESULT AND DISCUSSION**

### **Result**

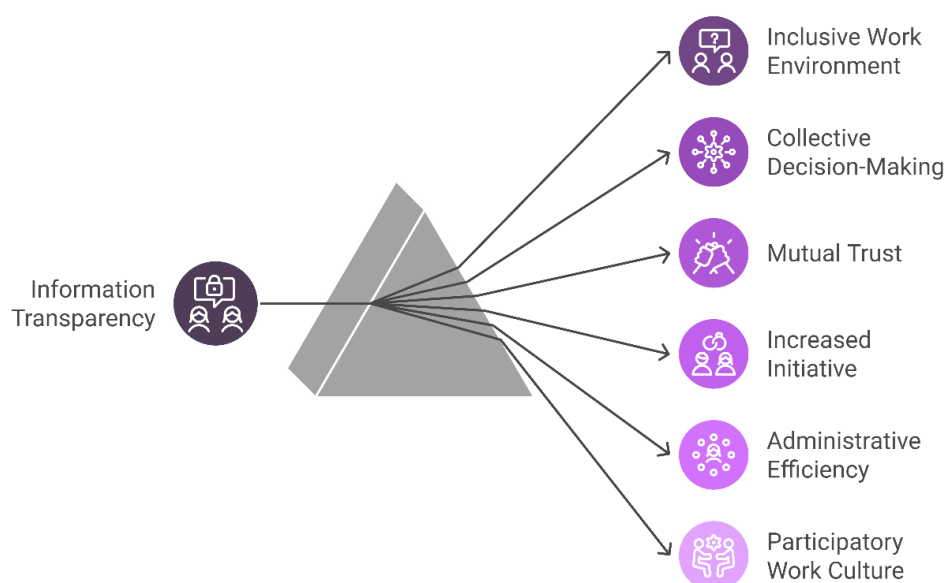
#### **Information Disclosure in the Management**

This finding suggests that information disclosure in the education faculty creates an inclusive work environment and supports collective decision-making. Based on observations in several faculty meetings, faculty leaders regularly share information related to budget, performance evaluation, and strategic policies. In one session, leaders presented data on the allocation of research funds, which was positively received by staff, demonstrating transparency as a measure that strengthens mutual trust. Observations also showed that faculty members were more actively involved when policies were communicated, including providing input on the division of tasks in specific projects. This information disclosure also encouraged staff to take initiative in their tasks, as seen by the increased number of suggestions made during internal discussions. This fact suggests that adequate access to information increases administrative efficiency and improves social interaction in the work environment.

Information disclosure serves as a communication mechanism and a tool to create fairness and trust in faculty management. Based on observations, one of the key moments occurs when faculty leaders explain in detail the use of funds in community service programs. Detailed data accompany this explanation of the program's previous achievements, which helps staff understand the real impact of their contributions. In addition, during semesterly evaluation meetings, it was seen that transparency in the presentation of evaluation results motivated staff to contribute more, with one of the participants proposing a new system to monitor student learning outcomes. Clarity of information also creates a constructive dialogue between leaders and staff, where differences in views are more easily managed through data-driven discussions. Thus, this openness plays a role in improving the quality of decisions and creating a participatory work culture.

The following figure visualizes the multifaceted impact of information disclosure in supporting education faculty governance.

## The Multifaceted Impact of Information Transparency



**Figure 1. Multifaceted Impact of Information Disclosure**

The figure shows that information disclosure in education faculties creates a more open and collaborative work environment. Observations show that when information about policies and budgets is conveyed, staff feel more confident and encouraged to participate in decision-making. In addition, delivering detailed and relevant information helps create a productive dialog between faculty leaders and staff members, thus strengthening mutual trust between all parties.

### **Accountability in Performance Evaluation**

Interviews with staff and leaders showed that accountability is key to creating a credible and effective evaluation system. Interviewees stated that performance evaluations are conducted in a structured manner through periodic reports that include achievements and obstacles over a certain period. One interviewee stated, "Regular evaluation helps us understand our work priorities to improve our strategies" (I\_AN\_2023). Other interviews showed that performance reports are used to evaluate individuals and assess the success of ongoing programs. In one example, the evaluation showed that resource allocation in one of the teaching programs needed to be adjusted to make it more efficient. This indicates that accountability in evaluation is not only about measuring success but also about providing a basis for continuous improvement.

Interview data further revealed that accountability in faculty performance evaluation is implemented by involving all institution elements. One interviewee stated, "With regular evaluations, every individual feels they have the same responsibility to ensure the program runs well" (I\_BN\_2023). The evaluation process involves preparing a detailed report that includes indicators of success, obstacles encountered, and recommendations for improvement. Other

interviews indicated that evaluations are also used to facilitate discussions between leaders and staff, allowing all parties to provide input. One interviewee noted, "When evaluation results are presented transparently, we feel more valued, as our views are taken into account in decision-making" (I\_CM\_2023). The interviews were then subjected to thematic analysis, as shown in Table 2.

**Table 2. Research Thematic Analysis**

Respondents	Coding	Category	Theme
I_AN_2023	Evaluation is conducted regularly through periodic reports	Evaluation Structure	Accountability through a structured evaluation
I_BN_2023	Every individual feels equally responsible	Collective Responsibility	Increased sense of collective responsibility
I_BN_2023	The report includes success indicators and recommendations	Evaluation Process	Improved quality of the evaluation process
I_CM_2023	Transparent evaluation results increase the sense of being valued	Transparency and Awards	Strengthening trust through transparency

The thematic analysis results show that accountability in performance evaluation in education faculties is reflected through implementing a systematic evaluation structure, collective responsibility, a comprehensive evaluation process, and transparency in delivering results. Periodic evaluations with detailed reports enable consistent monitoring of achievements and provide a basis for strategic decision-making. In addition, the involvement of all elements of the faculty creates a sense of shared responsibility, which strengthens collaboration to achieve institutional goals. Evaluation processes that include indicators of success and recommendations highlight achievements and guide continuous improvement. Transparency in the delivery of evaluation results strengthens trust, creates a sense of being valued, and motivates all parties to improve performance, thus creating a more effective and inclusive work ecosystem.

Accountability implemented through performance evaluation provides a clear framework for all faculty members to understand their responsibilities. Interviews show that evaluations increase transparency and provide space for all parties to contribute to improving work processes. It is an important tool to ensure that the faculty stays on track with its strategic objectives.

### **Administration and Data Management System**

The results showed that data management and administration in the education faculty still face significant challenges. Based on interviews and document analysis, it was revealed that manual processes still dominate the administrative system in the faculty. One of the documents analyzed, the faculty's annual report, showed that most important archives, such as meeting minutes and financial reports, are still stored in printed format. This leads to limitations in quick data access when needed for strategic decision-making. One

administrative staff noted, "We often face obstacles when searching for old archives due to the unstructured storage format" (I\_AN\_2023).

Internal documentation, such as meeting protocols, also shows that the current archiving process lacks consistent standards. For example, last year's monthly meeting protocols showed differences in recording formats from one session to another. This indicates a lack of standardized administrative guidelines. In addition, the institution's performance evaluation document revealed that only about 40% of faculty archives have been digitized. Analysis of the document showed that the digitized archive includes data related to lecture schedules and some academic documents, while strategic data such as budget reports and long-term planning are still in physical format. This inconsistency creates obstacles for the faculty in designing an efficient working system. One interviewee mentioned, "When needed, we often have to go through piles of physical documents to look for certain decisions" (I\_BN\_2023).

Based on document analysis and interviews, data management in the education faculty currently faces challenges due to a lack of archive digitization and document management standards. Documents such as annual reports and meeting protocols show that most data is still stored in manual format, which slows down the information access process. There are efforts to start digitization, although it is still in the early stages of implementation.

## **Discussion**

Information disclosure, as found in this study, has significant implications for the management of education faculties, particularly in creating an inclusive work environment and supporting collective decision-making. The findings suggest that clear information sharing on budgets, strategic policies, and performance evaluation increases trust among faculty members and encourages staff to take the initiative in their duties. This aligns with the study of Solana-González et al. (2021), which highlights that information transparency is one of the key pillars of successful university governance. Adequate transparency enables productive two-way communication, which impacts administrative efficiency and better social interaction. These findings suggest that information disclosure should be viewed as a fundamental element, not only as a communication tool but also as a strategic approach to managing higher education institutions.

The correlation between information disclosure and faculty management can be explained through organizational participation theory. In previous literature, Reid et al. (2024) explained that information disclosure provides a foundation for creating trust and collaboration among institutional stakeholders. This is reflected in the results of this study, where open information motivates faculty members to contribute more to decision-making. For example, detailed explanations of budget utilization create a sense of collective ownership of faculty success. In contrast to previous findings that suggest resistance to

transparency due to conflicts of interest (Li et al., 2021), this study shows that structured and relevant transparency can reduce conflicts and strengthen working relationships. This correlation suggests that information disclosure is not only conceptually important but has practical implications for improving institutional performance.

The results of this study regarding accountability in performance evaluation show that periodic evaluations conducted through detailed reports provide a strong basis for strategic decision-making. This finding supports the study of Durlak et al. (2022), which shows that accountable evaluation not only assesses individual achievements but also guides collective management. Involving all institution elements in the evaluation process creates a sense of shared responsibility, which enhances collaboration and motivation. Evaluations that include indicators of success, barriers, and recommendations allow faculty to assess the effectiveness of their strategies, providing a basis for continuous improvement. These implications emphasize that accountability in performance evaluation is a component that cannot be ignored in efforts to improve the quality of governance.

The importance of accountability in performance evaluation can be explained through the relationship between evaluation and institutional trust. In previous research, Gulati and Wohlgezogen (2023) noted that accountable evaluations create stakeholder trust, increasing work motivation. This is relevant to the findings of this study, where transparency in evaluation increases the sense of being valued among staff and leaders. Discussions about evaluation results, which involve different elements of the faculty, create a constructive dialog that allows all parties to contribute effectively. This correlation suggests that accountability in evaluation is not just about assessing results but also about creating mechanisms for broader participation. This process helps to reduce uncertainty and strengthen working relationships in the academic environment.

The implication of data management and administration in education faculties is the need for structured digitization to overcome existing barriers. This finding supports the study (Hawkins, 2022), which showed that digitizing archives accelerates access to information and increases transparency and administrative efficiency. In the context of this study, inconsistencies in documentation formats hamper work processes, especially in strategic decision-making. Archival digitization can provide a solution to ensure data is easily accessible, organized, and secure. In addition, consistent document management standards will help create better operational efficiency, support data-driven decision-making, and improve educational institutions' management quality.

Why archive digitization is an urgent need can be explained through the role of technology in modern governance. In Khulel's (2021) research, digitization was cited as a strategic step in creating a transparent and responsive administrative system. The results of this study support that view, where the lack of digitization hinders quick access to information and creates an additional



burden for administrative staff. However, the early attempts at digitization found in this study show that institutions are beginning to realize the importance of technology in supporting data management. The correlation between digitization and operational efficiency clarifies that technology-based data management is important for creating adaptive and sustainable governance in education faculties.

## **CONCLUSION**

The study concluded that information disclosure, performance evaluation accountability, and data management digitization are the three main pillars of improving governance in education faculties. Information disclosure is proven to create an inclusive and collaborative work environment, promote trust, and increase the active participation of staff in decision-making. Accountability in performance evaluation serves as a mechanism that reinforces a sense of collective responsibility, provides strategic guidance for continuous improvement, and creates transparency that motivates all parties. In addition, findings on the importance of digitizing data management highlight the need for technological infrastructure to support efficiency and responsiveness in faculty administration. This research provides new insights by confirming that good governance results from administrative structures and integrating practices that promote engagement, accountability, and technology-based innovation.

The significant contribution of this study lies in integrating modern governance theory and its application in the context of education faculties in the Arab world. This study strengthens the literature by providing relevant empirical evidence, particularly regarding the benefits of information disclosure and accountability in performance evaluation. In addition, the results expand the discussion on the importance of digitalization in academic administration, providing a new perspective relevant to the digital transformation era. However, this study has limitations on geographical scope and specific institutions, which may not fully represent variations in cultural or structural contexts in other regions. Therefore, further research is needed to explore factors such as gender differences, institutional variations, and age and to test the generalizability of these findings in a broader context. Future research could also explore more diverse methodological approaches, such as longitudinal surveys or experiments, to provide a more comprehensive and in-depth picture of effective education governance.

## **ACKNOWLEDGMENT**

The authors thank the University of Khartoum for its support and resources. Thanks to our colleagues, experts, and participants for their valuable feedback and time. We also appreciate the encouragement from our families throughout this research.

## REFERENCES

- Alsaid, L. A. Z. A., & Ambilichu, C. A. (2021). The Influence of Institutional Pressures on the Implementation of a Performance Measurement System in an Egyptian Social Enterprise. *Qualitative Research in Accounting and Management*, 18(1), 53–83. <https://doi.org/10.1108/QRAM-03-2020-0027>
- Annahar, N., Widianingsih, I., Muhtar, E. A., & Paskarina, C. (2023). The Road to Inclusive Decentralized Village Governance in Indonesia. *Sustainability (Switzerland)*, 15(11), 8616. <https://doi.org/10.3390/su15118616>
- Bany Mohammad, A., Al-Okaily, M., Al-Majali, M., & Masa'deh, R. (2022). Business Intelligence and Analytics (BIA) Usage in the Banking Industry Sector: An Application of the TOE Framework. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(4), 189. <https://doi.org/10.3390/joitmc8040189>
- Beerkens, M. (2022). An Evolution of Performance Data in Higher Education Governance: A Path Towards a 'Big Data' Era? *Quality in Higher Education*, 28(1), 29–49. <https://doi.org/10.1080/13538322.2021.1951451>
- Campbell, K. A., Orr, E., Durepos, P., Nguyen, L., Li, L., Whitmore, C., Gehrke, P., Graham, L., & Jack, S. M. (2021). Reflexive Thematic Analysis for Applied Qualitative Health Research. *The Qualitative Report*, 26(6), 2011–2028.
- Ding, X., Ye, L., Yang, Y., Efimova, O., Steblyanskaya, A., & Zhang, J. (2022). The Impact Mechanism of Environmental Information Disclosure on Corporate Sustainability Performance—Micro-Evidence from China. *Sustainability (Switzerland)*, 14(19), 12366. <https://doi.org/10.3390/su141912366>
- Durlak, J. A., Mahoney, J. L., & Boyle, A. E. (2022). What We Know, and What We Need to Find Out About Universal, School-Based Social and Emotional Learning Programs for Children and Adolescents: A Review of Meta-Analyses and Directions for Future Research. *Psychological Bulletin*, 148(11–12), 765–782. <https://doi.org/10.1037/bul0000383>
- Giudice, L. C., Llamas-Clark, E. F., DeNicola, N., Pandipati, S., Zlatnik, M. G., Decena, D. C. D., Woodruff, T. J., & Conry, J. A. (2021). Climate Change, Women's Health, and the Role of Obstetricians and Gynecologists in Leadership. *International Journal of Gynecology and Obstetrics*, 155(3), 345–356. <https://doi.org/10.1002/ijgo.13958>
- Gulati, R., & Wohlgezogen, F. (2023). Can Purpose Foster Stakeholder Trust in Corporations? *Strategy Science*, 8(2), 270–287. <https://doi.org/10.1287/stsc.2023.0196>
- Hamwy, N., Bruder, J., Sellami, A., & Romanowski, M. H. (2023). Challenges to Teachers Implementing Sustainable Development Goals Frameworks in Qatar. *Sustainability (Switzerland)*, 15(15), 11479. <https://doi.org/10.3390/su151511479>

- Hawkins, A. (2022). Archives, Linked Data and the Digital Humanities: Increasing Access to Digitised and Born-Digital Archives via the Semantic Web. *Archival Science*, 22(3), 319–344. <https://doi.org/10.1007/s10502-021-09381-0>
- Kallio, T. J., Kallio, K. M., Huusko, M., Pyykkö, R., & Kivistö, J. (2021). Balancing Between Accountability and Autonomy: The Impact and Relevance of Public Steering Mechanisms Within Higher Education. *Journal of Public Budgeting, Accounting and Financial Management*, 34(6), 46–68. <https://doi.org/10.1108/JPBAFM-10-2020-0177>
- Khulel, B. (2021). Teaching English for Young Learners in Rural Area: Teachers' Challenges. *Lingua*, 17(2), 115–130. <https://doi.org/10.34005/lingua.v17i2.1558>
- Lee, S. (2022). When Tensions Become Opportunities: Managing Accountability Demands in Collaborative Governance. *Journal of Public Administration Research and Theory*, 32(4), 641–655. <https://doi.org/10.1093/jopart/muab051>
- Leo, S., Alsharari, N. M., Abbas, J., & Alshurideh, M. T. (2021). From Offline to Online Learning: A Qualitative Study of Challenges and Opportunities as a Response to the COVID-19 Pandemic in the UAE Higher Education Context. *Studies in Systems, Decision and Control*, 334, 203–217. [https://doi.org/10.1007/978-3-030-67151-8\\_12](https://doi.org/10.1007/978-3-030-67151-8_12)
- Li, J. Y., Sun, R., Tao, W., & Lee, Y. (2021). Employee Coping With Organizational Change in the Face of a Pandemic: The Role of Transparent Internal Communication. *Public Relations Review*, 47(1), 101984. <https://doi.org/10.1016/j.pubrev.2020.101984>
- Liu, S., & van der Sijde, P. C. (2021). Towards the Entrepreneurial University 2.0: Reaffirming the Responsibility of Universities in the Era of Accountability. *Sustainability (Switzerland)*, 13(6), 3073. <https://doi.org/10.3390/su13063073>
- Liu, S., & van der Sijde, P. C. (2021). Towards the Entrepreneurial University 2.0: Reaffirming the Responsibility of Universities in the Era of Accountability. *Sustainability (Switzerland)*, 13(6), 3073. <https://doi.org/10.3390/su13063073>
- Ma'arif, A., Puspita Aji, G., & Praswara, S. (2022). The Influence of Motivation, Leadership, and Competence on Teacher Performance. *Golden Ratio of Data in Summary*, 2(2), 61–76. <https://doi.org/10.52970/grdis.v2i2.273>
- Miles, M., Huberman, M., & Saldaña, J. (2020). *Qualitative Data Analysis: A Methods Sourcebook Fourth Edition*. Sage Publications, Inc.
- Monaro, S., Gullick, J., & West, S. (2022). Qualitative Data Analysis for Health Research: A Step-by-Step Example of Phenomenological Interpretation. *Qualitative Report*, 27(4), 1040–1057. <https://doi.org/10.46743/2160-3715/2022.5249>
- Muneeb, A., Ghous, M. G., & Nizami, H. (2023). The Challenges and Opportunities for Private Schools in Kabul. *Eximia*, 11, 98–114. <https://doi.org/10.47577/eximia.v11i1.285>

- Nadya, H. F. M., Baharun, H., Hefniy, H., Tohet, M., & Zaini, A. W. (2023). Teacher Assistance in the Development of Merdeka Curriculum Learning Devices. *Communautaire: Journal of Community Service*, 2(2), 98–107. <https://doi.org/10.61987/communautaire.v2i2.257>
- Nguyen, O. T. K., Liu, L. Y. J., Haslam, J., & McLaren, J. (2023). The Moderating Effect of Perceived Environmental Uncertainty and Task Uncertainty on the Relationship Between Performance Management System Practices and Organizational Performance: Evidence From Vietnam. *Production Planning and Control*, 34(5), 423–441. <https://doi.org/10.1080/09537287.2021.1934586>
- Niu, Y., Ying, L., Yang, J., Bao, M., & Sivaparthipan, C. B. (2021). Organizational Business Intelligence and Decision Making Using Big Data Analytics. *Information Processing and Management*, 58(6), 102725. <https://doi.org/10.1016/j.ipm.2021.102725>
- Pyo, J., Lee, W., Choi, E. Y., Jang, S. G., & Ock, M. (2023). Qualitative Research in Healthcare: Necessity and Characteristics. *Journal of Preventive Medicine and Public Health*, 56(1), 12–20. <https://doi.org/10.3961/jpmp.22.451>
- Radzi, S. N. F., Osman, K., & Said, M. N. M. (2022). Progressing Towards Global Citizenship and a Sustainable Nation: Pillars of Climate Change Education and Actions. *Sustainability (Switzerland)*, 14(9), 5163. <https://doi.org/10.3390/su14095163>
- Reid, A., Ringel, E., & Pendleton, S. M. (2024). Transparency Reports as CSR Reports: Motives, Stakeholders, and Strategies. *Social Responsibility Journal*, 20(1), 81–107. <https://doi.org/10.1108/SRJ-03-2023-0134>
- Renjith, V., Yesodharan, R., Noronha, J., Ladd, E., & George, A. (2021). Qualitative Methods in Health Care Research. *International Journal of Preventive Medicine*, 12(1), 20. [https://doi.org/10.4103/ijpvm.IJPVM\\_321\\_19](https://doi.org/10.4103/ijpvm.IJPVM_321_19)
- Sandoval, M., Muñoz, Y., & Márquez, C. (2021). Supporting Schools in Their Journey to Inclusive Education: Review of Guides and Tools. *Support for Learning*, 36(1), 20–42. <https://doi.org/10.1111/1467-9604.12337>
- Silva, C., Pereira, F., & Amorim, J. P. (2023). The Integration of Indigenous Knowledge in School: A Systematic Review. *Compare*, 54(7), 1210–1228. <https://doi.org/10.1080/03057925.2023.2184200>
- Solana-González, P., Vanti, A. A., García Lorenzo, M. M., & Bello Pérez, R. E. (2021). Data Mining to Assess Organizational Transparency Across Technology Processes: An Approach From IT Governance and Knowledge Management. *Sustainability (Switzerland)*, 13(18), 10130. <https://doi.org/10.3390/su131810130>
- Song, X., Wang, Z., Meng, X., & Liu, M. (2024). A Qualitative Study on University Students' Restorative Experience of the Library Space Environment. *Buildings*, 14(6), 1641.
- Witteborn, S. (2022). Digitalization, Digitization and Datafication: The “Three D” Transformation of Forced Migration Management. *Communication, Culture and Critique*, 15(2), 157–175. <https://doi.org/10.1093/ccc/tcac007>

- Yang, X., Zhu, X., & Chen, D. (2023). Discourses Regarding Education Governance in the Digital Age at K-12 Level: Possibilities, Risks, and Strategies. *Teaching and Teacher Education*, 132, 104261. <https://doi.org/10.1016/j.tate.2023.104261>
- Zaabar, B., Cheikhrouhou, O., Jamil, F., Ammi, M., & Abid, M. (2021). HealthBlock: A Secure Blockchain-Based Healthcare Data Management System. *Computer Networks*, 200, 108500. <https://doi.org/10.1016/j.comnet.2021.108500>
- Zaini, A. W., & Hamidah, T. (2023). Transformation of Traditional Values to the Phenomenon of Santri Courtship in the Digital Era. *Jurnal Islam Nusantara*, 7(2), 211. <https://doi.org/10.33852/jurnalnu.v7i2.508>
- Zheng, Y., Rashid, M. H. U., Siddik, A. B., Wei, W., & Hossain, S. Z. (2022). Corporate Social Responsibility Disclosure and Firm's Productivity: Evidence From the Banking Industry in Bangladesh. *Sustainability (Switzerland)*, 14(10), 6237. <https://doi.org/10.3390/su14106237>