



JPPLG

JOURNAL OF PUBLIC POLICY AND LOCAL
GOVERNMENT



Alamat: Greend River View, Jl. Bouvardia No. 8
Makassar

Literature Review: Government Policies on the Development of Teaching Personnel and Educational Institutions

Sitti Hardiyanti Arhas¹, Wahira²

^{1,2}Universitas Negeri Makassar

Correspondence Author: hardiyantiarhas@unm.ac.id

ABSTRACT

This literature review analyzes the impact of government policies on the improvement of teaching staff and educational institutions in developing countries. This study examines the impact of strategic government actions on the quality of education by drawing on a wealth of academic resources. Studies show that effective teacher development requires consistent investment in professional development, cohesive policy frameworks, and institutional capacity building. Additionally, utilizing technology and adhering to international educational standards is becoming increasingly important. However, these things must be carefully adjusted to fit the local school to be effective. The review emphasizes that context-sensitive, inclusive, and equitable policy approaches are more effective in addressing the specific problems facing education systems in developing countries. This assessment uses a qualitative method. It also reveals that the implementation of current policies has shortcomings, including the need for an equitable distribution of resources and significant stakeholder involvement. These findings underscore the importance of developing educational strategies that align with global trends by focusing on addressing local contexts and needs. This review supports adaptive and collaborative governance models to facilitate the development of teaching capacity and sustainable institutional development in the evolving educational context.

Keywords: government policies, development, education, teaching personnel

INTRODUCTION

There are numerous challenges in developing countries that make it difficult to create an effective environment for teaching and learning. The move toward government involvement in education was a pivotal moment in the history of education reform, as developing countries faced economic problems, cultural differences, and technological advances. The focus of this discussion is the impact of government policies on the growth of educators and educational institutions. These dynamics necessitate a comprehensive evaluation of the current framework, underscoring the importance of refining these policies to enhance academic outcomes.

Engagement with the literature shows that successful teacher development programs are essentially tied to well-defined government priorities and strategic investments. Countries with cohesive education policies show faster improvements in teaching effectiveness and institutional performance (Arhas & Haryoko, 2024; Jamal & Wahira, 2024; Sulastris et al., 2024). Research has shown that there is a relationship between how resources are distributed and teacher quality (Akib et al., 2024; Darwis & Haerul, 2024; Hasyim et al., 2024). In addition, issues such as professional development, retaining teachers, and building institutional capacity emerged, demonstrating how complex such approaches are for long-term advancement in education (Destafiana et al., 2024; Saleh et al., 2021; Tiwi et al., 2024). Although many researchers agree on these important areas, the literature often overlooks the unique social and cultural conditions of developing countries, which limits the applicability of the results. There is a growing need for

situationally relevant policies, as well as a recognized need for a comprehensive framework that incorporates local knowledge (Arhas et al., 2022; Koohang et al., 2023; Mustafa et al., 2023). Additionally, people observe how technology influences teaching methods and institutional practices (Arhas et al., 2023; Maulidya et al., 2024; Wahira et al., 2024). However, there is limited research on how government policies can effectively utilize digital tools in traditional classrooms (Kamalov et al., 2023).

Often, the current literature does not adequately discuss the importance of stakeholder involvement in policymaking. This is necessary to ensure that the government meets the community's needs (Hao Yu, 2023). Extensive research has been conducted on the complexities of educational governance and the interplay between policy, practice, and pedagogy in various academic settings. Given these facts, it is crucial to conduct a comprehensive literature review that synthesizes existing knowledge and fills the existing gaps. This review will help us consider ways to improve things by taking a closer look at the complexities of government policy about enhancing teacher and school effectiveness. The following section will examine specific policies, their implementation, and the impact of these policies on teacher development and institutional effectiveness.

There are many problems with education in developing countries. For example, there is not enough funding, there are not enough qualified teachers, the infrastructure is inadequate, and the needs for teaching and technology are changing rapidly. This problem is exacerbated by differences in income and wealth, regional disparities, and inefficiencies in the government's operations. In these cases, government policies are not only important but also necessary to remedy structural problems and promote the advancement of education that is open, fair, and durable to all.

The government has a significant impact on students' academic performance by creating programs to train teachers, providing resources, establishing educational standards, and encouraging innovative ideas about school management. Over the years, education reform has demonstrated the importance of having a policy framework that aligns national development goals with international education initiatives, particularly the Sustainable Development Goals (SDGs), with a focus on Goal 4, which emphasizes the provision of quality education.

Combining digital technology and global standards in education makes it more challenging to create and implement policies. Policymakers must now balance global trends with local needs. They need to ensure that the changes are not just copies of foreign models but are adapted to the cultural, economic, and institutional settings.

This literature review aimed to examine the impact of government policies on the growth of teachers and schools in developing countries. The aim is to provide a critical synthesis of current academic research, identify trends and shortcomings in policy efficacy, and highlight the importance of context-sensitive, inclusive governance in promoting equity and educational excellence.

METHOD

This study uses a qualitative integrative literature review methodology to analyze government policies related to the advancement of teaching staff and educational institutions in developing countries. This strategy carefully combines ideas from various scientific articles to provide a comprehensive understanding of the topic in multiple contexts.

We selected literature based on specific criteria: (1) peer-reviewed journal articles published between 2021 and 2025, (2) studies that looked at teacher development, educational institutions, policy effectiveness, or stakeholder collaboration, and (3) studies conducted in or relevant to developing country contexts. To find relevant sources, we use academic databases such as Scopus, Web of Science, and Google Scholar

This review critically examines secondary data to identify trends, best practices, and persistent shortcomings within policy frameworks rather than engaging in direct empirical

research. The methodological rigor of each selected paper was evaluated based on relevance, methodological transparency, and clarity of results. This literature review aims to provide a nuanced and contextually sensitive understanding of how government policies impact education in developing regions by synthesizing diverse research perspectives.

RESULT AND DISCUSSION

Over the years, studies on government policies aimed at improving teachers and schools have evolved significantly, revealing diverse methods and outcomes. Preliminary research highlights the importance of government programs in establishing a foundational system for teacher training and supporting schools, with policy changes being implemented to address the urgent educational needs of developing regions (Civera et al., 2020; Herman et al., 2022; Madani, 2019). Research demonstrates the importance of employing strategies tailored to each specific situation. This is because generic policies often do not meet the needs of local schools, leading to calls for a personalized approach that takes into account social and economic factors (Au Yong, 2019; Bennett, 2023; Kusmawati et al., 2022).

The emphasis shifts to cohesive strategies in education policy, highlighting the linkage between teaching quality and institutional capability. This time, there has been an increase in investment in professional development initiatives as the government recognizes that qualified instructors are essential to improving educational outcomes (Hammoudi et al., 2023). In addition, research conducted so far has documented successful case studies from several developing countries, showing that partnerships between governments, NGOs, and schools can make a significant difference (Mcheka & Mislay, 2025; Niswaty, 2018; Wahira, 2017).

There is a growing focus on international benchmarks and standards as governments strive to align their plans for teacher development with global education efforts (Abelha et al., 2020; Fraser-Pearce, 2022; Hao Yu, 2023; Reddy, 2023). Researchers criticize this trend, saying that while global norms are essential, they often ignore local needs and cultural differences, which makes it difficult to implement policies consistently. The literature indicates that continuous evaluation and adaptable policy frameworks are crucial for enhancing schools and developing teachers across various educational settings (Ignacio et al., 2022; Mcheka & Mislay, 2025; Zheng, 2024).

Various aspects of government policies regarding the progress of educators and educational institutions illustrate a comprehensive discourse. A prominent theme is the need for teacher training and professional development as essential to improve the quality of educators (Gegenfurtner et al., 2020; Mohamad & Abd, 2023). Research indicates that excellent teacher preparation programs enhance student outcomes, underscoring the importance of ongoing government support in this area (Gui et al., 2020; Jena & Barad, 2024; Ogundipe & Oyewole, 2022). In addition, utilizing technology in schools is crucial for updating the teaching methods of teachers and encouraging them to explore new avenues for professional growth (Arhas et al., 2022; Suprianto et al., 2020).

The primary topic is the equitable distribution of resources, which many studies indicate is crucial for fostering an inclusive learning environment. Disparities in funding and access to suitable training opportunities suggest that systemic inequities exist that need to be addressed by policymakers (Pisica et al., 2023). Researchers often criticize the lack of funding for schools in poor areas and push for policies that ensure equitable support for all types of schools (Sharma, 2024). Additionally, cooperation between government agencies and schools is a crucial component in the success of policy implementation. Collaborating with stakeholders, including local governments and school leaders, can help create a more unified plan to address complex educational issues. This cooperation is essential for the continuous improvement of the education system and to ensure that policies reflect the real experiences of teachers and students. The literature emphasizes the importance of a broad approach that takes into account the many factors that affect educational development and institutional effectiveness

Different ways of looking at government policies that affect teacher and school growth show a variety of perspectives that help better understand this complex topic. For example, quantitative studies provide detailed statistical analysis of how policies affect outcomes, often revealing performance indicators that help optimize resource allocation. (Gkrimpizi et al., 2023). However, these studies may overlook important details about the context that qualitative methods can help clarify, such as the cultural and social factors that influence the implementation of policies.

Qualitative methods, on the other hand, focus on in-depth case studies that allow researchers to see the real-life experiences of teachers and policymakers. (Pisica et al., 2023). This method has been beneficial in clarifying the interaction between government structures and local conditions, demonstrating that policy goals and real-world outcomes are not always aligned.

Mixed-methods research has been a valuable approach to addressing issues from both quantitative and qualitative perspectives by combining statistical analysis with narrative description. This integration facilitates a deeper understanding of how policies are viewed and implemented in various settings, fostering more in-depth discussions about education reform. (Kamalov et al., 2023)

The various methodological frameworks employed in the literature focus on different aspects of policy analysis. They also emphasize the importance of context, complexity, and adaptability in developing good teachers and schools.

The literature review reveals several recurring and related themes essential for understanding the effectiveness of government policies in improving schools and teachers.

1. Teacher Training and Professional Development

Teacher training and professional development are essential foundations for improving the quality of education. A substantial body of research indicates that long-term investments in teacher training programs have a direct impact on enhancing pedagogical competence, professionalism, and student learning outcomes. Structured and continuous training programs enable teachers to update their knowledge, implement innovative teaching practices, and respond adaptively to the changing needs of students' learning. Countries with superior education systems, such as Finland, Singapore, and South Korea, place teacher professional development as a top priority in their national education policies. In these countries, training is not only considered an administrative obligation but an integral part of a teacher's career journey. Teachers routinely participate in needs-based training, practice-based training (also known as in-service training), and collaborative programs, such as lesson study, peer review, and peer coaching. Therefore, governments and educational institutions need to develop a clear and quality-oriented policy framework, taking into account three main aspects:

- a. Quality of training, which includes relevant materials, competent trainers, and evidence-based practices;
- b. Frequency of training so that teachers do not only attend training incidentally but routinely and on a schedule throughout the school year;
- c. Accessibility of training ensures that all teachers, including those in disadvantaged areas, have equal opportunities to develop their teacher capacity.

Training should not stand alone but rather be integrated with the teacher performance appraisal system, career development planning, and professional incentives. This will encourage teachers to continue learning and improving themselves because they feel appreciated and supported in a systematic manner. If carried out consistently and based on an evaluation of real needs in the field, teacher training can be the main driving force behind national education transformation.

2. Fairness in how resources are used

Equity in the distribution of educational resources is an essential element in creating an inclusive and competitive education system. Distributional inequality, particularly between urban and rural areas or developed and disadvantaged areas, has been a persistent challenge

that has the potential to widen the gap in educational quality. Many schools in rural and marginalized areas continue to face challenges, including limited access to qualified teachers, inadequate teaching materials, substandard physical infrastructure, and a lack of support from central and regional educational institutions.

These issues not only impact access to education but also long-term learning outcomes. Children from disadvantaged areas tend to have lower academic results, higher dropout rates, and limited opportunities to continue to higher education or enter the workforce with adequate provisions.

To address this problem, policies are needed that place the principle of equity as the primary foundation, not just equality. Equity means that resource allocation is based on need – not equal amounts – so that more disadvantaged areas receive more significant intervention and support to catch up. An equity-based policy framework should include:

- a. Mapping of specific educational needs per region so that policies are more contextual and targeted;
- b. Incentives and additional allowances for teachers who are willing to teach in 3T areas (frontier, outermost, disadvantaged);
- c. Educational infrastructure revitalization program that prioritizes schools with unsuitable building conditions;
- d. Empowering local communities in educational decision-making so that policies are more responsive to field realities.

The application of the principle of justice also requires a transparent monitoring and evaluation system, allowing for the periodic review of resource distribution and improvement as necessary. With this approach, the education gap can not only be narrowed but also a solid foundation for equitable distribution of quality of life and more equitable socio-economic growth.

3. Engaging stakeholders

The active participation of stakeholders is one of the key factors in the successful formulation and implementation of education policies. Stakeholders in this context include teachers, school principals, supervisors, parents, students, community leaders, the business and industrial world, as well as local and central government institutions. Their involvement in the decision-making process ensures that the policies made are not only top-down but also reflect the real needs and aspirations on the ground.

When teachers and school administrators are involved from the planning stage, they gain a better understanding of the policy's direction and feel more responsible for its implementation. This creates a sense of ownership that encourages commitment and compliance with policy implementation. Similarly, local communities involvement can increase the social legitimacy of policies, strengthen support for schools, and facilitate constructive social control of the educational process. Collaborative policy design provides several tangible benefits, including:

- a. Increased relevance of policies, as they are based on input from various actors with different experiences and perspectives;
- b. Increase the effectiveness of implementation, as policy implementers also design their operational strategies;
- c. Strengthening public accountability because the decision-making process is carried out openly and participatory;
- d. The emergence of local innovation, as schools and communities are given space to create and adapt policies to the school's unique context.

To support meaningful engagement, governments and educational institutions need to provide systematic consultation and dialogue mechanisms, such as school deliberation forums, cross-sector coordination meetings, community needs surveys, or participatory

digital platforms. In addition, strengthening the capacity of stakeholders, especially in understanding the substance of policies and their roles, is also an essential condition for the success of this participation.

By making collaboration a fundamental principle in the policy process, education is no longer a matter for the government alone but rather a joint movement towards improving the quality and equity of education as a whole.

In general, these findings confirm that the success of education reform cannot be achieved through a one-way approach or uniform policies. Instead, effective education policies must be based on empirical evidence so that every step of change has a strong and measurable foundation. Additionally, the involvement of all stakeholders, including teachers, principals, parents, communities, and local governments, is a crucial prerequisite for fostering a sense of ownership and collective commitment to policy implementation. On the other hand, since the characteristics of schools vary greatly depending on the geographical, social, and economic context, sustainable reforms must be tailored to the specific needs of each educational unit, both in urban and rural areas. With these principles, which include an evidence-based approach, an inclusive approach, and contextual adjustments, education reform has a more significant opportunity to create real, sustainable, and equitable change for all students across the country.

CONCLUSION

Government initiatives are crucial for improving teacher ability and institutional effectiveness in developing nations. The efficacy of these policies is primarily contingent upon their ability to adapt to local settings, engage key stakeholders, and ensure ongoing investment in professional development. While global benchmarks provide valuable frameworks, they require adaptation to align with the socio-cultural and economic realities of each location to achieve genuine impact. Collaborative and participatory policy formulation is essential, guaranteeing that the perspectives of educators, administrators, and communities are acknowledged and integrated.

Governments should prioritize sustained investment in professional development programs that enhance teacher competencies and leadership, thereby facilitating significant educational reform. Policies must be developed with a comprehensive understanding of local requirements and be underpinned by systems that enable active stakeholder involvement. The fair allocation of resources is a significant issue, especially in underserved and rural regions where educational inequalities are most pronounced. Moreover, the incorporation of technology into the academic framework necessitates both infrastructural preparedness and educator training to guarantee efficient implementation.

Future policy initiatives might benefit from enhanced cross-country comparative analyses that can reveal best practices and provide transferable insights. In conclusion, lasting improvements in educational systems depend on policies that are inclusive, evidence-based, and adaptable to the changing problems and opportunities in diverse learning contexts.

REFERENCES

- Abelha, M., Fernandes, S., Mesquita, D., Seabra, F., & Ferreira-Oliveira, A. T. (2020). Graduate Employability and Competence Development in Higher Education—A Systematic Literature Review Using PRISMA. *Sustainability*, 12(15), 5900. <https://doi.org/10.3390/su12155900>
- Akib, H., Mustafa, M. R. F. Z. F., & Darwis, M. (2024). The Influence of the Office Practice Program on Increasing Student Competence. *Journal of Educational Development and Learning (JEDAL)*, 57–68.

- Arhas, S. H., & Haryoko, S. (2024). Strategi Penjaminan Mutu Perguruan Tinggi. In N. Hasyim & H. Haerul (Eds.), *ASHA Publishing*. ASHA Publishing. <https://doi.org/10.63164/590723>
- Arhas, S. H., Mahardika, L. A., & Zainuddin, M. S. (2022). Effectiveness of Online System Lectures during the Covid-19 Pandemic. *Pinisi Journal of Education and Management*, 1(2), 127–134.
- Arhas, S. H., Niswaty, R., Cahyono, T., & Rahman, N. (2022). Social Network Analysis: E-Marketing Sales of “Kue Lebaran” in the Perspective of the Technology Acceptance Model. *Pinisi Business Administration Review*, 4(1), 45–52.
- Arhas, S. H., Septian, A., & Isgunandar. (2023). The Influence of Discussion Learning Methods on Student Learning Interests. *Pinisi Journal of Education and Management*, 2(1), 97–106.
- Au Yong, H. N. (2019). Preparing for youth employment in Malaysia: the influence of education and training policy. *International Economic Policy*, 30. <https://doi.org/10.33111/iep.2019.30.01>
- Bennett, M. T. (2023). Public policy: A concise introduction . *Journal of Public Affairs Education*, 29(2). <https://doi.org/10.1080/15236803.2022.2146950>
- Civera, A., Lehmann, E. E., Paleari, S., & Stockinger, S. A. E. (2020). Higher education policy: Why hope for quality when rewarding quantity? *Research Policy*, 49(8), 104083. <https://doi.org/10.1016/j.respol.2020.104083>
- Darwis, M., & Haerul, H. (2024). Quality of Academic Services in the Academic Administration Section. *International Journal of Administration and Education (IJAE)*, 79–86.
- Destafiana, A. F., Nasaruddin, N., & Jamaluddin, J. (2024). Analysis of the Conformity of Productive Learning Competencies with the Implementation of Industrial Work Practices at SMK Negeri 3 Sinjai. *Journal of Educational Development and Learning (JEDAL)*, 50–56.
- Fraser-Pearce, J. (2022). Spiritual education as a subspecies of relational education? *British Journal of Religious Education*, 44(1). <https://doi.org/10.1080/01416200.2021.1877613>
- Gegenfurtner, A., Schmidt-Hertha, B., & Lewis, P. (2020). Digital technologies in training and adult education. *International Journal of Training and Development*, 24(1), 1–4.
- Gkrimpizi, T., Peristeras, V., & Magnisalis, I. (2023). Classification of Barriers to Digital Transformation in Higher Education Institutions: Systematic Literature Review. *Education Sciences*, 13(7), 746. <https://doi.org/10.3390/educsci13070746>
- Gui, A. K. W., Yasin, M., Abdullah, N. S. M., & Saharuddin, N. (2020). Roles of teacher and challenges in developing students’ morality. *Universal Journal of Educational Research*, 8(3 3C). <https://doi.org/10.13189/ujer.2020.081606>
- Hammoudi, H. D., Soltani, A., Dalli, R., Alsarraj, L., & Malki, A. (2023). Understanding and Fostering Mental Health and Well-Being among University Faculty: A Narrative Review. *Journal of Clinical Medicine*, 12(13), 4425. <https://doi.org/10.3390/jcm12134425>
- Hao Yu. (2023). Reflection on whether Chat GPT should be banned by academia from the perspective of education and teaching. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1181712>
- Hasyim, N., Arfiani, A., & Saleh, S. (2024). The Influence of Teachers’ Pedagogic Competence on Student Learning Activity. *International Journal of Administration and Education (IJAE)*, 87–95.
- Herman, H., Mahyuddin, A. A., & Amirullah, A. (2022). Communication of Educational Zoning Policy in Makassar City. *Jurnal Ad’ministrare*, 9(1), 95–102.

- Ignacio, L., Cristobal, A., David, P. C., & Ignacio, L. B. (2022). Impact of Policy Implementation on Education Quality: A Case Study on Philippines' Low Ranking in International and Local Assessment Programs. *41 Asian Journal on Perspectives in Education (AJPE) Online*, ISSN(1).
- Jamal, A. I., & Wahira, W. (2024). Guiding Students to Become Young Entrepreneurs Through School Entrepreneurship Education. *Journal of Educational Development and Learning (JEDAL)*, 88-95.
- Jena, M. K., & Barad, S. (2024). Professional Development of Secondary School Teachers: Adapting to 21st Century Educational Paradigms. *International Journal of Scientific Research in Modern Science and Technology*, 3(1). <https://doi.org/10.59828/ijrmst.v3i1.172>
- Kamalov, F., Santandreu Calonge, D., & Gurrib, I. (2023). New Era of Artificial Intelligence in Education: Towards a Sustainable Multifaceted Revolution. *Sustainability*, 15(16), 12451. <https://doi.org/10.3390/su151612451>
- Koohang, A., Nord, J. H., Ooi, K.-B., Tan, G. W.-H., Al-Emran, M., Aw, E. C.-X., Baabdullah, A. M., Buhalis, D., Cham, T.-H., Dennis, C., Dutot, V., Dwivedi, Y. K., Hughes, L., Mogaji, E., Pandey, N., Phau, I., Raman, R., Sharma, A., Sigala, M., ... Wong, L.-W. (2023). Shaping the Metaverse into Reality: A Holistic Multidisciplinary Understanding of Opportunities, Challenges, and Avenues for Future Investigation. *Journal of Computer Information Systems*, 63(3), 735-765. <https://doi.org/10.1080/08874417.2023.2165197>
- Kusmawati, A. P., Marini, A., & Marathon, N. (2022). Implementation of Inclusive Education Policy for ABK in Subang Regency. *Jurnal Ad'ministrare*, 9(1), 69-76.
- Madani, R. A. (2019). Analysis of educational quality, a goal of education for all policy. *Higher Education Studies*. <https://eric.ed.gov/?id=EJ1203706>
- Maulidya, N., Akib, H., & Arhas, S. H. (2024). The Influence of the Application of the Discussion Learning Method on Students' Learning Interest at SMK Negeri 1 Pangkep. *International Journal of Administration and Education (IJAE)*, 149-157.
- Mcheka, H. M., & Mislav, M. A. (2025). Politics of school evaluation during quality assurance policy implementation in selected secondary schools in Dodoma, Tanzania. *Quality Assurance in Education*.
- Mohamad, N. I., & Abd, R. I. (2023). Supervisors' roles in training program culture, training intrinsic motivation and knowledge transfer: An empirical study. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, 8(2), 9.
- Mustafa, D., Askar, A., Rahman, N., Arhas, S. H., & Niswaty, R. (2023). *Analysis of the Application Of Information Technology Systems and Employee Performance*.
- Niswaty, R. (2018). The Influence of Education Policy Implementation Toward the Availability of Professional Teachers In 3T Areas in Indonesia. *Proceeding in 1st International Conference on Social Sciences (ICSS 2018)*, 1021-1024.
- Ogundipe, O. G., & Oyewole, O. (2022). Peer Influence And Locus Of Control As Determinants Of Social Studies Preservice Teachers' Attitude To Entrepreneurship Education In Southwestern Nigeria. ... , *Andragogy and Heutagogy in* <http://uonjournals.uonbi.ac.ke/ojs/index.php/pedagogy/article/view/1370>
- Pisica, A. I., Edu, T., Zaharia, R. M., & Zaharia, R. (2023). Implementing Artificial Intelligence in Higher Education: Pros and Cons from the Perspectives of Academics. *Societies*, 13(5), 118. <https://doi.org/10.3390/soc13050118>
- Reddy, M. (2023). Higher education's influence on social networks and entrepreneurship in Brazil. *Social Network Analysis and Mining*, 13(1). <https://doi.org/10.1007/s13278-022-01011-6>

- Saleh, S., Emiliani, R., Nasrullah, M., Arhas, S. H., & Takdir, M. (2021). Creativity in Teaching Teachers in the Department of Office Administration Automation at SMK Nurul Qalam Makassar. *Jurnal Office*, 7(2), 225–232.
- Sharma, R. C. (2024). Transformative Horizons in Education: Navigating Challenges, Embracing Innovations, and Shaping Global Landscapes. *International Journal of Changes in Education*. <https://api.semanticscholar.org/CorpusID:268158001>
- Sulastri, S., Saleh, S., & Jamaluddin, J. (2024). Effectiveness of Administrative Services at SMK Negeri 6 Makassar. *International Journal of Administration and Education (IJAE)*, 141–148.
- Suprianto, S., Arhas, S. H., Mahmuddin, M., & Siagian, A. O. (2020). The effectiveness of online learning amid the COVID-19 pandemic. *Jurnal Ad'ministrare*, 7(2), 321–330.
- Tiwi, T., Niswaty, R., & Saleh, S. (2024). Laboratory Management in the Department of Office Governance Automation at SMK Nasional Makassar. *Journal of Educational Development and Learning (JEDAL)*, 69–76.
- Wahira, W. (2017). Need Analysis of Lesson Planning to Teach Education Value of Sulawesi Ethnic Dance Teaching in Primary School. *Harmonia: Journal of Arts Research and Education*, 16(2). <https://doi.org/10.15294/harmonia.v16i2.6733>
- Wahira, W., Hamid, A., & Lukman, H. B. (2024). *Analysis of The Need for Development of A Multigrade Management Model In The Era of Independent Learning in Souths Sulawesi Elementary School*. https://doi.org/10.2991/978-2-38476-210-1_17
- Zheng, L. (2024). The role of higher education and institutional quality for carbon neutrality: Evidence from emerging economies. *Economic Analysis and Policy*, 81, 406–417. <https://doi.org/10.1016/j.eap.2023.12.008>