

IMPROVING THE QUALITY OF MULTISECTORAL EDUCATION THROUGH INTER-SECTORAL SYNERGY: A LITERATURE REVIEW

Novianty Djafri

Universitas Negeri Gorontalo

noviantydjafri@ung.ac.id

Al-Amin

Universitas Airlangga, Surabaya, Indonesia

al.amin-2024@feb.unair.ac.id

Abstract

This research examines the impact of multisectoral synergy in improving education quality through a comprehensive literature review. This approach involves collaboration between the government, private sector and non-governmental organisations (NGOs) to pool and utilise diverse resources, expertise and technology to address educational challenges. The results of the study show that inter-sectoral synergies not only contribute to improving infrastructure and enhancing the quality of teaching staff, but also introduce more interactive and contextualised learning methods. These partnership programmes are able to create learning environments that are inclusive and adaptive to local needs, and enable equitable access to education to remote areas. In conclusion, sustained collaboration between sectors is essential to achieve a comprehensive improvement in the quality of education and provide a long-term positive impact on students' future readiness.

Keywords: Quality, Multisectoral Education, Inter-sectoral Synergy, Literature Review.

Introduction

Education is the main foundation in the development of highly competitive human resources capable of facing global challenges. In the current era of globalisation, meeting the needs of quality education cannot rely on one sector alone, but requires synergy from various sectors, including the government sector, the private sector, the community, and non-governmental organisations. This multisectoral education allows the creation of more holistic and integrated learning, in accordance with the demands of the times (Ikhlas et al., 2024); (Arnadi et al., 2021); (Arnadi et al., 2024); (Firdausih & Aslan, 2024).

Multisectoral education is an educational approach that involves the co-operation and collaboration of various sectors, such as the government, the private sector, educational institutions, and the community, to achieve more holistic and comprehensive educational goals. This approach allows for synergy in the utilisation of educational resources, technologies and methods, thus providing richer and more varied learning (Fu & Gao, 2023).

The main objective of multisectoral education is to improve the quality and relevance of education through co-operation between various sectors to create a

holistic, inclusive and sustainable learning environment. By involving governments, educational institutions, the private sector and communities, multisectoral education aims to optimise the utilisation of resources, bring diverse perspectives, improve accessibility and address the challenges of modern education and global . This goal is expected to empower individuals with relevant skills and knowledge to succeed in an increasingly complex and connected world (Makhachashvili & Semenist ., 2024)

Therefore, multisectoral education is important because it is able to address the complex challenges in education more effectively through collaboration and synergy between various sectors, such as government, educational institutions, industry and society. This approach maximises resource utilisation, brings in diverse views and expertise, and encourages innovation in teaching methods and curricula (Shattuck & Olcott, 2022) . As such, multisectoral education improves the quality and accessibility of education, ensuring that every individual has a fair chance to develop and be prepared for the needs of the global labour market and future socio-economic challenges

However, in its implementation, multisectoral education faces various challenges and obstacles. These include a lack of inter-sectoral coordination, differences in vision and mission, and constraints in financing and resources. Various studies have shown that good inter-sectoral synergy can improve the overall quality of education (Amirullah, 2020) . Effective collaboration is expected to maximise available resources, create innovations in teaching methods, and provide wider and more equitable access for learners. However, these inter-sectoral synergies have not been fully utilised in many countries, including Indonesia. Some multisectoral programmes and policies still focus on specific sectors without comprehensive integration (Sumantri et al., 2024) . Therefore, this literature review aims to explore how inter-sectoral synergies can be effectively applied in improving the quality of multisectoral education.

Research Methods

The study in this research uses the literature method. The literature research method is a research approach that involves collecting, analysing, and synthesising information from various written sources to understand, formulate, or solve a research problem. These sources can be books, journal articles, research reports, official documents, and other written sources of information relevant to the topic being researched (Sudrajat & Moha, 2019) ; (Yusanto, 2020) . The literature research process usually includes steps such as the identification of credible sources, critical appraisal of their content and contributions, and the compilation of findings in the form of a literature review that describes the development of existing knowledge as well as gaps that still need further research. This method is important because it provides a strong theoretical basis for new research and ensures that the research is based on a comprehensive understanding of the topic under study (Rofiah & Bungin ., 2021)

Results and Discussion

The Concept of Multisectoral Education

Multisectoral education is an educational approach that involves collaboration and integration between various sectors such as the government, private sector, educational institutions and communities to achieve holistic and sustainable educational goals. The concept is rooted in the understanding that effective education depends not only on formal education institutions but also on various external factors that can influence the teaching-learning process. By involving various sectors, multisectoral education aims to create a learning environment that is more dynamic, relevant and contextualised to real-world needs and challenges (Khalid & Owusu-Boateng, 2024a).

Collaboration between these sectors allows for a more efficient and optimal allocation and utilisation of resources. The private sector, for example, can provide support in the form of technology, funds and practical knowledge that can be applied in the education curriculum. On the other hand, the government can provide a regulatory and policy framework that supports the development of inclusive and equitable education. Communities and non-governmental organisations also play an important role in ensuring that education is accessible to all and takes into account local and cultural needs (Khalid & Owusu-Boateng, 2024b).

The implementation of multisectoral education also includes learning that focuses on real issues and is relevant to everyday life. For example, curricula can be designed by involving inputs from various sectors to customise the skills and knowledge taught according to industrial and social needs. Project-based education and real work experience can also be introduced so that students have the opportunity to develop practical abilities needed in the world of work. This approach not only enhances learners' technical competence, but also hones critical thinking, collaboration and adaptation skills (Khalid & Owusu-Boateng, 2024c).

In addition, multisectoral education also supports the creation of strong networks and partnerships between various stakeholders. This creates a mutually supportive and sustainable education ecosystem where information, knowledge and resources can be shared for mutual benefit. With linkages between all sectors, challenges in education can be addressed more effectively and innovatively (Kuhlee, 2021). Multisectoral education ultimately aims to produce a generation that is not only skilled and knowledgeable, but also able to contribute positively in an ever-evolving and changing society.

Inter-sector Cooperation Model

The intersectoral co-operation model is a strategic approach that combines the strengths and resources of various sectors, including government, private sector, non-profit organisations, academia, and the wider community to achieve complex and

multifaceted common goals. One popular model for this type of co-operation is the Public-Private Partnership (PPP), which is often used for infrastructure and public service initiatives. In this model, the government and the private sector join forces to plan, fund, build, and manage projects that are important to the public interest (Hidayat, 2024).

The advantages of this cooperation model are more effective utilisation of resources and achievement of more optimal results. The government can benefit from the efficiency and innovation offered by the private sector, while the private sector can get regulatory support and incentives from the government. For example, in a hospital construction project, the government can provide land and favourable regulations, while the private sector provides development funds as well as the latest medical technology. As a result, people get quality health facilities more quickly and efficiently (Cao, 2020).

Inter-sectoral cooperation can also be applied to education, with universities working with industry to develop curricula that are relevant to employment needs, as well as providing internships and research programmes. This model not only enhances students' technical skills and knowledge, but also bridges the gap between the academic and professional worlds. Through this collaboration, graduates are created who are work-ready and have the competencies needed by the industry, and provide innovative solutions to the challenges faced by the business world (Obeidi, 2020).

However, inter-sectoral co-operation models require commitment and good coordination between all parties involved. Challenges such as differences in interests, organisational cultures, and working mechanisms need to be managed wisely to ensure cooperation runs smoothly and effectively. Transparency, honest communication, and continuous monitoring and evaluation mechanisms are key to the success of this cooperation model. With proper implementation, inter-sectoral cooperation models can create positive and sustainable synergies for the welfare of society and overall economic development (Silva & Bachkirov., 2023)

Despite its many advantages, the inter-sectoral cooperation model is not free from challenges. One of the main challenges is the need to harmonise different interests and priorities among the parties involved. The government may be more focused on public services and social stability, while the private sector tends to pursue profit and efficiency (Chen & Yeh, 2024). In addition, the success of this co-operation is highly dependent on the quality of communication and effective negotiation processes between stakeholders. Issues of regulation, transparency and accountability are also often obstacles that need to be overcome with clear and mutually agreed mechanisms (Etang & Touray, 2022).

It is also important to consider the capacity and readiness of each sector to work together. The private sector, for example, needs to be familiar with government bureaucracy and regulations, while the government needs to be able to accommodate

the efficient and speedy business approach of the private sector. Good project management capacity, competent human resources, and adequate technology also play an important role in the success of this cooperation. Integrated training and coaching for all parties involved can help improve readiness and capability for productive cooperation (Touray & Ndip, 2020) .

On the other hand, the community as the ultimate beneficiary of the collaboration also needs to be involved in the planning and implementation process. Community participation can enrich perspectives and improve project acceptability and sustainability. Transparency in the delivery of information and openness to public input are essential to ensure that the final outcome is in line with public needs and aspirations. In addition, periodic evaluation with community involvement allows for refinement and adjustment of strategies that are more responsive to dynamics and challenges on the ground (Hou et al., 2023) .

Overall, the inter-sectoral cooperation model is a potential strategy to solve complex development challenges that require multi-sectoral collaboration. By utilising the strengths of each sector, such as innovation and efficiency from the private sector and regulation and stability from the government, sustainable development goals can be more easily achieved. Despite the challenges, strong commitment, effective communication, and active participation from all parties can bridge differences and create synergies that benefit society as a whole (Herbert, 2021) . Transparency, accountability, and good monitoring mechanisms are key elements in realising successful and sustainable cooperation. Thus, the inter-sectoral cooperation model can be an important vehicle for achieving inclusive and equitable economic and social development.

Impact of Inter-Sector Synergies on Education Quality

Synergies between sectors, particularly between the government, private sector and non-governmental organisations, have shown a positive impact on the quality of education. This collaboration allows for the pooling of resources, expertise and technology that can enrich the teaching and learning process and improve access and quality of education. Solid cooperation between these sectors can overcome many obstacles that have been hampering the education system, such as the lack of facilities and infrastructure, the low quality of teaching staff, and inequitable access to education, especially in remote areas (Jaber & Elayyan, 2022) .

In the private sector, companies that have an interest in human resource development usually contribute in the form of Corporate Social Responsibility (CSR) programmes. CSR programmes often include the construction of educational infrastructure, provision of scholarships and technical guidance for teaching staff. This not only helps underfunded schools, but also motivates students and teachers to improve their performance. On the other hand, the presence of technology and

innovation from the private sector can introduce more interactive and effective learning methods, which can ultimately improve the quality of education (Marnell & Thornton, 2022).

Non-governmental organisations (NGOs) also play an important role in improving the quality of education through various advocacy and community empowerment programmes. NGOs often bridge the gap between the government and the community by training teachers, providing better teaching materials and organising literacy programmes in the community. By supporting local initiatives, NGOs help to ensure that education is not only the responsibility of the government but also a movement shared by all. (Kelley & Schuster, 2022).

The government, as the main regulator, plays a role in providing a policy and regulatory framework that supports the acceleration of education quality improvement through inter-sectoral synergies. A government that is proactive in forging partnerships with the private sector and NGOs can create an education ecosystem that is more flexible and responsive to community needs. In addition, by adopting a participatory approach to policy-making, the government can ensure that all voices, including those from the private sector and NGOs, are heard and properly accommodated in the strategic planning of Education (Bwire, 2022).

Thus, synergies between sectors can bring about significant changes in the quality of education, creating a more holistic and inclusive learning environment. By utilising the strengths of each sector, educational progress can be achieved faster and more sustainably. This improvement in education quality will, in turn, create a future generation that is more skilled, innovative and ready to face global challenges. Effective collaboration between the government, private sector and NGOs is key to unlocking the full potential of the education system, which will ultimately contribute to more equitable and sustainable economic and social development.

Conclusion

Inter-sectoral synergy is an effective approach to improving the quality of education. By involving various parties such as the government, the private sector and non-governmental organisations (NGOs), resources, expertise and technology can be pooled to overcome various challenges in the education system. Each sector has a unique and complementary role; the government develops policies and regulations, the private sector provides innovation and funding, while NGOs provide advocacy and community empowerment.

Studies show that these synergies not only support infrastructure improvements and improved quality of teaching staff, but also introduce more interactive and contextualised learning methods. Partnership programmes between schools, the private sector and NGOs can create learning environments that are more inclusive and

adaptive to local needs. This approach also enables equitable access to education to remote areas, thereby reducing education disparities between urban and rural areas.

As such, this study underscores the importance of sustained commitment and co-operation between sectors to achieve overall improvements in education quality. Well-designed synergy programmes can generate sustainable positive impacts, improving students' competencies and readiness to face future challenges. Therefore, integration and close collaboration between sectors need to be enhanced as a key strategy to create better education for all.

References

- Amirullah, Y. (2020). The Synergy of Competency Strategy of Islamic Education Teacher to Improve the Quality of Education and Character of Students in Millennial Era. *Educan: Journal of Islamic Education*, 4 (1), 135-135. <https://doi.org/10.21111/educan.v4i1.4570>
- Arnadi, A., Aslan, A., & Mahbu, M. (2021). ISLAMIC RELIGIOUS EDUCATION TEACHERS' EFFORTS IN IMPLEMENTING THE 2013 CURRICULUM OF MADRASAH IBTIDAIYAH SE-KKM 2 SAMBAS. *Inspirational Education*, 10 (2), 247-256. <https://doi.org/10.24252/ip.v10i2.18571>
- Arnadi, A., Aslan, A., & Vandika, A. Y. (2024). THE USE OF ARTIFICIAL INTELLIGENCE FOR PERSONALISATION OF LEARNING EXPERIENCES. *Journal of Education Science and Local Wisdom*, 4 (5), Article 5.
- Bwire, D. (2022). Knowledge Creation Through Epistemic Synergy: A Foundation for Equitable Education. *AERA 2022*, Query date: 2025-02-12 10:04:26. <https://doi.org/10.3102/ip.22.1886922>
- Cao, Z. (2020). Study on the Synergy of Moral Education Community. *Proceedings of the 2020 Conference on Education, Language and Inter-Cultural Communication (ELIC 2020)*, Query date: 2025-02-12 10:04:26. <https://doi.org/10.2991/assehr.k.201127.024>
- Chen, C.-H., & Yeh, H.-C. (2024). Scripted synergy: Elevating EFL writing and creativity through collaborative digital storytelling. *Technology, Pedagogy and Education*, 34 (1), 91-104. <https://doi.org/10.1080/1475939x.2024.2382970>
- Etang, A., & Touray, S. (2022). Reversing the Trend of Stunting in Sudan: Opportunities for Human Capital Development through Multisectoral Approaches. *Policy Research Working Papers*, Query date: 2025-02-12 10:04:26. <https://doi.org/10.1596/1813-9450-10246>
- Firdausih, F., & Aslan, A. (2024). LITERATURE REVIEW: THE EFFECT OF PROJECT-BASED LEARNING ON STUDENT MOTIVATION AND ACHIEVEMENT IN SCIENCE. *Indonesian Journal of Education (INJOE)*, 4 (3), Article 3.
- Fu, H., & Gao, Y. (2023). What makes higher education contribute to high-quality economic development-A synergy effect analysis based on scale, structure and quality elements. *Applied Mathematics and Nonlinear Sciences*, 9 (1). <https://doi.org/10.2478/amns.2023.2.01370>
- Herbert, S. (2021). *Reducing Criminal Violence Through Public Sector-led Multisectoral Approaches*. Query date: 2025-02-12 09:42:20. <https://doi.org/10.19088/k4d.2022.043>

- Hidayat, H. (2024). Synergy of Public Administration and Education in Efforts to Improve the Quality of Education in Indonesia. *International Journal Administration, Business & Organisation*, 5 (5), 85-92. <https://doi.org/10.61242/ijabo.24.439>
- Hou, Z., Duan, C., Yu, Y., & Wang, Z. (2023). Reusable and efficient energy-absorbing architected materials via synergy of snap-through instability and inter-locking mechanism. *Extreme Mechanics Letters*, 58 (Query date: 2025-02-12 10:04:26), 101948-101948. <https://doi.org/10.1016/j.eml.2022.101948>
- Ikhlas, I., Aslan, A., & Mutazam, M. (2024). THE IMPLEMENTATION OF PAI TEACHERS' INQUIRY STRATEGIES IN IMPROVING CRITICAL THINKING OF CLASS VI STUDENTS WITH THE CONCEPT OF HIGHER ORDER THINKING SKILLS (HOTS) AT SDN 06 MENSERE IN THE 2023/2024 ACADEMIC YEAR. *ADIBA: JOURNAL OF EDUCATION*, 4(4), 813-822.
- Jaber, A. O. A., & Elayyan, H. O. (2022). Quality Assurance Piloting the E-Learning Sector. *Toward Quality Assurance and Excellence in Higher Education*, Query date: 2025-02-12 10:04:26, 153-189. <https://doi.org/10.1201/9781003339830-6>
- Kelley, B., & Schuster, K. (2022). Better Inter-Disciplinary Education through a Pedagogy of Translanguaging. Query date: 2025-02-12 10:04:26. <https://doi.org/10.21203/rs.3.rs-2129887/v1>
- Khalid, A.-M., & Owusu-Boateng, O. (2024a). Factors for Adopting Technology in the Education Sector. *Navigating through Technology in Modern Education*, Query date: 2025-02-12 10:04:26, 46-58. <https://doi.org/10.2174/9789815238785124010004>
- Khalid, A.-M., & Owusu-Boateng, O. (2024b). Introduction to Digital Transformation in the Education Sector. *Navigating through Technology in Modern Education*, Query date: 2025-02-12 10:04:26, 1-15. <https://doi.org/10.2174/9789815238785124010002>
- Khalid, A.-M., & Owusu-Boateng, O. (2024c). The Adoption of Big Data in the Education Sector. *Navigating through Technology in Modern Education*, Query date: 2025-02-12 10:04:26, 87-112. <https://doi.org/10.2174/9789815238785124010007>
- Kuhlee, D. (2021). Teacher education for the vocational education and training (VET) sector in Germany. *Quality in Teacher Education and Professional Development*, Query date: 2025-02-12 10:04:26, 226-237. <https://doi.org/10.4324/9781003197973-15>
- Makhachashvili, R., & Semenist, I. (2024). Transformative, Transdisciplinary, Transcendent Digital Education: Synergy, Sustainability and Calamity. *Journal of Systemics, Cybernetics and Informatics*, 22 (4), 20-27. <https://doi.org/10.54808/jsci.22.04.20>
- Marnell, C. E., & Thornton, K. (2022). Leadership practices and indicators of quality, connected through internal evaluation processes in the New Zealand ECE sector. *The New Zealand Annual Review of Education*, 27 (Query date: 2025-02-12 10:04:26), 60-78. <https://doi.org/10.26686/nzaroe.v27.8032>
- Obeidi, A. S. A. (2020). Students Perspective of Services Quality in Higher Education Sector. *SSRN Electronic Journal*, Query date: 2025-02-12 10:04:26. <https://doi.org/10.2139/ssrn.3672299>
- Rofiah, C., & Bungin, B. (2021). Qualitative methods: Simple research with triangulation theory design. *Develop*, 5(1), 18-28.

- Shattuck, K., & Olcott, D. (2022). The Synergy of Leadership, Quality, Policy, Change: Opportunities and Tensions. *American Journal of Distance Education*, 36 (1), 1-2. <https://doi.org/10.1080/08923647.2022.2036550>
- Silva, M. P. da, & Bachkirov, A. A. (2023). Social inclusion through synergy of kindness, forgiveness, and peaceableness: A conceptual proposition. *Journal of Moral Education*, 53 (3), 450-466. <https://doi.org/10.1080/03057240.2023.2236315>
- Sudrajat, D., & Moha, I. (2019). *Variety of qualitative research*. Query date: 2024-05-25 20:59:55. <https://doi.org/10.31227/osf.io/jaxbf>
- Sumantri, Y. J., Zainal, A., & Kholis, A. (2024). The Influence of Financial Report Quality, Profitability and Tax Avoidance Practices on Business Value Through Financial Performance as a Mediating Variable in Banking Sector Companies. *Randwick International of Social Science Journal*, 5 (1), 103-109. <https://doi.org/10.47175/rissj.v5i1.850>
- Touray, S., & Ndip, A. E. (2020). *Reversing the Trend of Stunting in Sudan*. Query date: 2025-02-12 10:04:26. <https://doi.org/10.1596/36103>
- Yusanto, Y. (2020). Variety of Qualitative Research Approaches. *JOURNAL OF SCIENTIFIC COMMUNICATION (JSC)*, 1 (1). <https://doi.org/10.31506/jsc.v1i1.7764>