Article Review

A Holistic Perspective on Educational Quality: Concepts, Indicators, and Contributions to Societal Development

Bezabih Wondimu (PhD)[1]*, Zeleke Gonfa[2]

[1]Associate Professor in Curriculum Design and Development, Department of Educational Planning and Management, College of Education and Behavioral Studies, Madda Walabu University, Bale-Robe/ Ethiopia

Article Info	Abstract
  	The main objective of this systemathic review is to provide a comprehensive overview of the holistic understanding of quality in education, examining critical dimensions that influence educational outcomes. The review delves into the concept of quality education, identifying key indicators that define it and exploring its significant contributions to socio-economic development, thereby highlighting its role as a catalyst for individual and societal advancement. In addition, the review indetifyed the multifaceted challenges associated with maintaining quality education, including resource allocation, stakeholder engagement, and the integration of innovative pedagogical approaches. By contextualizing quality in education within the school environment through the lens of inputs, processes, and outputs, the review not only synthesizes existing literature but also presents a robust framework for understanding the complexities of educational quality. Moreover, this review serves as a foundational reference for future research, encouraging further exploration into effective strategies for enhancing quality in educational institutions and addressing the evolving needs of learners in a dynamic global landscape.

---

* *Corresponding* bezabih19@gmail.com

1. Introduction

The growing emphasis on quality education reflects a significant shift in societal perspectives regarding the role of education in fostering sustainable development and economic prosperity. Recent literature indicates that the quest for quality in education has evolved from industries, where the need for standardization and excellence was first recognized (Chiu, 2021; Al-Adwan et al., 2021). This realization has led to a broader understanding of quality that extends into various sectors, including service and educational industries. Educational institutions are now increasingly aware of the necessity for quality enhancement due to external pressures from labour market, consumer awareness, technological advancements, and competitive dynamics (Shimbergenovna, 2022; Xu & Ouyang, 2022).

Historically, in particular, in emerging economies, the educational sector has lagged behind the manufacturing industry in implementing

quality assurance practices. However, as globalization and technological advancements reshape the marketplace, educational institutions are compelled to adopt a more rigorous approach to quality. Educational stakeholders including students, parents, employers, and regulatory bodies are demanding higher standards of education that not only impart knowledge but also foster critical thinking, creativity, and practical skills necessary for the modern workforce (Zguir et al., 2021). This dynamic has catalyzed a re-examination of traditional teaching methodologies, pushing institutions to move beyond rote memorization and passive learning models (Sigalla King, 2015; UNESCO, 2004).

The operational landscape of educational institutions has undergone transformations, marked by an increased demand for high-quality education that aligns with the aspirations of diverse stakeholders (Budihardjo et al., 2021). This evolving environment presents considerable challenges for institutions striving to deliver quality education while adapting to changing societal needs (Kundu, 2017). For example, the rise of e-learning and hybrid models necessitates innovative pedagogical strategies that leverage technology to enhance learning outcomes (Al-Adwan et al., 2021). Moreover, the integration of artificial intelligence (AI) in education has opened new avenues for personalized learning, yet it also raises questions about equity and accessibility (Xu & Ouyang, 2022), especially in developing regions.

Quality in education is a multi-faceted and multidimensional construct that encompasses various aspects such as curriculum delivery, assessment, and the overall educational experience (Suresh & Kumaravelu, 2017). Understanding the current state of educational quality is essential for fostering improvements and ensuring that institutions remain accountable and responsive to the needs of their communities (Maki, 2023; Iqbal & Piwowar-Sulej, 2022). Despite significant advancements in the field, there remain gaps in comprehensive frameworks that elucidate the interplay between various quality indicators and

their impact on educational outcomes. For instance, while many studies focus on specific metrics of quality, such as student performance or faculty qualifications, fewer have examined how these elements interact within broader systemic contexts (Zguir, Dubis, & Koç, 2021).

This review aims to provide a holistic understanding of quality in education by examining key concepts, indicators of quality, and the contribution of quality education to socio-economic development. Specifically, the review explored how quality education influences workforce readiness, economic mobility, and social equity, thereby reinforcing the critical role of education in achieving sustainable development goals (SDGs) (Budihardjo et al., 2021; Žalėnienė & Pereira, 2021). In addition, the review identified challenges associated with maintaining high standards in educational institutions amidst evolving demands, including issues of resource allocation, stakeholder engagement, and institutional accountability.

Therefore, by synthesizing existing research and theoretical frameworks, this review seeks to offer valuable insights into the complexities of educational quality. It will highlight successful strategies and best practices from various educational contexts, providing implications for policymakers and educators aiming to enhance quality in their institutions. Ultimately, this review aspires to contribute to a deeper understanding of quality in education, equipping educational institutions to meet contemporary challenges and deliver meaningful learning experiences that prepare students for the complexities of the modern world.

2. Theorethical foundations

A robust theoretical framework is essential for examining the multifaceted nature of quality in education. One foundational theory is Quality Assurance Theory (QAT), which emphasizes systematic processes to ensure that educational institutions meet predetermined quality standards. Harvey and Green (1993) introduced a multidimensional view of quality in higher education, defining it through various perspectives

such as fitness for purpose and value for sustainable development. This theory facilitates the development of quality assurance frameworks that establish benchmarks and create feedback mechanisms, enabling continuous improvement in educational standards (Moriarty, 2019).

In contrast, Constructivist Learning Theory (CLT) posits that learners actively construct their understanding through experiences and reflections (Zajda & Zajda, 2021). Influential figures like Piaget and Vygotsky emphasized the importance of active engagement and social interaction in learning processes. This theory supports the transition from rote learning to active learning, emphasizing pedagogical practices that foster critical thinking and problem-solving skills (Brusilovsky & Millán, 2015). Through empowering students as active participants, constructivism enhances the overall quality of education and aligns with modern educational goals (Schunk, 2020).

In addition to these foundational theories, contemporary frameworks such as Transformative Learning Theory (TLT) and Digital Learning Theory (DLT) are increasingly relevant in discussions about educational quality. TLT wwas developed by Mezirow in 1991, emphasizes the role of critical reflection in facilitating significant changes in perspective and understanding, particularly in adult education (Taylor, 2007). This approach highlights the importance of fostering an environment where learners can challenge assumptions and engage in meaningful dialogue. Meanwhile, DLT addresses the impact of technology on education, emphasizing the need for quality online and hybrid learning experiences.

Emperical evidence shows that effective digital learning environments must prioritize accessibility, engagement, and interaction to enhance educational outcomes (Bates, 2015; Montenegro-Rueda et al., 2023). Thus, by integrating these contemporary theories, the review provided a comprehensive analysis of the various dimensions of educational quality, addressing indicators, challenges, and contributions to societal development.

3. Review Methdology

The systematic review aimed to critically evaluate literature on quality in education, integrating both foundational and contemporary theories. The primary research questions focused on identifying key theories that shaped the understanding of educational quality, examining indicators and challenges in measuring quality, and exploring the contributions of quality education to societal development. To achieve these objectives, a robust search strategy was employed across multiple databases, including ERIC, JSTOR, Scopus, Web of Science, and Google Scholar. Keywords such as quality in education, quality assurance, educational quality indicators, challnges of education quality, contemporary education quality were guided the search process.

In total, 60 empirical studies were searched, and 40 litratures published in 2020 to 2025 from different contexts in educational quality were reviewed except theorethical reviews. The study selection process involved a two-phase screening, starting with a title and abstract review based on predefined inclusion and exclusion criteria.

The inclusion criteria for this systematic review comprised peer-reviewed articles published within the last 5 years, specifically those that addressed both foundational and contemporary theories of educational quality. Studies were selected based on their focus on indicators, challenges, or impacts related to educational quality.

Conversely, the exclusion criteria eliminated non-peer-reviewed articles and grey literature, as well as publications that concentrated solely on specific educational institutions without broader implications. In addition, articles not available in English were excluded from the review. Lastly, eligible litartures then underwent a full-text review to confirm relevance.

Data extraction utilized a standardized form to capture essential details, including authorship, publication year, methodology, and key findings related to educational quality. The methodological quality of the included studies was assessed to ensure rigor and relevance, focusing on clarity of research questions, appropriateness of study design, and significance of findings.

Data analysis followed a thematic synthesis approach, where common themes across the studies were identified and grouped according to foundational and contemporary theories. A critical appraisal evaluated the strengths and limitations of each study, considering factors like sample size and generalizability. The findings were reported in accordance with PRISMA guidelines, ensuring transparency and reproducibility. The final report summarized key findings, discussed implications for theory and practice, and provided recommendations for future research, acknowledging potential limitations such as publication bias and variability in quality assessments.

4. Results

4.1 Concept of quality education

Numerous studies, including those by Barrett (2006), Kundu (2017), and Madani (2019), highlighted that there remains no consensus on the definition of "quality" in education. The understanding of educational quality evolves over time and is closely linked to societal values. Authors such as Mitra (2002), Burchi (2006), and Jacobsen (2006) described quality education in terms of how effectively educational aims and functions are achieved. For instance, UNESCO (2002) characterized educational aims as the anticipated effects of learning, while functions refer to what schools are expected to accomplish (Razaghizad et al., 2021). This indicates that the notion of educational quality is relative, changing over time and across different contexts due to variations in aims, functions, and the means to achieve them (Lumban Gaol, 2023).

Reports from UNESCO (2002) and Surehh and

Kumaravelu (2017) revealed that many stakeholders such as experts, political authorities, parents, communities, teachers, and education administrators define educational quality through national examinations. This perspective highlights that these assessments specify desired educational outcomes. Furthermore, scholars such as Victoria (2018), Jacobsen (2006), and Eze (2009) explained that education systems set objectives that are implemented in curricula and teachers' guides, making national examination scores a key indicator of high-quality education. Recent research by Chiu (2021) and Al-Adwan et al. (2021) emphasized the importance of holistic approaches to education, integrating technology and sustainability into the framework of educational quality.

Madani (2019), UNICEF (2015), and Barrett et al. (2006) noted that engaging with quality education poses challenges, including difficulties in achieving, improving, and measuring quality. The literature presents numerous and often conflicting definitions of quality, reflecting different conceptualizations. Some educators define quality through a competency approach, focusing on the effectiveness of meeting objectives (Colby & Witt, 2000). Others, like Kundu (2017) and Eze (2009), argue that the concept of quality is elusive, depending on the preferred outcomes of schooling. Despite varying definitions, a common goal across educational systems is to enhance students' cognitive achievements (UNESCO, 2002), with the aim of fostering educated citizens who can uphold societal values.

On the other hand, some educators define quality in contextual terms, emphasizing the influence of cultural traditions, social relations, and economic and political factors (Akareem & Hossien, 2016). For example, Zguir et al. (2021) discussed embedding values of sustainable development into curricula, highlighting the need for context-specific definitions of quality education. Thus, the literature on educational quality is extensive and diverse, reflecting different and sometimes contradictory positions, yet the concern for quality

education is increasingly prominent in educational discourse.

Quality education is often viewed as a multi-faceted concept, with definitions highlighting various elements of the input-process-output model commonly used in education research and policy analysis (UNESCO, 2002). Scholars like Kundu (2017), citing Harvey and Green (1993), identified four key approaches to understanding quality education: quality as excellence, transformative quality, fitness for purpose, and value for money. Campbell and Roznayi (2002) added additional perspectives, such as quality as zero errors and quality as a threshold. Recent discussions by Chan (2023) and Michel-Villarreal et al. (2023) underscored the role of artificial intelligence in enhancing educational quality and providing innovative solutions to traditional challenges.

4.2 Quality Indicators

An analysis of educational quality indicators revealed several internationally recognized measures aimed at determining the appropriate inputs needed to enhance student achievement. UNESCO (2002) emphasized input and process quality measures, particularly focusing on learning outcomes that ultimately improve output quality, such as student achievement. The World Bank equated quality with efficiency, using measures of cognitive achievement to assess educational effectiveness.

Research by OECD (2000), Gideon (2014), and Zuzana (2012) established a strong relationship between students' cognitive achievements and the provision of quality inputs. OECD (2000) identified major areas for improving education quality, including curriculum enhancement, increased learning materials, expanded instructional time, improved teaching methods, and enhanced student capacities. Outputs were described by Michael (2017), Zuzana (2012), and UNESCO (2002) as encompassing achievement proxies such as promotion and completion rates, along with measures of actual knowledge and skills acquired.

Recent studies, such as those by Xu and Ouyang (2022), Crawford and Cifuentes-Faura (2022), Abad-Segura and González-Zamar (2021) highlighted the importance of incorporating AI technologies and sustainability into educational practices. UNESCO (2002) and Matus, Rusu, and Cano (2021) noted that a common approach to measuring output quality focuses on cognitive achievement scores, as enhancing these scores aligns with key educational goals. Process quality, on the other hand, emphasizes the interactions that occur in daily educational delivery (Zuzana, 2012). The quality of teacher-student interactions is critical to the teaching-learning process, which should facilitate optimal learning opportunities.

Classroom conditions, as explained by Zuzana (2016), should support learner-centered instruction, full mastery of lesson content by teachers, and a safe, resource-rich learning environment. The quality of teaching and learning depends on the curriculum's quality, teaching methods, and the resources available to teachers and students (OECD, 2000; Zuzana, 2012; Gideon, 2014). In summary, intervening at the school and classroom levels is crucial for raising the quality of primary education, particularly in Sub-Saharan Africa (Sufani & Sawamura, 2010).

4.3 Function of Quality Education

While the concept of quality education remains contested, it is evident that high-quality education enhances the acquisition of knowledge, skills, and attitudes necessary for achieving significant human goals. Research has established a strong link between quality education and both economic and social development (Mitra, 2004). Better student outcomes are reflected in higher lifetime incomes, with studies by Burchi (2006) and Mitra (2004) indicating that high-quality schooling contributes to national economic development and cultivates strong social values.

Burchi (2006) noted that students who perform

well academically are more likely to pursue further education, leading to higher completion rates across educational levels. As a result, quality education significantly impacts a country's development objectives. Madani (2019) and Mitra (2004) highlighted that schooling contributes to individual skill development and human capital creation, which are directly influenced by public policies (Colby & Witt, 2000). Additionally, the research by Iqbal and Piwowar-Sulej (2022) emphasized sustainable leadership in educational institutions as a mechanism for driving quality improvements.

Moreover, UNESCO (2004) indicated that personal income distribution correlates strongly with educational attainment, suggesting that more schooling generally leads to higher lifetime earnings. Quality education also plays a vital role in economic growth. Burchi (2006) suggested that the quality of the labor force has a more substantial impact on economic growth than human capital or school quality alone. Furthermore, Mitra (2004), Jacobsen (2006), and Victoria (2018) indicated that a more educated society is likely to experience higher rates of innovation and productivity, as well as quicker adoption of new technologies.

4.4 Challenges of Quality Education

Challenges to quality education are multifaceted and have significant implications (Suresh & Kumaravelu, 2017). These challenges can be organized thematically into several categories: knowledge, decentralization and management, resource availability, and social inclusion.

4.4.1. Challenges of Knowledge

The knowledge society poses challenges to the fundamental purposes of school education, particularly in relation to work, social life, and lifelong learning (Sifuna & Sawamura, 2010). Understanding these challenges necessitates a rethinking of traditional concepts of knowledge and the knowledge development process (Sigalla King, 2015; UNESCO, 2002). Challenges manifest through knowledge transmission, delivery by teachers, and acquisition by students, raising questions about curriculum content and assessment practices.

4.4.2. Challenges of Decentralization and Management

Decentralization presents another set of challenges in quality education. Over the past few decades, many educational systems have devolved authority to schools, demanding increased accountability at the local level (Suresh & Kumaravelu, 2017). The degree of decentralization varies among countries, with some regions granting significant autonomy while others retain decision-making at the national level. This trend aims to empower stakeholders and ensure they have a say in defining quality in education.

4.4.3. The Resource Challenge

Resource allocation remains a critical challenge within educational systems. Education is increasingly perceived as an investment (UNESCO, 2002), yet resource demands are rising at both ends of the educational spectrum. As more individuals engage with the education system for extended periods, the pressure on resources intensifies (Sufani & Sawamura, 2010). The availability of resources is essential for supporting lifelong learning and enabling active societal participation.

4.4.4. The Challenge of Social Inclusion

All education systems strive for inclusivity, yet achieving this goal remains a challenge. Research by Eze (2009) indicates that no system is entirely successful in providing equitable access to education, and many young people find curricula and learning environments irrelevant to their lives. Shimbergenovna (2022) further discussed the development of inclusive education in preschool settings, emphasizing the need for tailored approaches to meet diverse student needs.

4.5. Measures to Improve the Quality of Education

4.5.1. Accreditation System

Promoting quality in education has been a central focus of educational systems worldwide. UNICEF (2015) recommends establishing national accreditation bodies to uphold education standards, particularly in higher education. Accreditation assesses institutional competence across various dimensions, including academic environment, infrastructure, and resources. This system encourages educational institutions to innovate, engage in self-evaluation, and commit to continuous quality improvement.

4.5.2. Adapting Education Quality Improvement Programs

UNESCO (2002) identified quality improvement programs that focus on various aspects, including staff development, curriculum enhancement, and resource sharing. Implementing these quality improvement measures can help address existing challenges and enhance educational outcomes.

4.5.3. Learning Instruction, Material, and Infrastructure

Higher education institutions, particularly universities, are actively addressing challenges by ensuring instructional materials are well-structured to promote student understanding (Kundu, 2017). In developing countries, the challenge of accommodating large student populations necessitates innovative approaches to resource allocation (Sifuna & Sawamura, 2010). Research by Budihardjo et al. (2021) also highlighted strategies for sustainability in higher education institutions.

3.5.4. International Collaboration

Collaboration between foreign universities and national institutions aims to meet growing educational demands by leveraging shared resources and expertise (UNICEF, 2015; UNESCO, 2002; Demir et al., 2021). These partnerships not only enhance student and faculty global perspectives but also foster research collaboration, helping institutions stay current with international developments.

4.5.5. Financial Support

Developing countries are addressing resource scarcity by seeking grants from various non-governmental organizations. Partnerships between NGOs and educational institutions support students with high academic performance, enabling them to pursue further studies and contribute to the improvement of higher education in their home countries (UNESCO, 2002; UNICEF, 2015). The influence of financial support on quality education delivery was also examined in recent studies by Ndaula et al. (2025), emphasizing the importance of sustainable funding mechanisms in the education sector.

5. Conclusions

This review explored the concepts and indicators of quality in education, providing a framework for understanding educational quality from various perspectives. The literature review incorporated major journal articles, conference proceedings, and books, emphasizing the importance of quality within educational institutions. The primary conclusion is that while most studies maintain empirical rigor, the concept of quality education is expansive and multi-dimensional, with varying structures identified across different studies. The literature reveals several dimensions used to assess perceived quality, with a notable convergence around the input-process-output model.

It was observed that many studies focus predominantly on learners' achievements, often overlooking the perspectives of other stakeholders in the education system. Additionally, the literature highlights socio-economic functions associated with quality education and identifies common challenges, such as resource limitations, knowledge acquisition processes, and the need for decentralization and empowerment within institutions. Threfore, to address these challenges, the implementation of accreditation mechanisms,

6. Implications

The findings of this review have significant implications for policymakers, educational administrators, and stakeholders involved in the educational sector. Recognizing the multi-dimensional nature of quality education can lead to more comprehensive policy frameworks that encompass various stakeholders' perspectives. By prioritizing input-process-output dimensions, educational institutions can better align their strategies with the essential components of quality. Furthermore, addressing the socio-economic aspects of quality education can contribute to more equitable and inclusive educational practices. The emphasis on accreditation and international collaboration can enhance the quality assurance mechanisms within educational institutions, fostering continuous improvement and innovation. These measures can help institutions adapt to changing educational demands and improve overall educational outcomes.

7. Limitations and future research direction

Despite the rigor of this review, several limitations should be acknowledged. The literature review primarily focused on English-language sources, potentially excluding relevant studies published in other languages. Additionally, it may not have captured all dimensions of quality education due to the vast and diverse nature of the literature. The reliance on existing studies could introduce biases based on the specific contexts in which the research was conducted, limiting the generalizability of the findings.

Future research should aim to explore quality education from a more inclusive range of perspectives, particularly those of various stakeholders beyond learners, such as parents, educators, and policymakers. Longitudinal studies could provide insights into how quality education evolves over time and the impact of specific interventions. Further investigation into the socio-economic functions of quality education and their implications for policy and practice is warranted.

Moreover, research should focus on developing and validating comprehensive frameworks that integrate diverse dimensions of quality education, including those related to technology integration, sustainability, and social justice. Finally, comparative studies across different educational contexts and systems could enrich the understanding of quality indicators and challenges, providing valuable insights for global educational improvement strategies.

Conflict of Interes

We hereby declare that there are no conflicts of interest related to this research.

References

Abad-Segura, E., & González-Zamar, M. D. (2021). Sustainable economic development in higher education institutions: A global analysis within the SDGs framework. *Journal of Cleaner Production, 294*, 126133. https://doi.org/10.1016/j.jclepro.2021.126133

Akareem, H. S., & Hossein, S. S. (2016). Determinants of education quality: What makes students' perceptions differ? *Open Review of Educational Research*.

Bates, A. W. (2015). *Teaching in a digital age: Guidelines for designing teaching and learning for a digital age*. Tony Bates Associates Ltd.

Barrett, A., et al. (2006). The concept of quality education: A review of the international literature on the concept of quality in education. *University of Bristol, UK*.

Brundiers, K., Barth, M., Cebrián, G., Cohen, M., Diaz, L., Doucette-Remington,

S., ... & Zint, M. (2021). Key competencies in sustainability in higher education—toward an agreed-upon reference framework. *Sustainability Science, 16*, 13-29. https://doi.org/10.1007/s11625-020-00429-9

Brusilovsky, P., & Millán, E. (2015). User modeling in personalized e-learning. In *User Modeling and Personalization* (pp. 1-8). Springer. https://doi.org/10.1007/978-3-319-22356-9_1

Burchi, F. (2006). Identifying the role of education in socio-economic development. *University of Rome Tre, International conference on human and economic resource*.

Chan, C. K. Y. (2023). A comprehensive AI policy education framework for university teaching and learning. *International Journal of Educational Technology in Higher Education, 20*(1), 38. https://doi.org/10.1186/s41239-023-00306-0

Chiu, T. K. (2021). A holistic approach to the design of artificial intelligence (AI) education for K-12 schools. *TechTrends, 65*(5), 796-807. https://doi.org/10.1007/s11528-021-00607-9

Colby, T., & Witt, M. (2000). Defining quality in education: A paper presented by UNICEF at the meeting of the International Working Group on Education, Florence, Italy.

Crawford, J., & Cifuentes-Faura, J. (2022). Sustainability in higher education during the COVID-19 pandemic: A systematic review. *Sustainability, 14*(3), 1879. https://doi.org/10.3390/su14031879

Demir, A., Maroof, L., Sabbah Khan, N. U., & Ali, B. J. (2021). The role of E-service quality in shaping online meeting platforms: A case study from the higher education sector. *Journal of Applied Research in Higher Education, 13*(5), 1436-1463. https://doi.org/10.1108/JARHE-06-2020-0207

Eze, S. G. (2009). Features of quality education. Enugu State University. Retrieved from http://www.researchgate.net/publication

Gideon, L. M. (2014). School-based factors influencing quality of education in public secondary schools in Kitui County, Kenya. *Nairobi*.

Harvey, L., & Green, D. (1993). Defining quality. *Assessment & Evaluation in Higher Education, 18*(1), 9-34. https://doi.org/10.1080/0260293930180102

Jacobsen, R. (2006). Goals of education. *Michigan State University*. Retrieved from http://www.researchgate.net/publication/275514778

Kundu, G. (2017). Quality in higher education from different perspectives: A literature review. *VIT University*.

Lumban Gaol, N. T. (2023). School leadership in Indonesia: A systematic literature review. *Educational Management Administration & Leadership, 51*(4), 831-848. https://doi.org/10.1177/17411432211037269

Maki, P. L. (2023). *Assessing for learning: Building a sustainable commitment across the institution*. Routledge.

Madani, R. A. (2019). Analysis of education quality: A goal of education for all.

Michael, W. (2017). Quality improvement of early primary education in Ethiopia. *University of Oslo*.

Mezirow, J. (1991). *Transformative dimensions of adult learning*. Jossey-Bass.

Montenegro-Rueda, M., Fernández-Cerero, J., Fernández-Batanero, J. M., & López-Meneses, E. (2023). Impact of the implementation of ChatGPT in education: A systematic review. *Computers, 12*(8), 153. https://doi.org/10.3390/computers120800153

Moriarty, J. (2019). Quality assurance in higher education: A global perspective. *Quality in Higher Education, 25*(1), 1-15. https://doi.org/10.1080/13538322.2019.1571067

Negri, M., Cagno, E., Colicchia, C., & Sarkis, J. (2021). Integrating sustainability and resilience in the supply chain: A systematic literature review and a research agenda. *Business Strategy and the Environment, 30*(7), 2858-2886. https://doi.org/10.1002/bse.2846

Ndaula, L., Suru, M. H., & Swai, C. Z. (2025). The influence of capitation grants on quality education delivery in Tanzania public secondary schools during the time of inflation. *Heliyon*. https://doi.org/10.1016/j.heliyon.2025.e02254

Razaghizad, A., Windle, S. B., Filion, K. B., Gore, G., Kudrina, I., Paraskevopoulos, E., ... & Eisenberg, M. J. (2021). The effect of overdose education and naloxone distribution: An umbrella review of systematic reviews. *American Journal of Public Health, 111*(8), e1-e12. https://doi.org/10.2105/AJPH.2021.306339

Schunk, D. H. (2020). *Learning theories: An educational perspective* (8th ed.). Pearson.

Sifuna, D. N., & Sawamura, N. (2010). Challenges of quality education in Sub-Saharan Africa: Some key issues. *Osaka University, Japan*.

Sigalla King, N. (2015). The challenges of quality education in Africa: Some hints and tips.

Suresh, E. S., & Kumaravelu, A. (2017). The quality of education and its challenges in developing countries. *American Society for Engineering Education*.

Taylor, E. W. (2007). An update of transformative learning theory. *New Directions for Adult and Continuing Education, 2007*(114), 5-15. https://doi.org/10.1002/ace.249

Tien, N. H., Ngoc, N. M., Trang, T. T. T., & Mai, N. P. (2022). Sustainable development of higher education institutions in developing countries: Comparative analysis of Poland and Vietnam. *Contemporary Economics, 16*(2). https://doi.org/10.5709/ce.1897-9254.128

UNESCO. (2002). Challenges of quality of education in Europe.

UNICEF. (2015). Quality education: Why it matters. Retrieved from http://www.un.org/sustainabledevelopment

Victoria, A. (2018). Education goals. Retrieved from http://www.researchgate.net/publication/325742308

Žalėnienė, I., & Pereira, P. (2021). Higher education for sustainability: A global perspective. *Geography and Sustainability, 2*(2), 99-106. https://doi.org/10.1016/j.geosus.2021.03.002

Zezana, T. (2012). Quality indicators in ed-

ucation. *National Institute for Education*.

Zajda, J., & Zajda, J. (2021). Constructivist learning theory and creating effective learning environments. In *Globalisation and education reforms: Creating effective learning environments* (pp. 35-50). Springer.

Zguir, M. F., Dubis, S., & Koç, M. (2021). Embedding education for sustainable development (ESD) and SDGs values in curriculum: A comparative review on Qatar, Singapore, and New Zealand. *Journal of Cleaner Production, 319*, 128534. https://doi.org/10.1016/j.jclepro.2021.128534