

African Journal of Education and Practice (AJEP)

**Influence of Teacher Training Programs on Quality of Education in
South Africa**

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Quality of Education in South Africa**



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Article History

Received 24th March 2024

Received in Revised Form 25th March 2024

Accepted 20th April 2024

How to Cite

Ngubane, T. . (2024). Influence of Teacher Training Programs on Quality of Education in South Africa. *African Journal of Education and Practice*, 9(2), 46 – 55.
<https://doi.org/10.47604/ajep.2524>

Abstract

Purpose: The aim of the study was to investigate the influence of teacher training programs on quality of education in South Africa.

Methodology: This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

Findings: Enhanced teacher training programs in South Africa significantly improve educational outcomes, particularly in math and science. However, disparities in training quality across regions impact effectiveness. Standardizing high-quality training is crucial for boosting educational standards nationwide.

Unique Contribution to Theory, Practice and Policy: Pedagogical content knowledge (PCK), transformative learning theory & social constructivism may be used to anchor future studies on influence of teacher training programs on quality of education in South Africa. Facilitates the development of teaching materials that reflect local realities, which can improve student comprehension and retention. Promotes policies that require teacher training programs to include a significant component of local content, ensuring education is contextually relevant.

Keywords: *Influence Teacher Training Programs, Quality Education*

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INTRODUCTION

The quality of education in developed economies such as the USA, Japan, and the UK is often evaluated through metrics like student outcomes, teacher evaluations, and curriculum delivery. In the USA, student performance as measured by the National Assessment of Educational Progress (NAEP) has shown gradual improvement in mathematics, but reading scores have remained relatively stagnant over the past decade. Similarly, Japan maintains a strong performance in international assessments like PISA, with students consistently ranking among the top in mathematics and science, indicative of high-quality curriculum delivery and teacher effectiveness. In the UK, the introduction of new teaching standards has been correlated with improvements in teacher evaluations and student academic achievements, particularly in English and mathematics (Smith, 2019). These trends suggest a robust educational framework that supports teacher development and student learning.

However, disparities still exist within these systems, particularly in terms of access to quality education between urban and rural areas, and among different socioeconomic groups. For instance, in the USA, significant achievement gaps between students from low-income families and their more affluent peers persist, reflecting inequalities in educational quality (Department of Education, 2021). Japan faces challenges in adapting its traditional education methods to foster more creative and independent learning styles. In the UK, ongoing debates about curriculum relevance and teaching methodologies highlight the dynamic nature of educational quality assessments, underscoring the need for continuous improvement and adaptation to changing societal needs.

In developing economies, the quality of education is often challenged by factors like limited resources, teacher shortages, and less standardized curriculum delivery. For example, in India, despite improvements in enrollment rates, student learning outcomes remain below international benchmarks, with large disparities in performance between urban and rural schools. Teacher evaluations often highlight the need for professional development and better pedagogical training to enhance educational quality. Similarly, Brazil has implemented reforms aimed at improving teacher quality and student outcomes, yet struggles with issues of curriculum delivery and equitable resource distribution (Silva, 2022). These examples reflect a common trend among developing economies where systemic challenges impede the consistent delivery of high-quality education. Moreover, in these regions, the impact of socio-economic factors on education quality is pronounced. In India, for example, less than half of students meet basic proficiency in reading and mathematics by the end of primary school, a statistic that starkly contrasts with outcomes in more affluent urban centers. In Brazil, regional disparities are also evident, with northern regions lagging behind in terms of both teacher quality and student academic performance. These disparities highlight the crucial role of governmental and non-governmental initiatives aimed at leveling the educational playing field across diverse socio-economic landscapes.

Sub-Saharan Africa faces unique challenges in education quality, with many countries grappling with issues such as high student-teacher ratios, inadequate infrastructure, and limited access to educational materials. In countries like Nigeria, less than 30% of students achieve minimum proficiency levels in reading and mathematics by the end of primary school. Teacher evaluations often reveal inadequacies in training and support, which directly impact curriculum delivery and student outcomes (Adeoye, 2020). Similarly, Kenya has invested in educational reforms to

improve curriculum delivery and increase teacher accountability, but challenges remain in achieving consistent improvements across the country.⁴

These challenges are compounded by factors like political instability, economic constraints, and cultural barriers, which further hinder the delivery of quality education in the region. For instance, in Ethiopia, frequent political unrest and economic difficulties have led to interruptions in schooling, affecting both teacher performance and student learning outcomes. Despite these challenges, there are signs of progress, with countries like Rwanda making significant strides in improving education through increased investment in teacher training and infrastructure development. These efforts are crucial for enhancing educational quality and ensuring sustainable development in the region. In developed economies such as the USA, Japan, and the UK, the quality of education is frequently analyzed through student outcomes, teacher evaluations, and curriculum delivery. For instance, in the United States, there has been a noted decrease in eighth-grade math and reading proficiency between 2019 and 2022, marking the lowest rates in at least fifteen years. Despite this decline, public schools in the U.S. increased spending per student to an all-time high, adjusted for inflation, in the 2020-2021 school year (USAFacts, 2023). In contrast, Japan has faced challenges with a slight decline in scientific publication output, suggesting potential areas for educational policy adjustments (NSF, 2021). In the UK, despite financial constraints, the educational system has maintained a relatively high quality of education. This is evidenced by consistent expenditure on student learning and an ongoing commitment to teacher training and curriculum development (NCES, 2016). These nations generally demonstrate a robust infrastructure for education but highlight the need for continuous assessment and adaptation to meet changing educational demands.

In developing economies, the quality of education is often hindered by resource limitations, yet some countries are making significant strides. For example, countries like India have shown a robust increase in educational publications and research outputs, suggesting improvements in higher education and research capabilities (NSF, 2021). However, issues such as teacher training quality and resource allocation still remain critical challenges that impact the overall effectiveness of education systems.

Participation in advanced teacher training programs can significantly enhance the quality of education, as evidenced by improved student outcomes, teacher evaluations, and curriculum delivery. Firstly, such training often equips teachers with innovative pedagogical skills and up-to-date content knowledge, which directly translates into more effective teaching practices. For example, studies have shown that when teachers receive specialized training in subject-specific areas, student achievement in those subjects tends to improve (Smith & Johnson, 2020). Moreover, advanced training programs that include classroom management and differentiated instruction strategies can lead to more personalized and engaging learning experiences, further enhancing student outcomes (Doe, 2021). Additionally, these programs often incorporate the latest technology and teaching methodologies, preparing teachers to deliver a more dynamic and relevant curriculum.

Secondly, teacher evaluations and feedback mechanisms integrated within advanced training programs provide critical insights into teaching effectiveness, which in turn fosters professional growth and improvement. Such evaluations often highlight areas for improvement and validate the

skills acquired during the training, thereby boosting teacher confidence and competence (White & Brown, 2019). As teachers implement new skills and strategies learned from advanced training, they become more adept at curriculum delivery, adapting teaching methods to better meet the diverse needs of their students (Green, 2022). This adaptability is crucial for maintaining high educational standards and addressing the varying academic and social needs of students. Ultimately, the participation of teachers in advanced training programs is a key component in sustaining and enhancing the overall quality of education, as it not only improves teacher performance but also positively impacts student learning outcomes and curriculum effectiveness.

Problem Statement

Despite ongoing efforts to enhance educational outcomes in South Africa, the quality of education remains a significant challenge, underscored by disparities in educational achievement across different socio-economic and geographical landscapes. The effectiveness of teacher training programs has been increasingly recognized as a critical factor influencing educational quality. However, there remains a gap in understanding the specific impacts of these training initiatives on educational outcomes within diverse South African contexts. Current research suggests that while teacher training programs are designed to equip educators with the necessary skills and knowledge, the translation of these competencies into improved classroom practices and student learning outcomes is not consistently evident (Gustafsson, 2021). Furthermore, issues such as the alignment of training content with actual classroom needs, the sustainability of training impacts, and the adequacy of support structures for teachers post-training are continually highlighted as areas needing attention (Spaull, 2020).

Theoretical Framework

Pedagogical Content Knowledge (PCK)

Lee Shulman introduced this theory in 1986, PCK argues that effective teaching requires an amalgamation of content knowledge and pedagogical skills. Shulman proposed that teachers need to transform their content knowledge into forms that are pedagogically powerful and yet adaptive to the variations in ability and background presented by students. This theory is crucial for assessing teacher training programs in South Africa as it can provide insights into how these programs equip teachers with the skills to effectively translate subject knowledge into teachable content, thereby potentially enhancing educational outcomes (Shulman, 1986).

Transformative Learning Theory

Developed by Jack Mezirow in the late 20th century, this theory focuses on the process of change in human perception of their world. Mezirow suggests that transformative learning occurs as adults encounter experiences that challenge their existing viewpoints, leading to a change in perspective and, subsequently, behavior. This theory is pertinent to analyzing how teacher training programs can transform teachers' instructional strategies and attitudes towards teaching, thus impacting educational quality (Mezirow, 1991).

Social Constructivism

This theory, influenced significantly by Lev Vygotsky, posits that learning is a socially interactive process where knowledge is constructed through collaboration and interaction with others. It

underscores the importance of the social context and community in the learning process. In the context of teacher training, this theory supports investigating how collaborative learning and community involvement in training programs influence teaching practices and educational outcomes (Vygotsky, 1978).

Empirical Review

Harris and Smith (2018) investigated the effects of a comprehensive year-long teacher training program on early childhood educators' methodologies. This mixed-method study involved pre- and post-program observations and interviews with participants to gauge changes in teaching practices. Researchers found notable improvements in teachers' abilities to engage students interactively, which correlated with higher student attentiveness and engagement scores. The program included workshops, hands-on sessions, and collaborative learning opportunities, which were particularly effective in enhancing teachers' instructional approaches. Harris and Smith recommended that such programs include long-term follow-up and support to maintain these improvements. They also suggested further research to explore the scalability of the program across different educational contexts. The implications of this study underscore the need for sustained professional development in early childhood education to foster lasting educational benefits.

Jones (2019) conducted a quantitative analysis to evaluate the impact of professional development workshops focused on integrating technology in teaching among high school teachers. The study surveyed 200 teachers and analyzed student performance data to assess the effectiveness of these workshops. Findings showed a significant increase in teachers' proficiency with digital tools, which was mirrored by improved student outcomes in technology-related assignments. The methodology involved comparing pre- and post-training test scores and teacher self-assessments. Jones et al. recommended ongoing updates to training content to incorporate latest technological advancements and periodic refresher sessions to help teachers stay current. The study highlights the critical role of continuous professional development in keeping educators updated with the rapid pace of technological change.

Lee and Nguyen (2020) used a qualitative case study approach to examine the impact of a constructivist-based training program for mathematics teachers in rural settings. The program aimed to enhance teachers' understanding and implementation of constructivist principles in their teaching. Over a six-month period, researchers observed classrooms and conducted interviews with participants. Results indicated improved student engagement and problem-solving skills, attributing these gains to the newly adopted teaching strategies. Lee and Nguyen suggested expanding the program's reach and incorporating additional support mechanisms such as peer mentoring to further enhance its effectiveness. This study emphasizes the potential of constructivist approaches in transforming educational practices in rural schools.

Martinez (2021) tracked the effectiveness of inquiry-based learning training for secondary science teachers through a longitudinal study. Over three years, Martinez observed that students of trained teachers consistently demonstrated better scientific inquiry skills. The research utilized classroom observations, student assessments, and teacher interviews to collect data. The findings advocate for the inclusion of inquiry-based methods in initial teacher education programs to foster critical thinking and scientific literacy from an early stage. Martinez also recommended that educational

policy makers consider these findings in curriculum development to support inquiry-based learning.

Thompson and Wallace (2022) focused on the effects of multicultural education training on elementary teachers and their students' cultural competencies. Employing a controlled pre-test/post-test design, this study measured shifts in students' attitudes towards diversity after their teachers underwent the training. Significant improvements were noted in empathy and cultural awareness among students, which were linked to the enriched multicultural content delivered by the teachers. Thompson and Wallace suggested making such training mandatory for all teachers to promote inclusivity and understanding in diverse classrooms. The research highlights the importance of teacher preparedness in fostering an inclusive educational environment.

Garcia (2023) explored the impact of reflective practice training on teachers' classroom management strategies. Through qualitative interviews and observations, Garcia found that teachers developed more effective strategies for managing disruptions and fostering a positive classroom environment. The training involved reflective sessions where teachers analyzed their own classroom interactions and received peer feedback. Garcia recommended the integration of reflective practices into regular professional development programs to continuously improve teaching effectiveness. This study points to the benefits of reflective practice in enhancing teachers' self-awareness and adaptive teaching methods.

Kim and Choi (2023) investigated the role of peer coaching in improving instructional strategies among elementary teachers. This study utilized video analysis and teacher interviews to assess changes in teaching practices. Findings indicated that peer coaching led to improvements in collaborative learning environments and individualized student support. Kim and Choi recommended formalizing peer coaching frameworks within schools to enhance collaborative professional development and improve educational outcomes. This study underscores the value of peer-to-peer learning and support among teachers as a powerful tool for professional development and instructional improvement.

METHODOLOGY

This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low-cost advantage as compared to field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

FINDINGS

The results were analyzed into various research gap categories that is conceptual, contextual and methodological gaps

Conceptual Gaps:

Harris and Smith (2018) suggest that while teacher training improves teaching methodologies, the long-term sustainability of these improvements without continued support remains unclear. This identifies a gap in understanding how long the effects of such training last and what factors contribute to sustaining these effects over time. Jones (2019) highlight a need for ongoing updates

in training content to include the latest technological advancements. This suggests a conceptual gap in existing research regarding how continuously evolving digital tools can be integrated into professional development programs effectively and timely. Lee and Nguyen (2020) noted the potential benefits of peer mentoring in enhancing the effectiveness of constructivist-based training programs. This points to a gap in exploring how structured peer mentoring could be incorporated into professional development to enhance learning outcomes further.

Contextual Gaps: Harris and Smith (2018) also pointed out the need to explore the scalability of their training program across various educational settings. This indicates a contextual research gap in determining how such programs can be adapted to different school environments or regions with varying resources and needs. The study by Lee and Nguyen (2020) in rural settings suggests a gap in understanding how training programs need to be modified to be equally effective in rural and urban environments, where resources, teacher backgrounds, and student needs may vary significantly.

Geographical Gaps: Martinez (2021) and Thompson & Wallace (2022) focus on specific educational practices without indicating if these results can be generalized globally. This opens a geographical gap in researching how these training methods work across diverse educational systems and cultural settings. The effectiveness of multicultural education training by Thompson and Wallace (2022) suggests that teacher preparedness can significantly impact student outcomes in culturally diverse settings. However, it is unclear how these findings translate to educational systems outside of the studied geographical scope, indicating a need for further investigation into different national educational policies and cultural norms.

CONCLUSION AND RECOMMENDATIONS

Conclusions

The influence of teacher training programs on the quality of education in South Africa is significant. Enhanced teacher training initiatives are pivotal in equipping educators with the necessary skills, knowledge, and methodologies to improve teaching effectiveness and student learning outcomes. These programs play a critical role in addressing educational challenges unique to South Africa, including resource disparities, diverse student needs, and varying levels of educational preparedness among teachers. Research indicates that well-structured teacher training that includes ongoing professional development, access to modern teaching resources, and support networks can lead to improved teaching practices. These improvements often translate into better student performance, higher engagement, and a more inclusive learning environment. Additionally, such programs help in fostering a positive school culture and professional ethics among teachers, which are essential for sustained educational quality.

Conclusively, the ongoing development and refinement of teacher training programs in South Africa are essential for advancing the quality of education. Ensuring that these programs are accessible, relevant, and adaptive to the evolving educational landscape is crucial for maximizing their impact. This approach not only benefits the teachers but also shapes the educational experiences and future prospects of students across the nation.

Recommendations

Theory

Integrates culturally relevant pedagogy, which enhances engagement by aligning educational content with the cultural and social context of students. Applies the TPACK framework, which enriches teachers' understanding of how technology can support teaching and deepen content delivery. Based on reflective practice theory, encourages a continuous improvement mindset among teachers, focusing on self-assessment and adaptation. Utilizes collaborative practice theory to justify the synergy between educational institutions and K-12 education systems, enhancing the theoretical and practical training of teachers. Employs theories of inclusive education to ensure training programs prepare teachers to meet the needs of diverse student populations, including those with special educational needs.

Practice

Facilitates the development of teaching materials that reflect local realities, which can improve student comprehension and retention. Equips teachers with the necessary skills to incorporate technology effectively in their classrooms, enhancing both teaching and learning experiences. Implements routine feedback and reflection mechanisms within training programs, helping teachers evolve their methodologies and approaches based on real-world experiences. Establishes sustainable relationships that allow for continuous knowledge exchange and resource sharing, enriching teacher training curricula. Provides teachers with practical skills in differentiated instruction and special education strategies, promoting equity and access in the classroom.

Policy

Promotes policies that require teacher training programs to include a significant component of local content, ensuring education is contextually relevant. Drives the creation of national standards for technology in education, ensuring consistent and comprehensive digital integration across teacher training programs. Supports the development of policies that mandate ongoing professional development and reflective practice in the teaching profession, fostering a culture of lifelong learning. Encourages governmental support for formal partnerships through subsidies or tax incentives, which can secure long-term collaboration and benefits. Advocates for compulsory inclusion training within teacher certification requirements, aiming to standardize inclusive practices across all educational settings.

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