Art. #2721, 11 pages, https://doi.org/10.15700/saje.v45n4a2721

Bridging the skills divide: Evaluating the effectiveness of lifelong learning initiatives in South Africa

Rudzani Israel Lumadi
Department of Educational Leadership and Management, School of Educational Studies, University of South Africa, Pretoria, South Africa
lumadri@unisa.ac.za

Abstract
Rapid technological improvements, globalisation, and demographic changes are causing significant shifts in the global workforce, creating sharp skills gaps that impact both individual employability and organisational competitiveness. Initiatives for lifelong learning have emerged as a crucial means of closing these gaps and empowering people to adapt to changing workplace demands. Both individuals and organisations must be committed to investing in ongoing education and training programmes to achieve such development. Companies can enhance their employees' skills, stimulate innovation, and maintain a competitive edge in the market by fostering a learning culture. In the study reported on here I explored the effectiveness of these programmes in closing skills gaps in the Niani district of the Limpopo province, South Africa, by using a qualitative approach that foregrounds participants' narratives and lived experiences. Twenty individuals from various fields, including education (6 principals and 4 teachers), information technology (3 IT specialists and 2 trainers), and manufacturing (3 industry experts and 2 trainers), participated in semi-structured interviews as part of a qualitative case study. Through a thematic analysis I identified a lack of knowledge about available learning possibilities, restricted resource access, and a lack of congruence between training programmes and labour market demands. According to the survey, current programmes have encouraged lifelong learning in the neighbourhood. To boost the effectiveness of lifelong learning initiatives, I suggest expanding funding for educational programmes, ensuring that the curriculum is tailored to industry demands, and launching outreach activities to enhance awareness of the value of lifetime learning.

Keywords: educational initiatives; lifelong learning; skills gaps; teacher development; workforce readiness

Introduction
The labour force in South Africa's Limpopo province is presently undergoing a period of significant change. Industries are changing at an unprecedented pace due to global economic restructuring and rapid technological breakthroughs. In addition to changing the available employment types, these advances have heightened the need for both soft and technical skills in various industries. As a result, many people are ill-prepared for the contemporary labour market, and a lack of skills is becoming a significant obstacle to economic growth and employability. The aspirations of the populace have historically been challenging for the South African education and training system to meet, particularly in rural areas like Limpopo, which are underserved. Long-standing difficulties in skills development have been brought about by socio-economic inequality, the legacy of apartheid, and unequal access to high quality. Due to structural imbalances in the labour market brought on by these historical circumstances, a significant portion of the workforce lacks the qualifications or skills required for rewarding jobs. The underfunding of technical and vocational education, combined with the slow pace of education reform, has exacerbated these disparities (Chari, 2024).

In response to these challenges, lifelong learning has gained popularity as a strategic approach to addressing them. Lifelong learning is the continuous acquisition of skills and knowledge throughout an individual's life, encompassing formal, informal, and non-formal education. These frameworks emphasise the significance of creating a flexible workforce through readily available and adjustable learning pathways. Numerous programmes for lifelong learning have been implemented throughout South Africa, particularly in Limpopo, to bridge the skills gap by matching industry demands with educational options. Nevertheless, the impact and execution of these efforts continue to be uneven and inadequately assessed (Klopp, Trimble & Wiseman, 2022).

Research by Kouskoura, Kalliontzi, Skalkos and Bakouros (2024) assess the condition of the workforce and the availability of opportunities for further education in South Africa, shedding light on these dynamics. The study, in which a mixed-methods approach that combined industry surveys and qualitative interviews was employed, highlighted the ongoing discrepancy between the skills taught in schools and those required by employers. The authors emphasise the need to systematically align curricula with employment trends to make lifelong learning programmes responsive and relevant. This call aligns with South Africa's Human Resource Development Strategy (HRDS-SA) 2030 goals, which promote integrated skills planning and enhanced coordination between industry and training providers. The success of lifelong learning has been hindered by several issues, despite its potential. For example, low public knowledge of lifelong learning options, inadequate finance, and restricted access to educational infrastructure have all become significant obstacles in the Niani district. Local study participants have frequently demanded more funding for education, curriculum revisions to better meet industry demands, and the launch of focused outreach initiatives.

These results are consistent with the Department of Higher Education and Training's (DHET) skills strategy, which recognises systemic and regional disparities as significant barriers to fair access to lifelong learning. Training initiatives alone will not suffice to close the skills gap. Pouliou (2024) asserts that investments in lifelong learning and vocational education provide significant advantages to businesses, society, and individuals. These investments may boost economic growth, encourage innovation, and increase employability. This aligns with the tenets of the National Qualifications Framework (NQF) and the South African Qualifications Authority (SAQA), which support flexible learning pathways, the validation of non-formal learning, and recognition of prior learning (RPL), all of which are crucial to the success of lifelong learning programmes. With a particular focus on the Niani district, I aimed to assess how effectively lifelong learning programmes in the Limpopo province can close the skills gaps. I examined how important stakeholders perceived the conception, implementation, and delivery of these projects. Additionally, I examined how well they met labour market demands and evaluated the obstacles that restricted their influence and reach. The aim with the project was to provide evidence-based insights to inform the development of more effective lifelong learning policies and practices that align with national development goals and policy directives.

The goal with this research was to contribute to developing long-term plans that foster lifelong learning and skills development in South Africa. I aimed to foster more inclusive and responsive education systems by examining the structural, institutional, and community-level factors that influence the performance of lifelong learning initiatives. In addition to being an educational objective, closing the skills gap through lifelong learning is also a business necessity for promoting development, lowering inequality, and equipping people to succeed in a changing global workforce. Evidence from Green and Du Plessis (2023) shows that skilled employment drives economic growth far more than semi- or low-skilled work, reinforcing the urgency of targeted interventions and investment in technical and vocational education. López Peláez, Aramendia-Muneta and Erro-Garcés (2023) highlight persistent disparities in human capital across gender, race, geography, and income, underscoring the equity dimension of these strategies. Historical and policy analyses (Kraak & Schalk, 2024) trace the evolution of national skills frameworks, emphasising the need for cross-sector collaboration. The HRDS-SA (Department of Education, 2009) links education, skills, innovation, and equity, while its alignment with the New Growth Path and the National Development Plan (NDP) 2030 positions local initiatives not merely as technical training, but as justice-driven contributions to reducing inequality, fostering inclusive growth, and unlocking human potential.

Research Question

How effective are lifelong learning initiatives in addressing skills gaps and enhancing the workplace?

Rationale of the Study

The rapid evolution of industries due to technological advancements and economic shifts has resulted in significant skills gaps within the workforce. Lifelong learning initiatives address these gaps by providing continuous education and training opportunities, enabling individuals to acquire new competencies and adapt to changing job requirements. Evaluating the effectiveness of these initiatives is essential to ensure that they meet the evolving needs of both individuals and industries. Such evaluations may inform policy decisions, optimise resource allocation, and enhance programme designs to better serve the workforce.

Moreover, understanding the impact of lifelong learning initiatives is crucial for promoting social equity and economic inclusion. By assessing how these programmes contribute to bridging skills gaps, stakeholders may identify best practices and areas needing improvement, ensuring that all individuals have access to quality learning opportunities. This is particularly important in regions facing economic challenges, where effective lifelong learning programmes can play a pivotal role in revitalising communities and fostering sustainable development.

Literature Review

Lifelong learning has emerged as a pivotal strategy for enhancing workforce adaptability and addressing skills gaps in rapidly evolving professional landscapes. Chaker and Damak (2024) emphasise that lifelong learning initiatives are no longer optional but essential in bridging the widening skills gap across global labour markets, advocating for innovative and flexible training models responsive to dynamic industry demands. Ardoin, Bowers and Gaillard (2020) support this, highlighting that learning communities serve as fertile grounds for skill development, underscoring the importance of context-sensitive educational approaches.

Allais, Schoer, Marock, Kgalema, Ramulongo and Sibiya (2021) argue that closing these gaps necessitates sustained investment in lifelong learning to support transitions from education to employment and ensure the continued relevance of skills in an evolving labour market. Van

Nieuwenhove and De Wever (2025) define lifelong learning as the ongoing, voluntary, and self-motivated pursuit of knowledge for personal or professional reasons, emphasising its role in industries experiencing rapid technological advancement and acute labour shortages.

However, barriers such as time constraints, limited financial resources, and restricted access to relevant learning content often hinder adult learners from participating in lifelong education initiatives (Van Nieuwenhove & De Wever, 2025). These challenges disproportionately affect marginalised and low-income populations, limiting their ability to compete in modern economies. Addressing these issues requires a multifaceted strategy, including targeted funding, curriculum reforms, and increased awareness about the critical role of lifelong learning.

Empirical studies in South Africa provide further insight into the complexities of skills development. A qualitative study by De Villiers and Dimes (2022) in the Oliver Reginald (OR) Tambo District Municipality explored the effectiveness of training and development programmes on employee performance and productivity. The researchers employed an exploratory qualitative approach, utilising interviews and focus groups to gather data from municipal employees. The findings indicate that while training programmes were implemented, challenges such as inadequate resources, a lack of follow-up support, and misalignment with job requirements impeded their effectiveness. This study underscores the necessity for context-specific, well-resourced, and strategically aligned training initiatives to enhance their impact.

Similar challenges are evident in the Niani district. In a study on curriculum change in the Niani circuit of the Limpopo province, inadequate teacher training, resistance to change, and insufficient infrastructure were identified as significant barriers to effective curriculum implementation (Tshibalo, 2016). These findings highlight the importance of addressing systemic issues and providing comprehensive support to educators to facilitate successful educational reforms.

Research on adult literacy and lifelong learning in rural African contexts emphasises the need for culturally relevant and accessible educational programmes. Trudell and Cheffy (2019) argue that for adult literacy initiatives to be effective, local languages and cultural practices should be considered. In the Niani district, where diverse languages and traditions prevail, tailoring educational programmes to the local context is crucial for their success. These studies underscore the multifaceted nature of lifelong learning and skills development in South Africa. They highlight the necessity for policies and programmes that are not only aligned with national strategies but also responsive to local contexts and challenges. In the Niani District, integrating qualitative insights into the design and implementation of lifelong learning initiatives can enhance their relevance and effectiveness, contributing to sustainable development and social equity.

Theoretical Framework

Evaluating the effectiveness of lifelong learning initiatives in bridging skills gaps can be grounded in three complementary theoretical frameworks: human capital theory, the lifelong learning paradigm, and Amartya Sen's capability approach, which provide an integrated lens for this study. Human capital theory (Becker, 2009) underscores the role of education and training as investments that enhance individual productivity and economic value. In this study, the theory was operationalised by examining how targeted upskilling initiatives in Niani equipped participants with competencies directly aligned to industry demands, thereby improving their employability and enabling measurable contributions to local economic growth. The lifelong learning paradigm (Kiwelu & Ogbonna, 2020) frames education as a continuous and self-directed process, which I applied by assessing the accessibility, flexibility, and adaptability of learning opportunities to the specific needs of rural learners, ensuring that skill acquisition was not a one-off event but an ongoing developmental pathway. Sen's capability approach (1999) expands the analysis by moving beyond economic outputs to consider the freedoms and opportunities that learners gain through lifelong learning. In operational terms, this involves evaluating whether these initiatives enable participants to secure employment, pursue meaningful personal and professional goals, exercise agency, and participate fully in their communities. Together, these frameworks allowed me to assess both the instrumental economic benefits and the broader human development outcomes of lifelong learning interventions in bridging skills gaps.

Research Methodology

I adopted a qualitative research approach to explore practices and strategies that enhance the effectiveness of lifelong learning initiatives in addressing skills gaps (Lim, Yap, Lai, Mokhtar, Yeo & Cheong, 2024). A qualitative multiple case study design allowed for an in-depth exploration of diverse perspectives across key economic sectors. The focus was on three sectors: education, information technology (IT), and manufacturing. Education was included because it forms the foundation for skills acquisition and curriculum alignment with labour market needs. The IT and manufacturing sectors were deliberately selected

due to their central role in driving economic transformation, their high demand for continuous upskilling, and their representation of the economy's knowledge-based and production-based components. IT is a rapidly evolving sector requiring constant adaptation to emerging technology, while manufacturing is undergoing a transition toward automation and Industry 4.0, demanding new technical and operational skills. These two sectors were prioritised over others to capture contexts where skills mismatches are most pronounced and lifelong learning initiatives have immediate, measurable impacts on productivity and employability.

A purposive sampling strategy was employed to recruit information-rich participants who could provide deep insight into lifelong learning practices within their respective sectors (Creswell & Poth, 2016). The sample comprised 20 participants: six principals and four teachers (education sector), three IT specialists and two IT trainers (IT sector), and three manufacturing industry experts with two trainers (manufacturing sector). The sample size was deemed sufficient for qualitative depth while allowing for thematic saturation, in line with Hennink and Kaiser's (2022) guidelines that 12 to 20 participants can yield rich, reliable insights in focused qualitative studies.

Participants were selected based on three inclusion criteria: (1) active involvement in designing, implementing, or evaluating lifelong learning or upskilling programmes; (2) at least 3 years of professional experience in their sector; and (3) direct engagement with initiatives aimed at bridging skills gaps. Recruitment was facilitated through professional networks, sector associations, and targeted invitations to ensure diversity of roles and perspectives within each sector.

To enhance the trustworthiness and validity of the findings, methodological triangulation was employed (Morgan, 2024). Data were collected from three complementary sources: semi-structured interviews, organisational policy documents (such as training manuals and programme evaluations), and sectoral reports on skills needs. This triangulation ensured that interview insight could be corroborated and contextualised with documentary and secondary data.

Data collection followed a structured procedure. Firstly, informed consent was obtained from all participants. Semi-structured interviews were conducted face-to-face or via secure video conferencing, depending on participant availability. Each interview lasted between 45 and 60 minutes and was audio-recorded with permission. Documentary evidence was collected concurrently, and relevant sectoral statistics were retrieved from publicly available reports to contextualise interview findings.

The interview protocol consisted of three sections: background and role context – exploring participants' professional backgrounds and involvement in lifelong learning initiatives; perceptions of skills gaps – examining the types of skills gaps observed in their sector and the perceived drivers of these gaps; effectiveness of lifelong learning initiatives – probing strategies used, challenges encountered, success stories, and recommendations for improving lifelong learning practices.

This comprehensive methodology ensured that I captured sector-specific realities, grounded insights in multiple data sources, and aligned with best practices in qualitative research for examining complex social and economic phenomena.

Findings

The various themes identified from the data are discussed below, supported by relevant quotations from the interviews. Evaluating the effectiveness of lifelong learning initiatives in bridging skills gaps has revealed the following key themes:

Theme 1: Alignment with Industry Needs

Tailoring educational programmes to meet specific industry demands is essential for addressing persistent skills shortages and improving graduate employability. Workforce development initiatives that customise training to align with sector-specific requirements have effectively enhanced industry readiness (Rahaman & Bari, 2024). Several study participants echoed this perspective. One participant, who served in a leadership role, emphasised: "*I play a pivotal role in aligning educational curricula with industry needs, serving as instructional leaders who guide teaching and learning within their schools*" (P3). This aligns with Nel, Hay, Bekker, Beyers, Pylman, Alexander and Matoti (2023), who argue that principals' perceptions of curriculum reform are shaped by their understanding of its relevance to national development goals, influencing their instructional direction. Similarly, Teacher 2 (T2) highlighted the importance of real-world relevance in curriculum design: "*Implementing curricula that meet industry standards and their perceptions can impact the effectiveness of educational programmes in preparing students for the workforce*." This view corresponds with findings by Ookeditse (2022), who emphasises the impact of teachers' curriculum perceptions on students' vocational preparedness.

From a technological standpoint, IT2 underscored the need to incorporate current technological trends into curricula, stating that they "*advocate for curricula that equip students with up-to-date skills and knowledge, ensuring that graduates are prepared for the rapidly evolving tech industry*." This aligns with the recommendations by Goulart, Liboni and Cezarino

(2022), who emphasise the integration of digital competencies into educational systems to meet evolving industry demands. Trainer 2, focusing on training institutions, shared the following: "*curriculum alignment is essential for ensuring that training outcomes meet the expectations of employers and industry stakeholders*". This sentiment is reinforced by Huang (2025), who maintains that vocational training must continuously evolve to reflect employer needs. An industry expert added: "*curriculum alignment is a means to bridge the skills gap, ensuring that graduates possess the competencies required in the job market*", which aligns with Tarmo and Kimaro (2021), who advocate for competency-based curriculum models to close the skills mismatch.

Lastly, an industry expert trainer emphasised the gap between academia and evolving market demands, stating that "*traditional education often lags behind evolving market demands, making it essential for training programmes to be dynamic and responsive*" (IETR2). This concern is also raised by Ajani (2024), who highlights that adaptive curricula are critical for keeping pace with technological and economic changes. These perspectives and supporting literature underscore the necessity of responsive, industry-aligned educational strategies to ensure that learners are adequately prepared for current and future workforce demands.

Theme 2: Enhanced Employability

Continuous learning has emerged as a key driver of employability in today's dynamic and technologically evolving labour markets. By equipping individuals with up-to-date skills and the capacity to adapt, lifelong learning initiatives significantly improve career prospects and ensure sustained workforce relevance (Molnár, Jenei, Moreno, Lakshmi, Malatyinszki & Dávid, 2024). Participants in the study emphasised that fostering a culture of continuous learning was crucial across all educational and professional levels. A school principal, noted the following: "*I believe that fostering a culture of continuous learning within our institution is essential. By encouraging educators and students to engage in lifelong learning, we ensure that our community remains adaptable and prepared for the evolving demands of the job market*". This aligns with the findings of Ahsan (2025) who argues that educational leaders play a vital role in institutionalising lifelong learning practices, thereby creating an ecosystem that supports teacher and learner development.

From a classroom perspective, the dual importance of teacher upskilling and student readiness was highlighted: "*I recognise the importance of integrating continuous learning into my professional development and classroom practices. I can better prepare my students to meet current job market requirements by staying updated with the latest educational strategies and industry trends. Encouraging students to adopt a mindset of lifelong learning empowers them to navigate and succeed in their future careers*" (T4). This viewpoint is reinforced by Or (2024) who emphasises the role of educators in modelling lifelong learning behaviour and integrating future-ready competencies into teaching.

The necessity of continuous learning is even more pronounced in rapidly changing fields like technology. "*I understand that continuous learning is beneficial and necessary. By engaging in ongoing education and skill development, we can keep pace with technological advancements and maintain our competitiveness in the job market. Lifelong learning enables us to adapt to new tools and methodologies, ensuring our expertise remains relevant*" (IT1). This statement resonates with the research of Li (2024), who stresses that in sectors such as IT, frequent upskilling and reskilling are critical to sustaining employability and innovation.

TR1 emphasised the strategic importance of current skills development in the vocational training space. "*I emphasise the value of continuous learning to my trainees. I advocate for developing up-to-date skills that align with current industry standards, enhancing their employability. By fostering a commitment to lifelong learning, we prepare individuals to adapt to changing job requirements and seize new opportunities as they arise.*" This view corresponds with research by Peeters, Akkermans and De Cuyper (2020) who argue that employability is not a static attribute but a dynamic outcome of continuous personal and professional development.

From an employer and industry lens, IE1 underlined the broader value of lifelong learning in economic and workforce development: "*I see continuous learning as a critical factor in maintaining a skilled and adaptable workforce. We value professionals who proactively update their skills to meet evolving industry demands. This adaptability benefits individual career growth and drives innovation and competitiveness within our sector.*" Supporting this, Khalid and Al Zahrani (2024) emphasise that continuous learning contributes not only to individual employability but also to organisational agility and productivity in competitive markets.

Finally, IETR1 addressed the macroeconomic implications of learning about market adaptability: "*In today's rapidly evolving job market, individuals who actively engage in lifelong learning are better equipped to adapt to new technologies and shifting industry demands. We see firsthand how upskilling and reskilling programmes make employees more competitive, ensuring they remain valuable assets in their fields.*" This aligns with the findings of Li (2024), which underscore the crucial role of

structured upskilling initiatives in enhancing labour force resilience and national competitiveness. Together, these perspectives and the supporting literature affirm that enhanced employability is deeply rooted in cultivating lifelong learning mindsets, with stakeholders across education and industry recognising its transformative impact on individual, institutional, and economic outcomes.

Theme 3: Economic Impact

Investing in vocational education and training (VET) and lifelong learning yields significant economic benefits, benefiting individuals, employers, and society as a whole. These investments not only contribute to a more skilled and adaptable workforce but also play a critical role in enhancing productivity, reducing unemployment, and promoting social cohesion (Silalahi & Walsh, 2023).

Participants across the educational and professional spectrum highlighted the multifaceted economic benefits of VET and lifelong learning. Participant 7 commented as follows: "*I recognise that by promoting VET and lifelong learning within our institution, we enhance our students' prospects and contribute to the broader economy. Our graduates become skilled professionals who drive economic growth and foster social cohesion*" (P7). This aligns with findings by Avis, Atkins, Esmond and McGrath (2021), which emphasise that institutions promoting VET help cultivate human capital that directly supports national economic resilience and inclusive development.

Similarly, T1 provided insight into the classroom-level benefits of practical skills development: "*I see firsthand how equipping students with practical skills through VET programmes prepares them for the workforce. This approach benefits the students and addresses industry needs, increasing productivity and economic advancement*." According to Chekol (2024), practical-oriented education programmes enhance the work-readiness of students, thereby enabling smoother transitions from school to employment and contributing to economic growth by reducing youth unemployment and underemployment. IT1 emphasised the link between continuous learning and innovation in the tech sector: "*By engaging in lifelong learning, we stay abreast of technological advancements, maintain our competitiveness, and contribute to economic growth through innovation and efficiency*." This statement is corroborated by George (2023), who notes that tech-driven industries rely heavily on lifelong learning to sustain innovation cycles and market adaptability, ultimately reinforcing national economic performance.

As a vocational trainer, TR2 observed that "*providing individuals with up-to-date skills through VET programmes enhances their employability and meets employer demands. This alignment leads to a more productive workforce and supports economic development*." This point of view is echoed by Chekol (2024), underscoring the role of responsive vocational education systems in improving labour productivity and aligning human capital supply with market demand.

From an industry executive's perspective, IE2 stressed that "*investing in VET and lifelong learning ensures a pipeline of skilled workers ready to meet evolving market demands. This investment is essential for sustaining economic growth and maintaining social cohesion.*" Supporting this assertion, Ashford, Hall, Arango-Quiroga, Metaxas and Showalter (2020) argue that targeted investments in skills development contribute directly to national economic strategies, helping to manage structural shifts in employment and reduce inequality.

Lastly, IETR1 summarised the broader economic implications as follows: "*We firmly believe that investing in vocational education and lifelong learning has a profound economic impact. We see how equipping individuals with industry-relevant skills leads to a more competent workforce, increased productivity, and overall economic growth.*" This observation aligns with the research of Molnár et al. (2024), who highlights that countries with robust lifelong learning infrastructure tend to enjoy higher labour force participation rates and stronger gross domestic product (GDP) growth trajectories. These perspectives and scholarly insight reinforce that economic progress and sustainable development are closely tied to continuous investments in vocational education and lifelong learning. These strategies are not only about improving individual career outcomes but are also essential levers for driving national prosperity and reducing social disparities.

Theme 4: Cultural Influence

Cultural values play a critical role in shaping perceptions and practices related to lifelong learning. Elements such as respect for elders, a high regard for education, and an emphasis on self-improvement often create fertile ground for promoting continuous learning. However, societal expectations and traditional career pathways can constrain individual choices, influencing how lifelong learning is embraced and implemented (Mutanga, Piyose & Ndovela, 2023). Participants in this study articulated how cultural dimensions both promoted and hindered engagement with lifelong learning initiatives. Participant 1, a principal, reflected on how school culture fosters positive lifelong learning behaviour: "*I observe that our school's culture, which emphasises respect for elders and continuous self-improvement, fosters*

a positive attitude toward lifelong learning among students. However, I also notice that societal expectations and traditional career paths can sometimes limit students' willingness to explore non-traditional learning opportunities" (P1). This is supported by Al-Nahdi and Li (2025), who found that when cultural narratives prioritise hierarchical respect and continuous self-betterment, learners tend to value education more. However, they also note that rigid career norms can discourage the exploration of less conventional educational trajectories, particularly among young people. Similarly, T5 noted: "*I see that students from cultures that value education and self-improvement are more inclined to engage in lifelong learning. Yet, I also recognise that societal pressures to follow traditional career paths can discourage some students from pursuing alternative educational experiences.*" According to Chekol (2024), collectivist societies often favour conventional paths such as medicine, law, or engineering, which can stifle innovation and deter learners from engaging in lifelong or non-linear educational pursuits despite an overarching respect for learning.

From the tech sector, IT2 expressed concern over the tension between innovation and tradition: "*We value continuous learning to keep up with rapid advancements. However, cultural expectations and traditional career trajectories can sometimes discourage individuals from engaging in ongoing education, potentially hindering their professional growth.*" This insight aligns with research by Narayan (2023), who observed that while tech industries demand rapid reskilling, cultural inertia in some societies continues to channel individuals into static roles, thereby resisting the dynamic learning paths necessary in high-growth sectors. As a vocational trainer, TR1 highlighted receptiveness among certain learners: "*I find that participants from cultures emphasising education and self-improvement are more receptive to lifelong learning programmes. Nevertheless, societal norms and expectations about career paths can influence their engagement levels and openness to non-traditional learning methods*." This aligns with Hill, Rogers-Shaw and Carr-Chellman (2023), who argue that adult learners from education-oriented cultures often show intrinsic motivation for development. However, societal expectations and familial pressure to follow "respectable" professions can lead to hesitancy in embracing alternative, albeit promising, skills-development pathways. IE3 elaborated on the broader workplace impact: "*We observe that cultural values significantly impact employees' attitudes toward lifelong learning. While a cultural emphasis on education and self-improvement promotes continuous learning, societal expectations and traditional career paths can sometimes restrict individuals' willingness to pursue diverse learning opportunities.*" This observation is supported by research of Roman (2024), who found that while corporate training programmes thrive in environments that value growth and knowledge, participation often falters in cultures where deviation from traditional roles is discouraged or stigmatised.

Finally, IETR2 shared a more optimistic view: "*In many societies, the emphasis on education, respect for knowledge, and the belief in continuous self-improvement create a strong foundation for lifelong learning. We see how individuals from cultures prioritising education are more likely to engage in upskilling and professional development, viewing learning as an ongoing journey rather than a one-time achievement.*" This is consistent with the work of Li (2024), who emphasises that cultures rooted in Confucian and African humanistic traditions view learning as a lifelong responsibility and social duty, fostering resilience and adaptability in both personal and professional spheres. In summary, while cultural values often provide a strong foundation for lifelong learning by emphasising education and personal development, they can simultaneously act as a constraint when societal expectations limit exploration outside traditional roles. Understanding these cultural dynamics is vital for designing inclusive and effective lifelong learning strategies that resonate with diverse learner contexts.

Theme 5: Policy Support

Government policies play a crucial role in promoting and sustaining lifelong learning. Policy support facilitates access to upskilling opportunities through funding allocations, tax incentives, and regulatory frameworks, and ensures inclusivity across socio-economic strata. Participants in this study consistently emphasised the need for comprehensive and coordinated policy interventions to support lifelong learning. Participant 10, a principal, emphasised the necessity of systemic policy support in schools: "*I believe that government support is crucial for integrating lifelong learning into our educational framework. Policies providing funding and resources enable us to offer programmes encouraging students to pursue continuous learning, preparing them for future challenges*" (P10). These align with Mogotsi (2023), who argues that South African education policy reform must emphasise lifelong learning as a foundational principle supported by targeted funding for school-based innovation and continuous learning pathways.

T1 highlighted the impact of policy on educator development: "*Government initiatives that fund professional development and upskilling programmes empower educators to stay current*

with evolving teaching methodologies. This support enhances our teaching effectiveness and models the importance of lifelong learning to our students." This is supported by Smith and Gillespie (2023), who note that public investment in teacher professional development is directly correlated with student achievement and the adoption of lifelong learning. From a technology point of view, IT2 remarked: "*In the technology industry, we recognise that government policies offering tax incentives for upskilling can motivate companies to invest in employee development. Such support ensures that our workforce remains competitive and adept at navigating technological advancements.*" This aligns with Remington and Yang (2020), who emphasise that fiscal incentives and public-private partnerships are critical levers for enhancing workforce adaptability in high-tech industries.

TR1, a trainer, pointed out the importance of access: "*I see that government-funded programmes make lifelong learning accessible to a broader audience. These initiatives are essential for individuals seeking to enhance their skills and adapt to the changing demands of the job market*." This perspective is echoed by Salmi and D'Addio (2021) who assert that inclusive policy frameworks supported by public funding reduce barriers to adult education, particularly for marginalised and unemployed populations. IE1, representing the industry sector, stressed co-ordinated policy action: "*Co-ordinated government policies, as advocated by Higher Education Policy Institute (HEPI) in the United Kingdom, are vital for creating a skilled workforce. A unified approach to lifelong learning ensures that training programmes align with industry needs, promoting economic growth and social equity.*" This view is supported by Molnár et al. (2024), who recommends integrated national lifelong learning strategies aligned with labour market intelligence to ensure relevance and responsiveness. In the South African context, such co-ordinated efforts are consistent with the objectives of the NDP (2030), emphasising inclusive economic growth, skills development, and lifelong learning as key drivers for reducing unemployment and inequality.

Finally, IETR1 emphasised the comprehensive role of policy: "*We see firsthand how policy support, including funding programmes, tax incentives, and regulatory frameworks, encourages individuals and businesses to invest in continuous learning. When governments prioritise upskilling initiatives, we can better design and implement training programmes that meet industry demands while ensuring accessibility for all*." This aligns with the findings of Rahman and Rizqi (2024) who advocate for policy ecosystems that integrate lifelong learning across education, employment, and innovation sectors. In summary, integrating supportive government policies is crucial for fostering a culture of lifelong learning. Such policies provide the necessary resources and incentives for individuals and organisations to engage in continuous education and ensure that the workforce remains adaptable and competitive in a rapidly changing global economy.

Data Analysis and Discussion of Findings

I followed Braun and Clarke's (2022) six-step thematic analysis process to analyse the qualitative data, ensuring methodological rigour and transparency. Interview and focus-group transcripts were first transcribed verbatim, after which initial codes were generated inductively to capture significant ideas. These codes were then grouped into categories based on conceptual similarity. Through iterative comparison, four overarching themes emerged: (1) lifelong learning as a driver of professional resilience and growth, (2) the role of VET in labour market alignment, (3) the socio-economic context as a determinant of access, and (4) systemic and cultural barriers to participation. To ensure validity, the themes were refined through peer debriefing to enhance credibility and triangulated with documentary sources, including policy reports and programme evaluations.

The first theme, lifelong learning as a driver of professional resilience and growth, revealed that participants viewed continuous upskilling not merely as a means of acquiring technical knowledge but as a way to enhance confidence, adaptability, and career mobility. For instance, IT professionals highlighted that sector-specific training enabled them to integrate emerging systems into their workflow, thus maintaining operational efficiency and fostering innovation. Theoretically, these findings resonate with the human capital theory (Becker, 2009), which posits that investment in education and training yields economic and personal returns. They also align with the social cognitive career theory (Lent, Brown & Hackett, 1994), which underscores the role of self-efficacy in career progression, evidenced by participants' reported confidence gains from training.

The second theme, VET and labour market alignment, underscored the critical role of industry-responsive vocational programmes, such as the "Bridging the Skills Gap" initiative, in reducing unemployment and producing work-ready graduates. This finding reflects the principles of the Skills Development Act (RSA, 1998), which promotes collaboration between employers and educational institutions to enhance economic productivity. It also echoes the capability approach (Sen, 1999), which frames such programmes as

expanding individuals' real freedoms to secure meaningful employment.

The third theme, the socio-economic context as a determinant of access, highlighted the unique challenges in South Africa, where persistent skills mismatches, high youth unemployment, and rural-urban disparities limit the effectiveness of lifelong learning strategies. Participants stressed that these systemic challenges would remain unresolved without sustained partnerships between the DHET, industry stakeholders, and educational institutions. This finding reinforces the argument in the social justice theory (Rawls, 1971) that equitable opportunity structures are essential for fair participation in societal goods, here, lifelong learning opportunities.

The fourth theme, systemic and cultural barriers to participation, revealed that socio-economic inequalities, limited digital infrastructure, and cultural norms devaluing non-traditional education, inhibit engagement. These constraints parallel Van Nieuwenhove and De Wever's (2025) assertion that systemic and cultural conditions can perpetuate exclusion from learning pathways, despite formal policy support. The persistence of these barriers suggests that access must be reconceptualised beyond physical availability to include affordability, cultural relevance, and learner support structures.

Limitations of the Study

While this study offers valuable insights into the role of lifelong learning in the South African labour market, it is essential to acknowledge its limitations. Firstly, the research was geographically limited to selected sectors and regions, which constrains the generalisability of its conclusions. Secondly, the reliance on qualitative data, although rich in contextual depth, does not allow for broad statistical inferences; a mixed-methods approach could have provided a more comprehensive understanding. Thirdly, thematic analysis is inherently interpretive, meaning that researcher bias cannot be eliminated despite mitigation strategies such as peer review. Lastly, the temporal scope of the study did not permit tracking of longitudinal outcomes, limiting the ability to assess the long-term impact of initiatives such as the "Bridging the Skills Gap" programme. The findings demonstrate that lifelong learning is a multi-dimensional driver of economic competitiveness, professional resilience, and social equity in South Africa. However, its transformative potential will remain unrealised without targeted interventions addressing systemic inequities and cultural attitudes. By integrating the human capital theory, the social justice theory, and the capability approach into the discussion, the analysis underscores the necessity of collaborative, inclusive, and context-sensitive strategies to foster a future-ready workforce in the global economy.

Conclusion

With this study I evaluated the effectiveness of lifelong learning initiatives in bridging skills gaps and enhancing workforce readiness. The findings highlight that continuous education fosters adaptability, employability, and resilience, particularly when supported by collaboration between educational institutions and industries. Government involvement through policies and incentives further expands access and promotes inclusivity. However, limitations such as reliance on secondary data and the absence of sector-specific analysis may affect the generalisability of the results. I recommend the strengthening of public-private partnerships, investing in digital infrastructure, and ensuring equitable access to digital resources. In future, research should investigate the long-term and cross-sectoral impacts. Ultimately, lifelong learning is vital for economic competitiveness and social equity, requiring sustained commitment to cultivate a skilled, adaptable, and empowered workforce.

Notes

i. Published under a Creative Commons Attribution Licence.
ii. DATES: Received: 31 January 2025; Revised: 13 August 2025; Accepted: 17 September 2025; Published: 30 November 2025.

References

Ahsan MJ 2025. Cultivating a culture of learning: The role of leadership in fostering lifelong development. *The Learning Organization*, 32(2):282–306. https://doi.org/10.1108/TLO-03-2024-0099

Ajani OA 2024. Enhancing pre-service teacher education: Crafting a technology-responsive curriculum for modern classrooms and adaptive learners. *Research in Educational Policy and Management*, 6(2):209–229. https://doi.org/10.46303/repam.2024.32

Allais S, Schoer V, Marock C, Kgalema V, Ramulongo N & Sibiya T 2021. Rethinking 'supply and demand' of technical and vocational education and training: Insights from a company survey in three manufacturing sectors in South Africa. *Journal of Education and Work*, 34(5-6):649–662. https://doi.org/10.1080/13639080.2021.1967302

Al-Nahdi YAAS & Li Y 2025. Educational values in Islam and confucianism: A comparative analysis. *Arts for Linguistic & Literary Studies*, 7(1):640–673. https://doi.org/10.53286/arts.v7i1.2421

Ardoin NM, Bowers AW & Gaillard E 2020. Environmental education outcomes for conservation: A systematic review. *Biological Conservation*, 241:108224. https://doi.org/10.1016/j.biocon.2019.108224

Ashford NA, Hall RP, Arango-Quiroga J, Metaxas KA, & Showalter AL 2020. Addressing inequality: The

first step beyond COVID-19 and towards sustainability. *Sustainability*, 12(13):5404. https://doi.org/10.3390/su12135404

Avis J, Atkins L, Esmond B & McGrath S 2021. Re-conceptualising VET: Responses to covid-19. *Journal of Vocational Education & Training*, 73(1):1–23. https://doi.org/10.1080/13636820.2020.1861068

Becker GS 2009. *Human capital: A theoretical and empirical analysis, with special reference to education* (3rd ed). Chicago, IL: University of Chicago Press.

Braun V & Clarke V 2022. Conceptual and design thinking for thematic analysis. *Qualitative Psychology*, 9(1):3–26.

Chaker B & Damak C 2024. Navigating tomorrow: Strategies for effective workforce reskilling. In O Meçik (ed). *Reskilling the workforce for technological advancement*. Hershey, PA: IGI Global.

Chari SG 2024. Bridging gaps, building futures: Tackling socio-economic disparities through education and technology. *London Journal of Research in Humanities & Social Science*, 24(16):17–87. Available at https://journalspress.uk/index.php/LJRHSS/article/view/1122. Accessed 11 November 2025.

Chekol F 2024. Reviewing the macroeconomic relevance of education system in Ethiopia: The role of skill gap. *Cogent Education*, 11(1):2365584. https://doi.org/10.1080/2331186X.2024.2365584

Creswell JW & Poth CN 2016. *Qualitative inquiry & research design: Choosing among five approaches* (4th ed). Thousand Oaks, CA: Sage.

Department of Education 2009. *Human Resource Development Strategy for South Africa (HRD-SA) 2010 – 2030*. Pretoria, South Africa: Author.

De Villiers C & Dimes R 2022. Critical analysis of the contribution of Integrated Reporting (IR) to sustainability. In CA Adams (ed). *Handbook of accounting and sustainability*. Cheltenham, England: Edward Elgar Publishing. https://doi.org/10.4337/9781800373518.00020

George AS 2023. The ephemeral career: How technological change necessitates flexible employment. *Partners Universal International Innovation Journal*, 1(5):47–62. https://doi.org/10.5281/zenodo.10003775

Goulart VG, Liboni LB & Cezarino LO 2022. Balancing skills in the digital transformation era: The future of jobs and the role of higher education. *Industry and Higher Education*, 36(2):118–127. https://doi.org/10.1177/09504222211029796

Green SL & Du Plessis EC 2023. Project-based learning to promote learner autonomy in training hospitality education at a technical and vocational education and training college. *International Journal of Learning, Teaching and Educational Research*, 22(7):136–155. https://doi.org/10.26803/ijlter.22.7.8

Hennink M & Kaiser BN 2022. Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine*, 292:114523. https://doi.org/10.1016/j.socscimed.2021.114523

Hill LH, Rogers-Shaw CA & Carr-Chellman DJ 2023. But, is it adult education? Disciplinary boundaries of adult education and higher education. *Adult Learning*, 34(2):59–67. https://doi.org/10.1177/10451595231159430

Huang F 2025. Exploring a new model of undergraduate vocational education. *Vocation, Technology & Education*, 2(1):1–12. https://doi.org/10.54844/vte.2025.0869

Khalid K & Al Zahrani MAK 2024. Investigating the dynamics of workforce stability: The influence of perceived employability on career resilience, task performance, learning agility and employee retention. *European Journal of Sustainable Development*, 13(3):389–410. https://doi.org/10.14207/ejsd.2024.v13n3p389

Kiwelu JEM & Ogbonna JE 2020. Integrating online autodidacticism in lifelong learning for adults in Sub-Saharan Africa. *Journal of Applied Sciences, Information, and Computing*, 1(1):49–56. Available at https://ecommons.aku.edu/cgi/viewcontent.cgi?article=1082&context=libraries. Accessed 30 June 2025.

Klopp JM, Trimble M & Wiseman E 2022. Corruption, gender, and small-scale cross-border trade in East Africa: A review. *Development Policy Review*, 40(5):e12610. https://doi.org/10.1111/dpr.12610

Kouskoura A, Kalliontzi E, Skalkos D & Bakouros I 2024. Assessing the key factors measuring regional competitiveness. *Sustainability*, 16(6):2574. https://doi.org/10.3390/su16062574

Kraak JM & Schalk R 2024. Editorial: Making the (entire) world a better place? Aligning theory and practice towards a more sustainable & inclusive HRM. *Group & Organization Management*, 49(6):1331–1337. https://doi.org/10.1177/10596011241291293

Lent RW, Brown SD & Hackett G 1994. Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45(1):79–122. https://doi.org/10.1006/jvbe.1994.1027

Li L 2024. Reskilling and upskilling the future-ready workforce for Industry 4.0 and beyond. *Information Systems Frontiers*, 26:1697–1712. https://doi.org/10.1007/s10796-022-10308-y

Lim ZY, Yap JH, Lai JW, Mokhtar IA, Yeo DJ & Cheong KH 2024. Advancing lifelong learning in the digital age: A narrative review of Singapore's SkillsFuture Programme. *Social Sciences*, 13(2):73. https://doi.org/10.3390/socsci13020073

López Peláez A, Aramendia-Muneta ME & Erro-Garcés A 2023. Poverty, social work, and social intervention: Decent work as a strategy to overcome poverty after the Covid-19. *Journal of Social Work Practice*, 37(2):213–229. https://doi.org/10.1080/02650533.2023.2214309

Mogotsi K 2023. The role of innovative finance mechanisms in ICT rollout in South Africa's education system. MDevFin dissertation. Cape Town, South Africa: University of Cape Town. Available at https://open.uct.ac.za/server/api/core/bitstreams/bdbc095c-0653-4f79-84f5-9c7b1397c166/content. Accessed 13 November 2025.

Molnár T, Jenei S, Moreno E, Lakshmi VP, Malatyinszki S & Dávid LD 2024. The role of lifelong learning in labour market competitiveness. *Journal of*

Ecohumanism, 3(8):7743–7761. https://doi.org/10.62754/joe.v3i8.5396

Morgan H 2024. Using triangulation and crystallization to make qualitative studies trustworthy and rigorous. *The Qualitative Report*, 29(7):1844–1856. https://doi.org/10.46743/2160-3715/2024.6071

Mutanga MB, Piyose PX & Ndovela SL 2023. Factors affecting career preferences and pathways: Insights from IT students. *Journal of Information Systems and Informatics*, 5(3):1111–1122. https://doi.org/10.51519/journalisi.v5i3.556

Narayan D 2023. Manufacturing managerial compliance: How firms align managers with corporate interest. *Work, Employment and Society*, 37(6):1443–1461. https://doi.org/10.1177/09500170221083109

Nel M, Hay J, Bekker T, Beyers C, Pylman N, Alexander G & Matoti S 2023. Exploring the perceptions of lecturers and final year students about the infusion of inclusion in initial teacher education programmes in South Africa. *Frontiers in Education*, 8:1024054. https://doi.org/10.3389/feduc.2023.1024054

Ookeditse GB 2022. Vocational teachers' perceptions of transition components and relevance of curriculum to employment for students with disabilities. *Cogent Education*, 9(1):2091621. https://doi.org/10.1080/2331186X.2022.2091621

Or C 2024. Advancing workforce competency: Singapore's integration of competency-based education. *Journal of Applied Learning & Teaching*, 7(2):421–432. https://doi.org/10.37074/jalt.2024.7.2.3

Peeters ER, Akkermans J & De Cuyper N 2020. The only constant is change? Movement capital and perceived employability. *Journal of Career Assessment*, 28(4):674–692. https://doi.org/10.1177/1069072720918195

Pouliou A 2024. *Exploring the emergence of microcredentials in vocational education and training (VET)* (Cedefop working paper series no 22). Luxembourg: Publications Office of the European Union. https://doi.org/10.2801/671358

Rahaman MA & Bari MH 2024. Predictive analytics for strategic workforce planning: A cross-industry perspective from energy and telecommunications. *International Journal of Business Diplomacy and Economy*, 3(2):14–25. https://doi.org/10.2139/ssrn.4983349

Rahman NA & Rizqi PU 2024. Bridging the gap in lifelong learning: Policy, technology, and equity in digital education access. *Sinergi International Journal of Education*, 2(2):114–129. https://doi.org/10.61194/education.v2i2.585

Rawls J 1971. *A theory of justice*. London, England: Cambridge University Press.

Remington TF & Yang P 2020. Public-private partnerships for skill development in the United States, Russia, and China [Special issue]. *Post-Soviet Affairs*, 36(5-6):495–514. https://doi.org/10.1080/1060586X.2020.1780727

Republic of South Africa 1998. Act No. 97, 1998: Skills Development Act, 1998. *Government Gazette*, 401(19420), November 2.

Roman FMG 2024. Bridging digital transformation gaps in Southeast Asia. MSMS thesis. Cambridge, MA: Massachusetts Institute of Technology. Available at https://dspace.mit.edu/bitstream/handle/1721.1/156022/guevarraroman-fmgroman-msms-sloan-2024-thesis.pdf?sequence=1&isAllowed=y. Accessed 17 October 2025.

Salmi J & D'Addio A 2021. Policies for achieving inclusion in higher education. *Policy Reviews in Higher Education*, 5(1):47–72. https://doi.org/10.1080/23322969.2020.1835529

Sen A 1999. Health in development. *Bulletin of the World Health Organization*, 77(8):619–623. Available at https://pmc.ncbi.nlm.nih.gov/articles/instance/2557713/pdf/10516784.pdf. Accessed 30 November 2025.

Silalahi MS & Walsh S 2023. Analyzing government policies in addressing unemployment and empowering workers: Implications for economic stability and social welfare. *Law and Economics*, 17(2):92–110. https://doi.org/10.35335/laweco.v17i2.3

Smith C & Gillespie M 2023. Research on professional development and teacher change: Implications for adult basic education. In J Comings, B Garner & C Smith (eds). *Review of adult learning and literacy: Connecting research, policy, and practice* (Vol. 7). New York, NY: Routledge.

Tarmo A & Kimaro A 2021. The teacher education curriculum and its competency-based education attributes. *The Journal of Competency-Based Education*, 6(3):e01255. https://doi.org/10.1002/cbe2.1255

Trudell J & Cheffy I 2019. Local knowledge, global knowledge: The role of local language literacy for lifelong learning in rural African contexts. *International Review of Education*, 65:409–425. https://doi.org/10.1007/s11159-019-09777-2

Tshibalo AE 2016. "To stand where God stands": The mission praxis of the Melodi ya Tshwane congregation. MTh dissertation. Pretoria, South Africa: University of South Africa. Available at https://www.proquest.com/docview/3224570951?pq-origsite=gscholar&fromopenview=true&sourcetype=Dissertations%20&%20Theses. Accessed 30 November 2025.

Van Nieuwenhove L & De Wever B 2025. 'Situational barriers are keeping me from participating', but are they situational? Examining low-educated adults' psychosocial views on adult learning. *Studies in the Education of Adults*, 57(1):175–201. https://doi.org/10.1080/02660830.2023.2297462