

REVIEW ARTICLE

Salient effects of lingering colonial pasts in Africa's technical and vocational education and training systems: A review of former French and British colonies

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ABSTRACT

Africa's technical and vocational education and training (TVET) systems continue to wrestle with structures inherited from colonial rule. This review is an inquest on the ways in which enduring colonial legacies have influenced the creation and implementation of TVET policies in several French and British colonies. The study performs a comprehensive qualitative synthesis of 38 peer-reviewed papers published from 1990 to 2024. These articles were obtained through searching with deductive keywords in vocational education across databases such as EBSCO, Web of Science, and Scopus. Following the elimination of duplicate articles, an assessment of relevance, and an evaluation of academic credibility, research papers that specifically investigated colonial impacts on vocational education in former African colonies were selected. This study identified three primary themes during this process: Historical structures of colonial TVET, impediments to TVET policy implementation and persistent influence of colonial legacies on policy and resources. Case studies from South Africa, Kenya, Nigeria, Ghana, Zimbabwe, and five francophone nations (Benin, Senegal, Cameroon, Mauritania, and Mauritius) indicate the enduring impact of colonial-era educational frameworks on contemporary TVET objectives. The study demonstrates that multilateral initiatives such as China's Luban Workshops provide new frameworks for curriculum reform, educator training, and industrial collaborations. This review synthesizes material from several African contexts to develop a historiographical, informed theory of vocational education in Africa, connecting colonial roots to current policy issues. The study concludes by emphasizing strategies for decolonizing vocational curricula, improving governance, and establishing global collaborations to elevate student achievements.

Key words: technical and vocational education and training, decolonizing education, African technical and vocational education and training systems, vocational education reform

INTRODUCTION

In a seemingly indexing review of vocational education literature in Africa, McGrath *et al.* (2020b) published a critical assessment emphasizing that the majority of studies neglect fundamental socio-political and cultural underpinnings of technical and vocational education and

training (TVET) in Africa. Key arguments in the review highlighted how predominant research covering the development of vocational education ignores important foundations upon which most African TVET systems are built.

This view of vocational education, and its lessons for

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both vocational education researchers and practitioners, contributed to the evolution of TVET theorization. The main tenets of the criticism revolved around how this type of education had been instituted in the past. Chiefly, McGrath et al. (2020b) and Oti-Agyen (2023) demonstrated that past colonial influences left an indelible mark on the education systems of various African countries. These systems then became so entrenched that policymakers found them difficult to develop; therefore, they were institutionalized. Thus, in a cautionary review of relative literature, McGrath et al. (2020b) observed a pattern of reviews that attempted to find and ultimately prescribe solutions offering prevailing theoretical perspectives on policy formulation and implementation. However, these authors claimed that many of these reviews ignored key socio-political economies and cultural nuances that exist in these African settings—key contexts that, when explored, could provide a more vivid picture of the practical issues that underpin policy-making processes informed by the colonial era structures across different African states (Christie, 1991; Fletcher, 2013; Ngware et al., 2024; Nherera, 1994; Shizha & Kariwo, 2011; Spaull, 2013). These contexts could theoretically improve the analysis of the status quo of vocational education policy development in various African countries.

The present study tends to agree with these assessments. Indeed, many of the literature reviews and research concerning vocational education in Africa seem to lack relative socio-political and cultural foundations and thus are lacking in theorems that connect the development of vocational education as these states emerged from colonial rule into independence. This study does not claim to provide a new theoretical framework; rather, it builds upon McGrath et al.'s (2020a) call for a deeper exploration of the historical foundations of TVET. Moreover, this study intends to uncover how colonial frameworks shaped vocational programs in certain African countries, thereby elucidating why postindependence reforms often sustain inherited constraints (McGrath et al., 2020a). The main perspective in this review therefore draws on a more granular basis to conduct a summary analysis on the extent of colonial influences in vocational education policy development across selected case studies. Its objective is to shed even more light onto the context upon which various TVET systems have emerged and therefore reformed from the independence of the concerned states. This review sheds light on the initial conceptions of vocational education in the colonial era and how policymakers in each context studied navigated their way through to reform and develop vocational education policies that are bespoke to their contexts.

A review of the literature shows that the frontier research agrees with the work of McGrath et al. (2020b)

with regard to the limited amount of research conducted in Africa (Afeti & Adubra, 2012; Okolie et al., 2020). The limited research in Africa together forms a strong body of knowledge that can be used to inform theory. This study further argues that there is a lack of updated research plainly demonstrating the key arguments forwarded by scholars looking to describe the origins of vocational education in Africa (Fafunwa, 1974; Ndimande, 2013) and that the illumination of these origins can, when taken together, form a clear picture of why uncovering the sources of vocational education in these economies is so important. In so doing, the study suggests that the influences of the colonial past, and the positioning of vocational education that those legacy systems permeate to this day, continue to hamper efforts to develop the education sector to some degree. This review, however, intends to be careful not to provide a further branch to which policymakers and practitioners may hold onto as the source of inaction when developing responsive vocational education policies in their jurisdictions. The purpose of this research is to expand on the origins of TVET in these systems, and therefore invite scholarly interest in formulating new approaches to studying vocational education in Africa.

To aid in this process, this study expands the body of knowledge to better understand the colonial, political, and cultural influences that spurred vocational education policies in the former colonies This study highlights these origins in various African TVET systems from the pre-colonial, colonial, and post-colonial (Ekuma, 2019; Unterhalter, 2020) statuses of vocational education and notations of TVET in the era. The review further explores the purposes of introducing vocational education in such contexts, which together formed policymakers' original understanding of TVET at the time. This study shares a more comprehensive review of TVET in one such location. While this review begins with a discussion of the modern-day goals of vocational education, it also examines how this type of education came about. The study highlights how TVET was formulated as various African countries became subjects of their colonial masters at the time and ultimately to independence. Moreover, this work shows how the institutionalization of systems codified processes that have been adopted to date and remain key to processes of policy change—or rather, more effectively, stagnation in the whims of consensus.

One of the primary purposes of this study is to state, in a more comprehensive manner than before, the assertions made by earlier scholars on why understanding the evolution of vocational education across Africa is vital in accurately describing and theorizing vocational education in Africa. The study highlights this evolution by discussing the origins and purposes of introducing vocational education in each of the cases reviewed and further indicating the protruding issues post-colonial administration in each of the vocational education systems. The study reviews selected cases in both former British and French colonies, selected largely in consideration of the available published literature. By extending these narratives, this study aims to contribute to a more nuanced, contextual approach in describing vocational education systems in Africa and the paradigms within which they operate.

The study anticipates that the contributions of this research will further aid scholars of both policy development and implementation research in describing and theorizing African TVET in a manner that takes these historical contexts into consideration to build on even more literature that is updated in terms of content but rooted in history. As the review ensues, notwithstanding any pontifications of how this type of education existed as the main form of education, certain theoretical considerations can be formed about policymaking processes in Africa, which carry implications for research in the sector and the ability to apply research findings to policy development and implementation improvement.

REVIEW OF LITERATURE

Theoretical gaps in African TVET research

Reviews of technical and vocational education reveal that TVET is one of the least-researched areas within the education sector. McGrath *et al.* (2020a), prominent researchers in vocational education, have identified significant weaknesses in vocational education in Africa. This has also been echoed by other scholars discussing the weaknesses of theorization in vocational education studies. McGrath *et al.* (2020a), in their literature review of theories that have long underpinned studies on vocational education and training for African development, have offered piercing criticisms of previous studies attempting to theorize vocational education in Africa.

Given the arguments forwarded by scholars, including McGrath *et al.* (2020a), the authors argue that such studies fail to fully account for the political economy histories (Jessop, 2010; Jessop & Sum, 2022) emerging out of colonial regimes. The authors point out that such regimes are still largely responsible for what is currently present and absent in vocational education policies and debates. Therefore, they conclude that previous research is of limited help in driving forward discussions around strategies needed to tackle accelerating challenges faced (Bennell, 2021; Ekuma, 2019; Matli & Ngoepe, 2019).

While no consensus on the appropriate theories that can be used by researchers to accurately describe the vocational education landscape and development in Africa has been formed, as highlighted by McGrath et al. (2020a), several other applications could be plausible for application and extension. The cultural political economy (CPE) approach, for example, contains three "evolutionary" phases of policy reform and analysis variation, selection, and retention—applied by Zancajo and Valiente (2019) and further cited by Jessop and Sum (2022) in their studies on TVET policy reforms in Chile between 2006 and 2018. The CPE approach aims to elucidate the explanatory factors affecting the process of discussion and reform of a specific policy domain (Zancajo & Valiente, 2019). Among various CPE models (Novelli et al., 2014), bespoke reconfigurations of CPE approaches beyond the traditional structuralist political economy approaches may accurately capture the social, cultural, and political histories that drive vocational education policy development and reform across African states.

Frontier discourse on colonialism and African TVET

Other researchers concur with the work of McGrath et al. (2020a) and further highlight the importance of vocational education in African economies. Notable researchers have pointed out that TVET is at the forefront of education research in recent years, noting it as one of the most dependable job creators for students who could not pursue or complete university-level education (Alla-Mensah & McGrath, 2023) in Africa and across the globe. As a result, most countries, including those with smaller TVET systems, such as Lesotho, are focused on implementing and revamping their policies so that they may drive and respond to challenges of employment creation and other issues surrounding the socio-economic status of their citizens (MOET, 2019).

Current reviews and studies of TVET as a subject area indicate that it faces a set of challenges emanating from the very institution of this type of education. Scholars argue that this is because in most education systems, TVET is largely instituted to accommodate students who cannot complete or attain entrance into general higher education institutions and universities either due to having incomplete basic education or poor exit results from basic education or high school (Aldossari, 2020).

Vocational education has been argued to be a product of colonial superpowers in Africa (McGrath et al., 2018; Oketch, 2007; Olayele, 2021), and this is the main concern of this study. The review is formulated on a precipitous point: that current vocational education systems may, to some degree, be held back by the lingering effects of colonial structures and systems, thus resulting in a silent but effective barrier to policy formulation and reform. This study therefore reviews

policy documents and other sources of literature to analyze the lingering effects of colonial education systems in Africa by dissecting how vocational education was introduced in selected cases and how it may continue to influence policy reform efforts.

RESEARCH METHODS

This research conducts a qualitative analysis and synthesis of the literature covering vocational education systems in Africa. In identifying the relevant literature, the researchers leveraged specific keywords related to vocational education in various databases across academic hosts. The documents were collected and analyzed for relevance to the research topic. Specifically, the keywords used in retrieving literature documents were deductive in nature and aimed at filtering articles for review.

Initially, we uncovered extensive literature on vocational education utilizing keywords such as "Vocational Education", "TVET", "VET", and "Technical and Vocational Education and Training". Investigations were performed on several academic databases: EBSCO, Web of Science, Scopus, Wiley, Science Direct, Scholar Media, and Taylor & Francis. Subsequently, to concentrate on African contexts, we affixed nation or area names to each principal term (e.g., "Vocational Education + Nigeria", "TVET + Africa", and "Education Policy Reform + Ghana"). This meticulous search yielded 422 records in total.

Screening and data gathering

To uncover reform articles that complement policy documents, the literature identified to be relevant was further deduced according to the accuracy of the chosen journal article and the extent to which the article addresses the subject matter that is of interest to this study. Further search terms, including "colonial legacy in African education", "TVET reforms in Africa", "higher education colonial influence", and "vocational education policy in Africa", were used in a logical search across several academic databases mentioned earlier and within the collected subsets of articles that focused on TVET or vocational education and "Africa". Thus, at this stage, the process was recursive in nature. A total of 112 studies were identified through this refined search.

Subsequent qualification of sources

To guarantee relevance and rigor, the initial 112 records were subjected to three screening phases. Deduplication was conducted to eliminate duplicate records and preprints. Subsequently, the screening included titles and abstracts. Only studies that clearly examined colonial influences on African vocational education or TVET were preserved. Sources and commentaries that non-peer-reviewed were eliminated. At this juncture, a

comprehensive evaluation (*i.e.*, assessing peer-review status and journal impact) of the remaining publications was conducted to ascertain their academic credibility and direct relevance to policy development or implementation within a colonial/post-colonial framework. After this screening was conducted, 40 studies were deemed to have fulfilled the criteria. Two studies were subsequently removed during data extraction due to their having insufficient methodological information, resulting in 38 studies for final investigation.

Final selection breakdown

Forty studies were chosen for final review after a thorough screening and verification process. The studies were categorized by country to emphasize regional variances in colonial legacy effects. Table 1 summarizes the breakdown of literature sources.

Table 1: Breakdown of literature sources by country

Country	Initial records on TVET reform	Final studies selected with colonial links to TVET
Lesotho	30	4
South Africa	87	5
Kenya	75	3
Nigeria	68	5
Ghana	52	4
Zimbabwe	40	3
Benin	15	3
Senegal	8	3
Cameroon	35	3
Mauritania	7	2
Mauritius	5	3
Total	422	38

TVET, technical and vocational education and training.

Synthesis and analysis

Examining the last corpus of research helped us identify important themes about the evolution of vocational education in Africa and its colonial background. Data were compiled to spot trends and shared common challenges, which were then encapsulated in the following three themes across the studies.

Theme 1: Historical structures of colonial TVET Early colonial policies in both French and British colonies designed vocational tracks to produce clerks, artisans, and low-skilled laborers. These structures remain embedded in national curricula, curricula frameworks, and accreditation systems.

Theme 2: Structural impediments in TVET implementation

Implementation challenges, such as underfunded institutions, outdated equipment, and misaligned

curricula, stem from the governance models and resource allocation mechanisms inherited from colonial regimes.

Theme 3: Persistent influence of colonial legacies on policy and resources

Even after gaining independence, formerly colonized countries often introduce policy reforms that reproduce colonial mindsets (e.g., centralized decision making or stigma against vocational training) that limit TVET's responsiveness to local labor market demands.

The following section of the study discusses the results from this synthesis and reports on the effects of colonial pasts on African vocational education systems. The analysis is categorized by country, highlighting both the origins of vocational education in the country, the purpose of the introduction of vocational education, and the researchers' argument on the extent to which such legacies can still explain the state of vocational education in the case under review. The analysis is then divided into the identified themes.

COLONIAL INFLUENCES PRESENT IN AFRICAN TVET SYSTEMS

Vocational education across most African states is deeply rooted in each state's colonial history. Ample research on the broader education systems in these countries has been conducted see, (McGrath et al., 2020b; Ndille & Litt, 2018; Oketch, 2007). The present study aims to focus on the TVET aspect of education to illuminate how vocational education was entangled in the larger systems and how this may have had an effect on the further development of relevant education systems. The national development goals documented in the literature review are often constrained by these colonial legacies, which continue to influence contemporary TVET policies and practices.

To paint a broader picture from the selected case studies, this review examines the colonial influences in ten African countries that were either former British colonies or were colonized by France. The review covers South Africa, Kenya, Nigeria, Ghana, and Zimbabwe (Anglophone Africa) and Benin, Senegal, Cameroon, Mauritania, and Mauritius (Francophone Africa), although the latter group has limited reviews due to the number of available peer-reviewed studies written in English on the subject. The study explores how vocational education was introduced in each of these countries, the main purpose of such education during the colonial era, and the long-term implications of such education for current TVET policies.

Anglophone African TVET systems

The reviews of Anglophone Africa's TVET systems are

more comparative than those concerning Francophone Africa. This reflects the wider body of English-language studies on the former subject. The reviews clarify that British colonial administrations typically established vocational "industrial schools" and apprenticeship initiatives to cultivate semi-skilled laborers for infrastructural and administrative support. This pattern is identical in the five Anglophone case studies covering representative countries: South Africa, Kenya, Nigeria, Ghana, and Zimbabwe. The colonial curricula prioritized artisan trades, clerical duties, and physical skills aligned with imperial economic goals. Subsequent to achieving independence, each nation has had to confront the inherited curricular frameworks alongside persistent resource deficiencies and social stigmas that continue to influence TVET policy and execution.

South Africa

In South Africa, vocational education was heavily influenced by the racial segregation laws that permeated the entire education system in the country. During apartheid, segregationist regulations severely impeded the ability of Black South Africans to acquire practical skills training (Christie, 1991). Following the implementation of the Bantu Education Act, from 1953 until 1994, vocational education was designed to prepare Black students for low-wage employment in mining and agriculture (Fleisch, 2008). The new administration assumed control of institutionalized organizations following the democratic transition in 1994. Despite the establishment of the National Qualifications Framework (1995) and the Further Education and Training (FET) Colleges Act (2006) to promote equity (Powell & McGrath, 2014), issues such as inadequate resources, social stigma, and racially disproportionate curricula persist. As a result, vocational education continues to struggle to develop "productive citizens" within the context of South Africa's advancing "skills revolution" (Fleisch, 2008; Makgato, 2020).

The institutionalized shallow skills development program continued until 1995. Post-apartheid reforms, such as the introduction of the National Qualifications Framework in 1995, and later through a higher education system by promulgating the FET Colleges Act (2006), sought to address these disparities and integrate vocational education into a unified education system (Powell & McGrath, 2014). From 1995 onwards, however, the lingering inequalities in South Africa persisted despite efforts to address these disparities and integrate vocational education into a unified education system. These persisting inequalities, limited resources, and the stigma associated with vocational training that to date is viewed as an inferior form of education remain significant barriers, and the failure of FET colleges to produce the productive citizens hoped for in South Africa's "skills revolution" (Powell & McGrath, 2014) has not made matters easier.

Continuous efforts are being made to modernize South Africa's education system and improve inclusivity, especially with regard to the curriculum being taught. The country's education system is gradually shifting toward modern skills development with emerging themes like the Fourth Industrial Revolution (4IR), although progress remains uneven (Makgato, 2020). South Africa's battle with vocational education appears to not only be focused on dealing with the education system itself but also entangled in dismantling the colonial, apartheid-era systematic exclusion in industries that were preserved for the minorities that ruled the nation over time. These findings discuss only one such system, pointing to the difficulty of moving beyond legacy systems. The inequities of the colonial past, however, do not seem to account for the shortcomings in resource allocation and other sectors that, for over 30 vears of democratic self-rule, have not reformed TVET in South Africa to the point that it can accommodate the rest of the youth populace that continue to struggle to attain this type of education.

Kenya

In Kenya, as was typical of most of the British colonies at the time, vocational education under British rule was mainly tied to the colonial government's need for a semiskilled labor force primarily earmarked for plantations and other infrastructure projects (Amatsimbi, 2024). The colonial education system in Kenya, which was akin to that of apartheid-era South Africa, deliberately restricted Africans' access to advanced technical training, resulting in a semi-skilled workforce that perpetuated social and economic hierarchies (Bogonko, 1992a, 1992b). Much like other countries, post-independence Kenya sought to expand and diversify its vocational education system. Early evidence of this is found in Sessional Paper No. 1 of 1986, which emphasized vocational education as a means to drive industrialization. However, due to the policy development inefficiencies of several key actors, these stated goals did not receive adequate funding, and over time, vocational schools failed to update their curricula, which resulted in mismatched skills and the common social stigma towards vocational education (Afeti & Adubra, 2012).

A prominent feature of Kenya's TVET system is its overreliance on the production of purely basic horticulture- and agriculture-based skills. These trumped more productive skillsets that are required to diversify the economic productivity of the country. To date, the country struggles to introduce the industry-relevant skills and technological competencies required to transform the economy. However, from a contrarian perspective, the inability to modernize and adequately match

vocational skills with changing landscapes in the labor market cannot summarily be tied to the colonial era alone. In reviewing the entire stagnation in reforming the education system and in particular vocational education in Kenya, it would not be prudent to ignore—for review purposes—the structural systems that have, for ages, dictated vocational education in the country.

Nigeria

Vocational education in Nigeria was largely instituted to supply artisans and technicians for colonial infrastructure projects (Fafunwa, 1974; Ikpe, 2010). Initial vocational education predominantly occurred in missionary institutions rather than in government schools. Such education concentrated on agriculture, woodworking, and tailoring (Nwagwu, 1976a, 1976b). Urevbu (1985) and Afeti and Adubra (2012) asserted that this structure was designed to cultivate an obedient workforce rather than to foster innovation. Consequently, Nigeria continued to prioritize low-skilled training above business education following its independence. This trend continues to persist despite the National Policy on Education introduced in 2014 (Adebisi, 2014; FME, 2021) advocating for a transformation in TVET. Colonial-era issues continue to hinder the effectiveness of TVET reforms because of outdated curricula, insufficient funding, and weak connections to the business sector (Allen, 2020; Fafunwa, 1974; Ikpe, 2010). Urevbu was one of the earliest researchers to note that vocational education in the country was not necessarily aimed at fostering innovation; instead, it aimed to create a compliant labor force (Urevbu, 1985).

As a result of the strict reliance on producing a compliant labor force, Nigeria struggled to break free from its colonial legacy post-independence. Later scholars lamented the same, emphasizing that postindependence Nigeria continued to insist on producing low-skilled labor rather than fostering technological advancement and entrepreneurship (Oketch, 2007), a route that would support the burgeoning economic growth in the country, propelled by, among others, booms in oil drilling and other primary industries. Nigeria has made efforts to modernize its vocational education, including the introduction of the National Policy on Education (2014), which, among policies, aims to reorient the TVET system towards skill acquisition and self-reliance. However, the country suffers from cross-cutting issues that trump the effects of the colonial era. Nigeria's TVET system, like others across Africa, remains underfunded, with outdated curricula and a lack of industry partnerships, which hinders reform (Allen, 2020; Ikpe, 2010).

Ghana

The colonial vocational system in Ghana was established by the British mainly to train artisans, as in the Nigerian system. Another element was introduced in the Ghanaian system that included training personnel for clerks and administrative roles. However, these were also aimed at supporting agricultural exports (Lindsay, 1976; McWilliam & Kwamena-Poh, 1975). Other recent scholars have noted that vocational education evolved in Ghana to emphasize not only basic skills and competencies but also fostered innovation and entrepreneurship (McGrath et al., 2018). Despite initiatives such as the Education Strategic Plan (2010-2020), Ghana's capacity to modernize its TVET system and align it with evolving labor market demands remains obstructed by colonial legacies, including outdated infrastructure, insufficient industry connections, and persistent stigma (Aldossari, 2020) associated with studying vocational education instead of general education (Tagoe et al., 2022).

The Education Strategic Plan (2010-2020) became one of several policies implemented to modernize Ghana's TVET system since independence (Ansah et al., 2025). The strategic plan aims to prioritize technical education to address youth unemployment. However, despite these policy changes, researchers continue to observe that vocational education in Ghana faces challenges quite similar to those faced by other countries in Africa, such as outdated infrastructure, limited industry collaboration, and a lack of qualified instructors (Tagoe et al., 2022). Among the countries reviewed, Ghana appears to be a system in which vocational education during the colonial era, due to the economy's export-oriented nature propelled by cocoa cashew nuts and other products, may have forced the administrators of the time to include training influenced by these economic conditions. This remains useful in post-independence Ghana, at least to the degree to which the economy relies on these exports.

Zimbabwe

Vocational education in Zimbabwe, then known as Southern Rhodesia, was introduced by the colonial government to train a labor force for European-owned farms, mines, and factories (Nherera, 1994). Mirroring the apartheid system that prevailed in neighboring South Africa, students of African descent were restricted to basic technical skills, while advanced training was reserved for students of European descent (Zvobgo, 1996). Similar to Lesotho and Nigeria, the missionary schools in Zimbabwe were instrumental in providing vocational training. These schools largely emphasized vocational skills in agriculture and other domestic work to support the industries to which the colonial administrators were engaged.

Zimbabwe also sought to reform its vocational education system immediately after it attained its independence. Post-independence reforms, such as the Manpower Planning and Development Act (1984), were formulated to expand access to vocational training and

align it with national development goals (Dube & Xie, 2018). In an ominous pattern, however, the Zimbabwean vocational education system remains constrained by inadequate funding, outdated equipment, and a lingering perception of vocational education as a second-tier form of education (Bhowa & Aribino, 2024; UNESCO, 2012). The elongated restrictions on natives' access to high-level technical skills have resulted in prolonged stagnation in the development of responsive policies and implementation to produce required technical skills to drive economic transformation. However, as in several reviewed systems across Africa, colonial linkages and systems alone cannot explain the lack of investment in policy development and, most importantly, responsive implementation and related research in such countries.

This study argues that Zimbabwe's colonial education structures, which existed in classed tiers, cannot be ignored in the analysis of why it remains difficult to accurately describe vocational education policy stagnation in the theoretical realm, taking into account the political and socio-economic settings that prevailed immediately after the country had gained its independence as well as the economic restrictions the country continues to experience as a result of attempted economic reforms. This study's contribution to this discourse is that resource allocation designs that fit previous education systems in particular—and the desire to continue familiar syllabuses in curricula that were carried within the former vocational education infrastructure—may manifest themselves in complex approaches and competing ideas among current policymakers. This phenomenon ultimately makes it difficult to draw a line between impasses of colonial legacies in approach and modern pragmatism of policy diffusion from successful systems. The enduring influence of colonial-era class stratification, coupled with the economic challenges of the country following its independence, accounts for the currently ongoing policy paralysis. Thus, resource distribution and curricular stagnation remain indicative of the strategies established in Southern Rhodesia (Bhowa & Aribino, 2024; UNESCO, 2012).

Vocational education systems across the reviewed systems in South Africa, Kenya, Nigeria, Ghana, and Zimbabwe share strikingly common challenges rooted in their initial colonial histories. Frequent references to broader TVET systems have been made by researchers in each of these systems (Allais, 2020; McGrath et al., 2020a; Ngcwangu, 2015). These include references to inadequate funding, outdated curricula, and societal stigma against vocational education. Evidence of progress and attempts to modernize vocational education systems in these countries has been identified. Kenya and Ghana appear to have made significant efforts to more deeply integrate their vocational

education systems into their national strategies. South Africa, on the other hand, places emphasis on inclusivity and skills for digital economies. Lastly, Nigeria and Zimbabwe prioritize reforms to enhance industry linkages and improve training quality.

TVET systems in francophone Africa

Reviews on Francophone Africa are limited, partly due to the body of published literature in the English language. Nonetheless, a condensed review was undertaken for comparative purposes. In Francophone Africa, the colonial approach to vocational education has not been found to differ significantly from the approaches adopted primarily in Anglophone African colonies. Across the five case studies reviewed (Benin, Senegal, Cameroon, Mauritania, and Mauritius), colonial powers established vocational tracks narrowly tailored to supply clerical, agricultural, or artisanal labor for their administrations and enterprises. In French West Africa ("éducation adaptée" [adapted education]), vocational education schemes combined basic literacy with farm and craft training, while in British territories, vocational skills were often imparted through missionary or apprenticeship programs. Post-independence TVET reforms in each country continue to confront curricula inherited from colonial templates, constrained resources, and the social stigmas rooted in these early systems.

Benin

Benin's education under colonial Dahomey was first imposed by France after 1892. This replaced indigenous Qur'anic and apprenticeship schools with a system designed to produce interpreters, clerks, and low-skill farm managers (Duke Bryant, 2020; Usuanlele, 2008). From 1903 onward, administrators adopted an "éducation adaptée" (adapted education) model that paired basic French literacy with agricultural and commercial training, which was done explicitly to staff colonial enterprises without extending French civil rights to African graduates (Duke Bryant, 2020). In 1913, the Cours normal indigène in Porto-Novo (referred to teacher-training schools for local students) formalized this approach by training assistant teachers alongside commercial and agricultural moniteurs.

Graduates in Benin were thus only prepared to take on subordinate roles in teaching, clerical work, or plantation oversight, thereby reinforcing the colonial labor hierarchy (Ndille & Litt, 2018). After Benin gained independence in 1960, the country's TVET framework remained narrowly focused on basic artisanal and agricultural skills, leading UNESCO to highlight the persistent misalignment between vocational curricula and modern economies (UNESCO, 1996). Recent calls for reform emphasize industry partnerships, competency-based curricula aligned to global standards,

and the elevation of vocational pathways to parity with academic ones (Wantchekon et al., 2015).

Senegal

As France's earliest foothold in West Africa, Senegal saw the establishment of government-run French schools in Saint-Louis by 1817. These schools were primarily designed to train clerks and interpreters for the colonial administration. Missionary orders, especially the Holy Ghost Fathers, soon incorporated carpentry, masonry, and agricultural instruction in schools, marking the first structured vocational training for African youths (Duke Bryant, 2020). Rural "éducation adaptée" schools combined elementary French with craft and farm skills to produce compliant, semi-skilled workforces.

Simultaneously, the "hostage schools" of 1855 educated sons of chiefs in French customs. In this context, education was used for political control rather than genuine skill development. Indigenous apprenticeship guilds were undermined as French schooling monopolized vocational instruction (UNESCO, 1996). By the time Senegal became independent, an insufficient number of dedicated technical institutes existed, and colonial language and institutional legacies still hampered technical workforce readiness. The post-1970s TVET expansion in the country has established vocational lycées and instituts de formation (vocational high schools and training institutes); however, aligning curricula with industry demands and improving vocational prestige remain ongoing challenges.

Cameroon

Cameroon, originally a German colony from 1884, was partitioned into French and British mandates in 1916, creating dual educational regimes that lasted until 1961 (Gwanfogbe, 1995). In French Cameroun, assimilationist schools focused on language and civil-service preparation, with few écoles professionnelles (referred to professional or vocational schools) offering rudimentary trades (Ndille & Litt, 2018). In British Cameroon, missionary societies, most notably the Baptist Missionary Society, led vocational training through teacher-training courses and apprenticeships in carpentry and agriculture (Dupraz, 2017). After reunification, Cameroon inherited this bifurcated system and struggled to harmonize Anglophone apprenticeship strengths with Francophone academic norms (UNESCO, 1996). Current TVET reforms aim to integrate best practices from both traditions; however, uneven resource allocation and institutional inertia have slowed progress, and many polytechnic institutes remain underequipped relative to industry needs.

Mauritania

Colonial Mauritania, which was part of French West

Africa, had its first public schools established in the Sénégal River Valley in the late colonial period, with teacher-training centers at Boutilimit in 1950, and Rosso in 1957. These centers intended to staff primary schools rather than deliver vocational skills (Sidelemine, 2023). Colonial ordinances standardized primary education across the Afrique Occidentale Française (AOF) or French West Africa, but offered virtually no technical pathways; most vocational learning occurred informally or through the efforts of missionaries (Pettigrew, 2007). Only after independence did Mauritania formalize its TVET, system bygradually introducing dual-training models inspired by the French Centres de formation d'apprentis to fill gaps left by colonial neglect (Atchoarena & Delluc, 2002). Today, technical institutes still cluster in urban areas, with its curricula often echoing outdated colonial standards. Coordination among stakeholders has remained weak, prompting recent government-led reforms.

Mauritius

The successive French (1715-1810) and British (1810-1968) regimes in Mauritius resulted in the layering of distinct educational policies in the country. French settlers primarily educated elite colonists, while slaves and free communities relied on informal apprenticeships (Prithipaul, 1973). After the abolition of slavery in the country (1835-1839), the British introduced an apprenticeship ordinance that bound ex-slaves to planters and functioned as a form of mandatory vocational training in plantation tasks (Prithipaul, 1973). Formal schools under British rule remained academically oriented (e.g., Royal College Curepipe), while vocational training relied on indentured labor schemes. Only in 1988 did the state centralize vocational training by founding the Industrial and Vocational Training Board (IVTB), marking a shift toward demand-driven, industry-aligned TVET (Atchoarena & Delluc, 2002). Despite these reforms, vocational tracks still struggle for parity with academic routes, and overcoming historical biases against technical education remains central to current policy debates.

In summary, these systems all share certain aspects and features. Both Francophone and Anglophone states faced difficulties dismantling the colonial legacies of their vocational education systems following independence, as these systems were designed to produce low-skilled labor rather than to foster innovation and entrepreneurship, the tenets of which remain visible in their current systems. These factors limited policymakers' effectiveness in addressing contemporary challenges. Thus, these histories and origins of vocational education in these countries may continue to play intervening roles in further understanding why vocational education in these countries and alike struggle to develop responsive

policies for specific, local labor market needs.

Furthermore, researchers and policymakers may explore other cultural perspectives to drive policy coalitions toward a pragmatic view of the origins of vocational education. This study builds on studies of vocational education during the colonial era and finds that, given the documented structural issues borne of transforming education post this period, vocational education may have existed in other forms better suited applications in local contexts.

ANALYSIS OF CHALLENGES FACING AFRICAN TVET SYSTEMS

This analysis synthesizes results from the 38 peerreviewed studies via iterative coding to identify three principal themes: (1) the historical structures of colonial TVET, which have generated curricula and institutional hierarchies misaligned with current needs; (2) structural impediments in implementation, which cover chronic underfunding, obsolete curricula, and fragmented governance, which have been partially mitigated by initiatives such as China's Luban Workshops; and (3) persistent colonial legacies in policy and resource allocation, which manifest in bureaucratic inertia, stigma towards vocational pathways, and the inequitable geographic distribution of TVET infrastructure. Structuring the dialogue around these subjects elucidates the reasons behind the failure of post-independence reforms and demonstrates how best to formulate decolonized and effective TVET strategies.

Historical structures of colonial TVET systems

Contemporary African TVET originates from the colonial period, during which British and French administrations established vocational programs primarily for the purpose of benefiting the economies and governance of their colonies rather than to assist the local populations. In British West Africa, vocational schools in Nigeria and Ghana, for example, provided instruction on essential trades, such as carpentry, tailoring, and agriculture, to ensure a sufficient supply of semi-skilled labor for railways, plantations, and emerging industrial initiatives (Ikpe, 2010; Nwagwu, 1976a). This concept assumed that Africans would occupy subordinate economic positions with little access to advanced technical education or leadership opportunities.

The French colonial administration in West and Central Africa employed a similar mindset. The Écoles d'Initiation Agricole in Senegal and the Écoles de Travaux Publics in Cameroon emphasized fundamental agricultural skills and maintenance occupations

(Assignon, 2017; Evans, 1994). The British and French methodologies were predicated on the concept of "civilizing mission", perceiving Africans as recipients of European "modernity". Nonetheless, this concept exacerbated social stratification by confining superior technical knowledge to European enclaves. Consequently, colonial TVET institutions remained segregated: Affluent colleges were catered to European settlers or local elites, while rural and indigenous populations received minimal assistance and outdated technology (Ndille & Litt, 2018).

In British Southern Africa (present-day Zimbabwe and Zambia), mission-operated technical institutes offered fundamental skill training under substandard conditions, marked by insufficient staffing, obsolete machinery, and curricula that were misaligned with technological progress (Bhowa & Aribino, 2024; McWilliam & Kwamena-Poh, 1975). The division between urban and rural areas resulted in enduring disparities among regions, with cities receiving technological capital absent from rural locales. Upon gaining independence in the 1960s, newly sovereign nations assumed control over TVET programs designed to reinforce a hierarchical labor structure rather than to enhance individual autonomy over personal lives and the economy.

Post-independence efforts to modify TVET to align with national development objectives, such as Ghana's 1961 National Vocational Education Plan and Nigeria's 1977 TVET reforms, were hampered by deeply rooted colonial legacies. Curricula remained rigid, and educators typically lacked advanced technical expertise. Moreover, training facilities were outdated relative to contemporary business requirements. Consequently, TVET institutions struggled to transcend their fundamental objective of cultivating compliant, low-skilled laborers. Identifying and abolishing these historical mechanisms is a crucial preliminary step in carrying out substantial TVET reforms across Africa.

Structural impediments TVET to implementation

While colonial frameworks have established the foundation of TVET, the execution of TVET reforms in post-independence Africa has encountered persistent structural challenges. Three primary issues with implementation are evident: (1) institutions without sufficient financial resources, (2) curricula and pedagogical approaches that are outdated or incongruent, and (3) ineffective governance characterized by fragmented oversight and minimal stakeholder engagement. In this context, the Luban Workshops initiative demonstrates how targeted activities might begin to address these systemic issues. The introduction of the initiative in 14 countries across Africa chiefly aims

to address deficiencies in curriculum design, specialist teacher training and incorporation of innovative technologies in teaching and learning.

Underfunded institutions and resource scarcity

Numerous African TVET institutions continue to receive insufficient funding, resulting in outdated and deteriorated facilities, equipment, and instructional resources. Colonial funding structures prioritized academic universities and clerical training for administrative elites; upon independence, general education (primary and secondary schooling) continued to receive the majority of state financial allocations. Consequently, vocational colleges and technical institutes have been overlooked for decades by policymakers (Bennell, 2022). A 2021 survey in Ghana revealed that over 60% of TVET workshops in the country lacked functional equipment. Less than 50% of state polytechnics in Kenya were found to possess functional computer laboratories (Oti-Agyen, 2023; Tagoe et al., 2022). These deficiencies in resources hinder students from acquiring practical experience with industry-standard tools and cause educators to frequently struggle to maintain their professional growth due to outdated facilities.

Obsolete or misaligned curricula and pedagogy

Many African TVET systems continue to employ colonial-era frameworks that prioritize manual and artisanal skills over technical sophistication, creativity, or entrepreneurial acumen. In Nigeria, iterations of the 1968 syllabus have persisted with only modest modifications, lacking the incorporation of digital technologies or emerging domains, such as renewable energy (Allen, 2020). Francophone countries such as Benin and Senegal continue to employ vocational curricula derived from 1950s agricultural extension programs—a decision that is mostly misaligned with contemporary market demands (Duke Bryant, 2020). Pedagogical practices across reviewed TVET systems demonstrate inertia: Many educators rely on rote memorization and didactic, teacher-centered strategies rather than learner-centered, competency-based approaches (Powell & McGrath, 2014). A significant disparity between the knowledge acquired by students and the requirements of employers exists, resulting in a substantial number of graduates being unemployed despite large student populations.

Deficiencies in governance and fragmented oversight

Effective TVET requires well-defined governance frameworks that integrate policy, funding, and partnerships with industry. Numerous African nations exhibit fragmented oversight, since their ministries of education, labor, and industry frequently possess overlapping authorities in TVET planning, resulting in task duplication, contradicting standards, and protracted decision-making (Ansah et al., 2025; Ngcwangu, 2015). In Mozambique, for example, the division between the Ministry of Education and the Ministry of Labor has resulted in complications regarding accreditation and financial distribution, creating uncertainty for schools regarding reporting protocols and quality assurance (UNESCO, 2012). Furthermore, stakeholder engagement, particularly with private-sector enterprises, remains limited in the fields of curriculum design and skill certification. Due to insufficient sector input, TVET systems struggle to produce graduates with skills aligned with employer requirements. This has resulted in elevated youth unemployment levels despite an increase in program enrollment (Allen, 2020)).

Initiatives at Luban Workshops

China's Luban Workshops are strategic initiatives aimed at addressing deficiencies in resources, curriculum, and pedagogical approaches in TVET systems and act as a response to these enduring challenges. The Luban Workshop initiative was initiated in 2015 and administered by China's Ministry of Education in collaboration with African governments and local universities. The initiative has since established 16 centers throughout 14 African countries (Wang, 2024). Workshops under this initiative involve innovative technologies, specialist teacher training, and updated curricula designed to move students away from colonialera vocational models to meet the demands of 21st-century enterprises (Zong, 2024).

Addis Ababa Technical College and Tianjin Vocational Technical Normal University collaborated to establish a Luban Workshop in Ethiopia, specializing in electrical engineering and mechatronics. The center features practical laboratories equipped with programmable logic controllers (PLCs), industrial robotics simulators, and renewable energy demonstration units. These instruments were previously unavailable at Ethiopian TVET. The Luban Workshop at Ningbo Vocational Technical College in Benin specializes in agro-processing and food technology. It possesses modern milling machines, quality control laboratories, and systems for cold chain management. Chinese educators collaborate with local instructors at both locations to facilitate mutual learning among students and enhance the quality of instruction.

Luban Workshops further enhance learning experiences by utilizing WorldSkills Competition frameworks, which offer soft-skill courses, such as project management, cross-cultural communication, and entrepreneurship. In 2022, the Accra Technical Training Centre in Ghana hosted a WorldSkills qualification event with technical competitions in Computer Numerical Control (CNC) machining and vehicle maintenance alongside training on collaboration and project pitching (WorldSkills,

2022). This combination goes against colonial norms, which prioritize manual labor above critical thinking and entrepreneurial initiative. Luban Workshops collaborate with private enterprises, including equipment manufacturers and global agribusinesses, to develop curricula that align students' education with employment opportunities that correspond to their acquired abilities.

Although the initiative is still in its preliminary stages, initial evaluations indicate that Luban Workshops graduates have a higher likelihood of securing employment than non-graduates. The Lusaka Luban Workshop in Zambia reported a 68% job placement rate within six months post-graduation, significantly exceeding the national average of 42% for other TVET programs (Luo & Liang, 2024). These findings underscore the necessity of investing in contemporary resources, pertinent curricula, and partnerships with businesses to overcome structural issues that have persisted since the colonial era.

Persistent influence of colonial legacies on policy and resources

Colonial legacies persistently influence TVET policy-making, resource distribution, and societal perceptions, despite ongoing structural reforms. Three significant factors contribute to this persistent influence: (1) policy inertia and apprehension regarding failure, (2) the stigma and societal perception of TVET, and (3) inequitable resource allocation rooted in regional and socioeconomic disparities from the colonial era.

Policy inertia and risk aversion

Colonial authorities established TVET to produce compliant laborers, and post-independence bureaucratic standards have frequently perpetuated similar risk-averse mindsets. Policymakers in postcolonial African countries frequently adopt and maintain colonial-era regulatory structures, fearing that substantial curricular modifications or novel training methods may provoke political backlash or financial instability. In Zimbabwe, efforts to introduce competency-based education in 2008 were obstructed by bureaucratic inertia and cynicism regarding alternative teaching methods (Bhowa & Aribino, 2024). The 2015 TVET reform in Senegal, which intended to incorporate entrepreneurial modules, faced numerous delays due to ministerial changes and divergent objectives among its sponsors. Consequently, the final policy paper primarily constituted a wish list that lacked concrete strategies for implementation (UNESCO, 1996). The absence of policy action hinders substantial reforms, resulting in TVET systems implementing only minor adjustments that perpetuate colonial-era educational structures.

Stigma and societal valuation of TVET

Vocational education in numerous African regions is perceived as a pathway for students unable to secure admission to academic secondary schools. This concept originates from colonial structures that privileged professional, white-collar roles above all else. A 2022 survey in Ghana indicated that 68% of parents perceived vocational colleges as being subordinate to senior high schools—a viewpoint influenced by British colonial narratives (Tagoe et al., 2022). In Kenya, secondary school students often opt into TVET as a last resort after failing university entrance examinations (Oti-Agyen, 2023). This devaluation diminishes the likelihood of enrollment, reduces legislators' willingness to allocate sufficient funds to vocational centers, and discourages experienced educators from pursuing careers in TVET over more prestigious academic positions. Youth unemployment rates have increased despite governments expanding access to TVET, which is perceived as a secondary option rather than a viable career trajectory.

Disparity in resource allocation and geographical divisions

Colonial administrations established vocational infrastructure mostly in urban centers or regions significant for resource extraction, such as mining towns, port cities, and plantation areas. Post-independence, political elites generally perpetuated these trends by allocating limited TVET funding to regions with greater political influence rather than to those in genuine need. The federal-state allocation system in Nigeria has predominantly benefited southern states with robust industrial foundations; in contrast, northern regions, characterized by a significant rural population, have been deprived of adequate resources (Allen, 2020; Lemo & Ehud, 2024). In Francophone West Africa, the majority of TVET investments were directed toward the central highlands of Cameroon. Conversely, the Far North and East regions continued to depend on mission schools that lacked sufficient funding (Duke Bryant, 2020). These inequities exacerbate regional disparities in employment outcomes and incite social discord, as marginalized people perceive the neglect of TVET to be a perpetuation of colonial exploitation.

Governments must intentionally decolonize TVET policy by prioritizing historically marginalized regions, incentivizing skilled educators to work in rural areas, and promoting community control of vocational facilities. Furthermore, continuous media efforts and collaborations between the public and private sectors can encourage perceptions of TVET as a viable and esteemed career trajectory, thereby contesting entrenched colonial notions and restoring vocational careers to their rightful status.

CONCLUSION

The study finds that vocational education systems in Africa remain partially tied to African countries' colonial settings, which left them with curricula aimed at producing low-level clerks and administrators. Important reforms across the continent have rightly recognized the need to ensure that heavy, theory-focused program are transformed to ensure that graduates possess practical skills. Global partnerships such as those of the Luban Workshops under the Belt and Road Initiative appear to have made significant differences in practice and implementation. The studies highlighted in the analysis shed details on how this program addresses the inefficacies brought by the legacies of colonial systems across Africa. This results in the upskilling of youth in a labor-order-style fashion, thereby ensuring that every graduate moves toward open positions in their respective industries.

Despite these advancements, vocational education in Africa remains in catch-up mode in terms of developing basic employability skills. TVET outside Africa has rightly taken a more prominent, transformed role in relatively more developed education systems, such as that of China. This is the result of well-documented and researched competition in China and the growing need for practical, industry-relevant skills that the productive sectors deem highly in demand. On the other hand, university degree curricula have struggled to catch up with rapid changes in more digitized, knowledge-based, and tech-driven industries. This transformation is further evidenced through the increasing demand for digitized technical skills required by industries inherently shaped by developments in big data analysis.

These changes include advances in machine learning, mobile applications that require coding skills, and digital diagnostic tools in production-focused industries, including agriculture. These constitute skills that online technical training providers spearhead through the digitization of TVET. Therefore, for African vocational education systems to take full advantage of the benefits these skills provide, policymakers will have to drastically change their paradigms and frames of reference when approaching policy reforms. They must rid themselves of any legacy that does not conform to the actual needs of the vocational education contexts in their countries and seek partnerships that advance their policy goals and result in improved student outcomes.

Recommendations

This study indicates that significant challenges remain in vocational education provision due to unresponsive policies or outcomes that do not match policy objectives. Several studies in the review (Powell & McGrath, 2014; Nilsen & Gustafsson, 2016) have shown that student outcomes remain the main obstacle across different countries in Africa, as more youth find it difficult to secure employment after graduation, as the

continent struggles to create the minimum 18 million jobs annually until 2035 to accommodate new entrants (Fox & Gandhi, 2021). This study recommends that in countries in which policy formulation appears constrained by rigid adherences to past standards imposed by former colonial administrators, policymakers must prioritize reform focused on eradicating all vague adherences to archaic, colonial-era inspired forms of education, particularly in vocational education. Reforms can be focused on addressing several key issues that the study has identified in the literature synthesis to be the primary impacted areas.

Governance reform

In accordance with Theme 2's identification of implementation shortcomings, authorities should adjust TVET governance frameworks to align with local labor-market conditions rather than maintain colonial hierarchies. Empowering provincial TVET boards to make these choices ensures that resources are allocated in accordance with the economic requirements of each region, as is being implemented in Kenya and Ghana (Afeti & Adubra, 2012; Ansah et al., 2025).

Curriculum redesign

In response to Theme 1's critique of curricula rooted in colonial objectives, national TVET authorities must revise syllabi to emphasize skills pertinent to the workplace. Competency-based modules that are collaboratively designed with private-sector partners can replace theory-heavy courses that produce graduates insufficiently equipped for work in modern industries (Liang *et al.*, 2022; Matli & Ngoepe, 2019).

Pedagogical innovation

To address persistent colonial mindsets (Theme 3), inservice teacher training programs must prioritize modern instructional methodologies—such as project-based learning and digital simulations—over conventional techniques rooted in colonial-era teaching manuals (Powell & McGrath, 2014). Data from Luban Workshops demonstrate that the integration of practical laboratories with soft-skill modules improves both technical proficiency and entrepreneurial inclinations (Luo & Liang, 2024).

African TVET authorities should engage in bilateral partnerships with foreign universities to exchange expertise, secure funding for equipment enhancements, and collaboratively develop curricula, drawing on the successful models established in Mauritius and Senegal (Atchoarena & Delluc, 2002; UNESCO, 1996). These relationships can help dismantle any colonial tendencies of isolation and promote the exchange of information. Sino-African partnerships are an example of this (Wang, 2024; Zong, 2024).

Governments must establish a framework for systematic, evidence-driven reviews of TVET policy, considering labor market fluctuations and stakeholder feedback. Regular audits can reveal discrepancies between policy objectives and outcomes (Bennell, 2022; Ngcwangu, 2015), thereby ensuring that TVET regulations remain adaptable and that they do not devolve into obsolete artifacts.

An examination of curriculum that prioritizes practice must be undertaken and scrutinized with a fresh perspective and a focus on ensuring that vocational education programs are not designed merely to fit longheld and recognized curriculum design methods in the face of poor outcomes. Curriculum that appears to be embedded in banking methods that, according to researchers, (Alla-Mensah & McGrath, 2023; Fafunwa, 1974; Tafadzwa, 2022) were not manned to produce highly skilled technical experts, but rather mere clerks and administrators, must be reformed. Policymakers must further ensure that teaching methods prioritize and import new styles of teaching that help to transfer real technical skills; they must do away with purely theoryfocused methods that were designed to simply ensure that colonial subjects followed the orders of their colonial masters without regard to understanding technical concepts that can inspire innovation and entrepreneurship.

Contributions to knowledge

This study sheds light on the socio-political and cultural contexts of African TVET systems. This, therefore, can contribute the development of a meaningful understanding and theorization of how vocational education policies in Africa can be transformed. The study contributes significant sources of policy in Africa and how policymakers approach development and reform. This can aid researchers in undertaking further studies on individual areas and countries to determine other facets of policy reforms in vocational education. The study chiefly highlights the contexts that other researchers have found to be missing links in understanding the developmental history of vocational education, which have therefore failed to be described in the theory and application of concepts for the evaluation of policy effectiveness.

Limitations and future studies

While this study covers multiple countries in Africa, these selected countries do not constitute the majority of African countries. Therefore, caution should be applied when generalizing the study's findings. This study provides a partial analysis of the colonial effects in Africa, which can be implied as the study's general context. Further studies can build on the present study by examining other regions, particularly those whose

origins were not covered, to paint an even more vivid picture of the remaining effects of colonial pasts on vocational education systems in Africa. Further studies can be conducted to examine specific components of vocational education in Africa, including any remaining or lingering colonial effects on curriculum design, teaching, and instruction in policy design. Such studies can address the impact of such tendencies and how they can be addressed.

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REFERENCES

- Adebisi, T. A. (2014). Higher education and skills development: An overview of Nigerian National Policy on Education (NPE). *International Journal of Development and Sustainability*, 3(12), 2218-2227.
- Afeti, G., & Adubra, A. L. (2012). Lifelong Technical and Vocational Skills

 Development for Sustainable Socioeconomic Growth in Africa

 Promoting Critical Knowledge. In G. Afeti, & A. L. Adubra (Eds.),

 Skills and Qualifications for Sustainable Development in Africa (pp. 2-43).

 ADEA
- Aldossari, A. S. (2020). Vision 2030 and reducing the stigma of vocational and technical training among Saudi Arabian students. Empirical Research in Vocational Education and Training, 12(1), 3. https://doi.org/10.1186/ s40461-020-00089-6
- Allais, S. (2020). Skills for industrialisation in sub-Saharan African countries: why is systemic reform of technical and vocational systems so persistently unsuccessful? *Journal of Vocational Education and Training, 74* (3), 475-493. https://doi.org/10.1080/13636820.2020.1782455
- Alla-Mensah, J., & McGrath, S. (2023). A capability approach to understanding the role of informal apprenticeship in the human development of informal apprentices. *Journal of Vocational Education & Training*, 75(4), 677-696. https://doi.org/10.1080/13636820.2021. 1951332

- Allen, J. E. (2020). Challenges and Prospect of Vocational Technical Education and Training in Tertiary Institution in South-South, Nigeria. Vocational and Technical Education Journal, 2(1), 273-278.
- Amatsimbi, H. (2024). The history of rural service programme in Kenya, 1903-1978. NG Journal of Social Development, 14(1), 107-120. https://doi. org/10.4314/ngisd.v14i1.8
- Ansah, F., Swanzy, P., Obeng, R. A., & Asmah, A. K. (2025). Attractiveness of technical vocational education and training among Ghanaian youthany sign of hope? *Education + Training*, 67(3), 346-360. https://doi.org/ 10.1108/et-09-2023-0388
- Assignon, E. R. (2017). Why the TVET System of French-Speaking African Countries is Not Able to Produce a Highly Qualified and Operational Man Power? A Comparison with Canadian Community Colleges. In R. Latiner Raby, & E. J. Valeau (Eds.), Handbook of Comparative Studies on Community Colleges and Global Counterparts (pp. 1-22). Springer International Publishing. https://doi.org/10.1007/978-3-319-38909-7_
- Atchoarena, D., & Delluc, A. (2002). Revisiting technical and vocational education in Sub-Saharan Africa: An update on trends, innovations and challenges. UNESCO-IIEP. Retrieved Jun. 1, 2025 from https:// unesdoc.unesco.org/ark:/48223/pf0000129354
- Bennell, P. (2021). The skills balancing act: A review of the 2019 World Bank report on skills development in Sub-Saharan Africa. Compare: A Journal of Comparative and International Education, 53(5), 731-748. https://doi.org/ 10.1080/03057925.2021.1956878
- Bennell, P. (2022). Practising what you preach, preaching what you practice: World bank support for technical and vocational education and training in sub-Saharan Africa. *Compare: A Journal of Comparative and International Education*, 53(8), 1410-1428. https://doi.org/10.1080/03057925.2022. 2036594
- Bhowa, M., & Aribino, N. (2024). Education with production or education pragmatism as solution to the skills shortage in Zimbabwe: policy with continuity? *Lighthouse: the Zimbabwe Ezekiel Guti University Journal of Law, Economics and Public Policy, 3*(1&2), 136-160. https://doi.org/10.71458/pwt67g20
- Bogonko, S. N. (1992a). A history of modern education in Kenya (1895-1991). Evans Brothers (Kenya).
- Bogonko, S. N. (1992b). Reflections on Education in East Africa. Oxford University Press.
- Christie, P. (1991). The right to learn: the struggle for education in South Africa. Ravan
- Dube, N. M., & Xie, S. (2018). The development of technical and vocational education in Zimbabwe. *Journal of Progressive Research in Social Sciences* (JPRSS), 8(1), 614-623. https://doi.org/10.5281/zenodo.3971920
- Duke Bryant, K. (2020). Education and politics in colonial French West Africa. Oxford Research Encyclopedia of African History. https://doi.org/10. 1093/acrefore/9780190277734.013.679
- Dupraz, Y. (2017). French and British colonial legacies in education: Evidence from the partition of Cameroon. CAGE Online Working Paper Series, Retrieved June 1, 2025, from https://ideas.repec.org/p/cge/wacage/ 333.html
- Ekuma, K. (2019). Postcolonialism and national HRD: Understanding contemporary challenges to skills development in sub-Saharan Africa. Human Resource Development International, 22(4), 321-342. https://doi.org/ 10.1080/13678868.2019.1612651
- Evans, D. R. (1994). Education policy formation in Africa education policy formation in Africa: A comparative study of five countries. ERIC. Retrieved June 1, 2025, from https://files.eric.ed.gov/fulltext/ ED384958.pdf
- Fafunwa, A. B. (1974). History of education in Nigeria. Routledge. https://doi. org/10.4324/9780429454905
- Fleisch, B. (2008). Primary education in crisis: Why South African schoolchildren underachieve in reading and mathematics. Juta.
- Fletcher, K. A. Perceptions of contemporary effects of colonialism among educational professionals in Ghana. University of Massachusetts

- Amherst (Thesis). 2013.
- FME. (2021). Reviewed national policy on education management information system (EMIS) and implementation guidelines. Federal Ministry of Education. Retrieved June 1, 2025, from https://planipolis.iiep.unesco.org/sites/default/files/ressources/nigeria_REVIEWED-NATIONAL-POLICY-ON-EMIS-2.pdf
- Fox, L., & Gandhi, D. (2021). Youth employment in sub-Saharan Africa Progress and prospects. Africa Growth Initiative at Brookings.
- Gwanfogbe, M. B. (1995). Changing regimes and the development of education in Cameroon. Retrieved June 1, 2025, from https://core.ac.uk/download/pdf/111053391.pdf
- Ikpe, U. N. (2010). Vocational-technical education in Nigeria: a review. Global Journal of Educational Research, 9(1-2), 33-39. https://doi.org/10.4314/ gjedr.v9i1-2.62519
- Jessop, B. (2010). Cultural political economy and critical policy studies. Critical Policy Studies, 3(3-4), 336-356. https://doi.org/10.1080/ 19460171003619741
- Jessop, B., & Sum, N. L. (2022). Cultural political economy. In S. Frank, D. Primrose, & T. Thornton (Eds.), Handbook of Alternative Theories of Political Economy (pp. 355-370). Edward Elgar Publishing. https://doi.org/10.4337/9781789909067.00034
- Lemo, O. O., & Ehud, M. M. (2024). Enhancing the role of TVET educators in driving innovation and grassroots development in Nigeria amidst global economic challenges. 2ND Hybrid International Conference.
- Liang, X., Nkahiga, K., Vasiliev, K., Kiura, A., Gebreyohannes, B., & Mulindwa, I. (2022, June 9). Flagship TVET project: A few sparks can light a prairie fire. University World News-Africa Edition. Retrieved April 18, 2025, from https://www.universityworldnews.com/post. php?story=20220607100438469
- Lindsay, B. (1976). The development of education in Ghana by H. O. A. McWilliam and M. A. kWamena-poh london, longman, 1975. pp. 151. £1.05 paperback. *The Journal of Modern African Studies*, 14(4), 721-722. https://doi.org/10.1017/s0022278x00053830
- Luo, Y., & Liang, M. (2024). Reflections on career development of worldSkills competition winners in the context of skills-based society: An analysis of awardees from four provinces and cities in the Yangtze river delta. Vocation, Technology & Education, 1(4), 36. https://doi.org/10.54844/vte. 2024.0764
- Makgato, M. (2020). STEM for Sustainable Skills for the Fourth Industrial Revolution: Snapshot at Some TVET Colleges in South Africa. In K. G. Fomunyam (Ed.), Theorizing STEM Education in the 21st Century. https://doi.org/10.5772/intechopen.89294
- Matli, W., & Ngoepe, M. (2019). Capitalizing on digital literacy skills for capacity development of people who are not in education, employment or training in South Africa. African Journal of Science, Technology, Innovation and Development, 12(2), 129-139. https://doi.org/10.1080/20421338. 2019.1624008
- McGrath, S., Alla-Mensah, J., & Langthaler, M. (2018). Skills for decent work, life and sustainable development: Vocational education and the sustainable development goals. ECONSTOR.
- McGrath, S., Powell, L., Alla-Mensah, J., Hilal, R., & Suart, R. (2020a). New VET theories for new times: the critical capabilities approach to vocational education and training and its potential for theorising a transformed and transformational VET. *Journal of Vocational Education & Training*, 74(4), 575-596. https://doi.org/10.1080/13636820.2020.1786440
- McGrath, S., Ramsarup, P., Zeelen, J., Wedekind, V., Allais, S., Lotz-Sisitka, H., Monk, D., Openjuru, G., & Russon, J. A. (2020b). Vocational education and training for African development: a literature review. *Journal of Vocational Education & Training*, 72(4), 465-487. https://doi.org/10.1080/13636820.2019.1679969
- McWilliam, H. O. A., & Kwamena-Poh, M. A. (1975). The development of education in Ghana: An outline. Longman.
- MoET. (2019). Revised Lesotho qualifications framework: strategic repositioning of qualifications for education and training in Lesotho. Ministry of Education and

- Training.
- Ndille, R., & Litt, D. (2018). British and french implementation of colonial educational policies in Cameroon 1916-1961: A comparative analysis. International Journal of African Studies, 12(1), 45-67.
- Ndimande, B. S. (2013). From Bantu education to the fight for socially just education. *Equity & Excellence in Education*, 46(1), 20-35. https://doi.org/10.1080/10665684.2013.750199
- Ngcwangu, S. (2015). The ideological underpinnings of world bank TVET policy: Implications of the influence of human capital theory on South African TVET policy. *Education as Change*, 19(3), 24-45. https://doi.org/10.1080/16823206.2015.1085620
- Ngware, M. W., Ochieng', V., Kiroro, F., Hungi, N., & Muchira, J. M. (2024).

 Assessing the acquisition of whole youth development skills among students in TVET institutions in Kenya. *Journal of Vocational Education & Training*, 76(1), 197-222. https://doi.org/10.1080/13636820.2022.2029544
- Nherera, C. M. Vocationalisation of secondary education in Zimbabwe: A theoretical and empirical investigation. University of London (Thesis). 1994.
- Novelli, M., Higgins, S., Ugur, M., & Valiente, O. (2014). The political economy of education systems in conflict-affected contexts. Department for International Development.
- Nwagwu, N. A. (1976a). Equalization of educational opportunities in African countries. *Journal of Educational Administration*, 14(2), 270-278. https://doi.org/10.1108/eb009760
- Nwagwu, N. A. (1976b). The vocational aspirations and expectations of African students. The Vocational Aspect of Education, 28(71), 111-115. https://doi.org/10.1080/10408347308000701
- Oketch, M. O. (2007). To vocationalise or not to vocationalise? Perspectives on current trends and issues in technical and vocational education and training (TVET) in Africa. *International Journal of Educational Development*, 27(2), 220-234. https://doi.org/10.1016/j.ijedudev.2006.07.004
- Okolie, U. C., Elom, E. N., Igwe, P. A., Nwajiuba, C. A., Binuomote, M. O., & Igu, N. (2020). How TVET teachers foster employability skills: Insights from developing countries. *International Journal of Training Research*, 18(3), 231-249. https://doi.org/10.1080/14480220.2020.
- Olayele, T. O. E. Technical and vocational education and training (TVET) in Nigeria: A genealogical inquiry into the inferior positioning of TVET. University of Regina (Thesis). 2021.
- Oti-Agyen, P. (2023). The economic rationale for the provision of technical/vocational education (TVE) in colonial Ghana: implications for practice. *Perspectives in Education*, 41(4), 128-142. https://doi.org/10.38140/pie.v41i4.6998
- Pettigrew, E. (2007). Colonizing the Mabadra: Language, identity, and power in Mauritania under French control. Retrieved April 18, 2025, from https://escholarship.org/content/qt49p344tg/qt49p344tg_noSplash_c661c677b21b1bd7ef1b02f66b45d2a3.pdf?t=mnq1wm
- Powell, L., & McGrath, S. (2014). Exploring the value of the capability approach for vocational education and training evaluation: Reflections from south Africa. In G. Carbonnier, M. Carton, & K. King (Eds.), Education, Learning, Training: Critical Issues for Development, International Development Policy series (pp. 126-148). Brill.
- Prithipaul, D. A comparative analysis of the French and British colonial policies of education in Mauritius 1735-1899. University of Alberta Libraries (Thesis). 1973.
- Shizha, E., & Kariwo, M. T. (2011). Impact of Colonialism on Education. In E. Shizha, M. T. Kariwo (Eds.), Education and Development in Zimbahwe: A Social, Political and Economic Analysis (pp. 13-26). Brill. https://brill.com/ display/book/9789460916069/BP000003.xml
- Sidelemine, M. (2023). The colonial origins of institutions in Mauritanina. Old Dominion University. Retrieved April 18, 2025, from https:// digitalcommons.odu.edu/gsis_studentconference/2023/colonialism/3
- Spaull, N. (2013). South Africa's Education Crisis-The quality of education in South Africa 1994-2011. Centre for Development & Enterprise.

- Tafadzwa, M. (2022). Towards a new philosophy for repositioning, and repurposing technical vocational education and training for industrial engineering and operations management systems and development in Africa: A case of Zimbabwe. IEOM African Conference Proceedings, 362-379
- Tagoe, M., Addae, D., & Amuzu, D. (2022). Lifelong education trajectories and futures in Ghana: issues of policy, ideology and practice. *International Journal of Lifelong Education*, 41(3), 327-342. https://doi.org/ 10.1080/02601370.2022.2072011
- Nilsen, T., & Gustafsson, J.-E. (2016). Teacher quality, instructional quality and student outcomes: Relationships across countries, cohorts and time. Springer Cham
- UNESCO. (1996). The Development of technical and vocational education in Africa: case studies from selected countries. UNESCO.
- UNESCO. (2012). World TVET Database Zimbabwe. UNESCO.
- Unterhalter, E. (2020). Skills for human development: transforming vocational education and training/education for sustainable development in the postcolonial world: towards a transformative agenda for Africa. *Comparative Education*, 56(2), 310-313. https://doi.org/10.1080/03050068.2020.1744233
- Urevbu, A. O. (1985). Integrating science and technology into a policy of lifelong education in Nigeria. *International Journal of Lifelong Education*, 4

- (4), 319-325. https://doi.org/10.1080/0260137850040404
- Usuanlele, U. (2002). Colonial state and education in Benin division, 1897-1959. In A. Oyebade (Ed.), The transformation of Nigeria: Essays in honor of Toyin Falola. Africa World Press.
- Wang, J. (2024). Development aid 2.0: Technology transfer and skill formation. *Vocation*, *Technology & Education*, 1(1), 7. https://doi.org/10.54844/vte.2024.0545
- Wantchekon, L., Klašnja, M., & Novta, N. (2015). Education and human capital externalities: Evidence from colonial Benin. The Quarterly Journal of Economics, 130(2), 703-757. https://doi.org/10.1093/qje/qjv004
- WorldSkills. (2022, January 7). Reimagining TVET—Ghana's national skills competition. Retrieved April 18, 2025, from https://worldskills.org/media/news/reimagining-tvet-ghanas-national-skills-competition/
- Zancajo, A., & Valiente, O. (2019). TVET policy reforms in Chile 2006-2018: Between human capital and the right to education. *Journal of Vocational Education and Training*, 71(4), 579-599. https://doi.org/10.1080/13636820.2018.1548500
- Zong, C. (2024). The internationalization of China's vocational education: Value implications, practices and planning. *Vocation, Technology & Education, 1*(3), 25. https://doi.org/10.54844/vte.2024.0669
- Zvobgo, C. J. M. (1996). A History of Christian Missions in Zimbabwe, 1890-1939.
 Mambo Press.