

Managing Employability Challenges among Graduates: The Role of Curricula Reforms

ABSTRACT

This study examined how curricula reforms address employability challenges among graduates in Tanzania. A mixed method approach was used and data was collected through questionnaires and interviews from 243 participants. The research found that curricula reforms significantly enhance employability skills of graduates. It also showed that curricula reforms deal with employability challenges by ensuring that education is relevant to the needs of the labour market, respond to 21st century demands and expectations, give relevant skills, and promote global competences. Thus, it was concluded that effective needs assessment is the basis for designing curricula reforms to align educational practices with the real job market requirements. Regular curricula reforms are recommended to ensure relevance and quality, adapting to changing demands and priorities of the nation and the labour market. The study suggests the establishment of a competence framework that ensures consistent alignment of education with relevant employability skills.

Keywords: *Curriculum, Curriculum Reform, Employability, Skills, Job market*

1. INTRODUCTION

Curriculum is the foundation of education, serving as a guideline and roadmap for various levels of education [Bhargava, 2020, URT, 2015] for providing students with knowledge and skills for a better living. However, if curriculum is not reformed for a long time, it lacks flexibility, innovation and relevance to societal needs [OECD, 2020c]. This study aimed to ensure graduates are contemporary and employment-oriented by addressing the challenge of skills mismatches that limit their ability to secure or create jobs, sometimes resulting in low performance. The study is in line with the previous studies which suggested that curricula reforms are important for ensuring that knowledge, skills, and competences of graduates remain relevant and effective [OECD, 2020c, 2020a]. United Kingdom (UK), Finland, Japan and Russia have implemented curricula reforms to enhance basic skills, create a skilled workforce, and enhance students' sustainable living skills in the 21st century. The UK implemented reforms in the 1980s and 1990s to enhance basic skills and create a more skilled and adaptable workforce [Machin & Vignoles, 2006]. In the period between 2014 and 2017, Finland experienced an important reform in its curriculum with the aim of raising students' ability to live sustainably in the 21st century [Lavonen, 2020, Halinen, 2018]. Yamanaka and Suzuki (2020) also note that Japanese reforms on curricular aspects during the period of the 1990s to the early 2000s aimed at introducing students to 21st academic society through developing life skills such as critical thinking, creativity and adaptability referred to as 'zest for life'. Moreover, it was noted by Froumin and Remorenko [2020] that Russia changed from subject-based curriculum towards a competency based one with the major purpose of fitting up modern set of skills among students. The National Education Policy (2020) in India directed reforming all aspects of education, including the curriculum, to equip graduates with 21st century skills (Government of India, 2020).

In the same way, Tanzania has revised its curriculum in many versions including 1967, 1997, 2005 and the current one of 2023 to instil in students, employability skills, enhance competencies and skills related to labour market [Nzima, 2016; Nyerere, 1967; TIE, 2013]. However, Tanzanian curricula reforms haven't had much of an impact on graduates' employability skills at different levels [Athuman, 2018; Opalo, 2020; URT, 2021]. In order to ensure that graduates have the necessary skills for the job market and address graduate unemployment and global economic difficulties, curriculum reform is essential [Demissie *et al.*, 2021; Kamuhabwa, 2019; UNESCO, 2018]. Yorke (2006) also argued that the curriculum process may facilitate the development of prerequisites appropriate to employability. Research shows that curriculum reform is critically needed because of the growing skills gaps between what education and training can provide and what society and job market require [Diaz & Lim, 202]. Therefore, this study aimed at examining how curricula reforms address employability challenges among graduates across different levels of education in Tanzania.

2. LITERATURE REVIEW

2.1. Theoretical Review

The theoretical foundation of this study is based on the model of Multidimensional View of Change. The model was developed in 1976 by Urie Bronfenbrenner, as a curriculum design approach. Later, the model started to serve as a global framework for educational reforms [OECD, 2020c; Mefalopulos, 2018]. According to the model, curriculum reform is a multifaceted practice built on a variety of perspectives [Reimers, 2020]. This model posits that multiplicity of perspectives on curriculum reform provide different ways of addressing employability challenges. The model's weakness is that it only focuses on curriculum reform, leaving uncertainty on how curriculum reform affects employability. However, the model was relevant to this study as it offered insights into how to effectively describe the role of curriculum reform on employability from multidimensional perspectives, as it is recommended in leading educational change practices.

2.2. Empirical Review

Different studies have provided different views in relation to how curricula reforms address employability. Misni *et al.* (2020) found that curriculum design significantly impacted on employability competency in Malaysia ($\beta = 0.337$, $p = 0.000$). The study is relevant to this study as it introduces the elements of curriculum and employability practices relating to this research. It indicates how curriculum processes directly influence the employability skills of graduates. However, the current research study differs from the former study in that the current study focuses on curriculum reform in addressing employability, while the former study focused on curriculum development. Boateng *et al.* (2015) discovered a substantial relationship between adopted curriculum and job responsibilities of graduates at Wisconsin International University College (WIUC), Ghana. Further, the study conducted by Mahmud and Wong (2022) on the relevance of 21st century skills in the current job market from the perspectives of stakeholders revealed 63.3 percent of the participants indicated that the job skills taught in universities were not adequately meeting the demands of the contemporary job market. This indicates the need for educational provision to adapt towards meeting changing job-related requirements and acquire certain skills that improve employability. The systematic review on employability by Artess *et al.* (2017) provides an account of various practices and policies with measurable success regarding employment outcomes done in the period from 2012 to 2016.

Moreover, Campbel (2020) indicated that global science education was experiencing a crisis, necessitating curriculum reform to clearly state its vision and mission to meet needs of students. It is also indicated that employability among students was greatly impacted when

education was tailored to fit the needs of society and the job market [Cheng *et al.*, 2022]. Another study emphasizes that curriculum reform enhances instruction and learning effectiveness, enabling students to develop the necessary skills for the success of job market and enhanced employability [Martin, 2018]. Further, it was indicated that many governments have reformed the education to provide students the chance to acquire the necessary skills for success [Reimers, 2020]. Automatically, curriculum reform is crucial for addressing the new role and goals of education, focusing on equipping students with skills and competences for sustainable living. Redesigning their curricula because of technological changes that demand people to be functional in the 21st century has been a challenge for many nations. Some reports stressed that employability skills should take centre stage as one of the critical agenda items in the 21st century. Quality student learning and teaching demand 21st century skills, not only limited to reading and writing but going beyond literacy and numeracy as essential competencies. Curricula reforms aim at responding to education challenges, notably the lack of relevant skills for the labour market [Machin & Vignoles, 2006]. The study by Drake and Reid (2020) indicates the importance of interdisciplinary curriculum in teaching 21st century competencies for solving complex global problems effectively and relevantly. Incorporating global issues and interdisciplinary skills into the curriculum improves students' knowledge integration and interdisciplinarity, fostering competence in synthesizing and applying knowledge from multiple disciplines [Ashby & Exter, 2019; Liu *et al.*, 2022]. Though the literature reviews assisted in understanding the problem, they also have gaps that justify this study.

2.3. Conceptual Framework

The study employed system thinking to explain the role of curricula reforms in enhancing employability in Tanzania. The framework comprises six essential components as indicated in Figure 1.

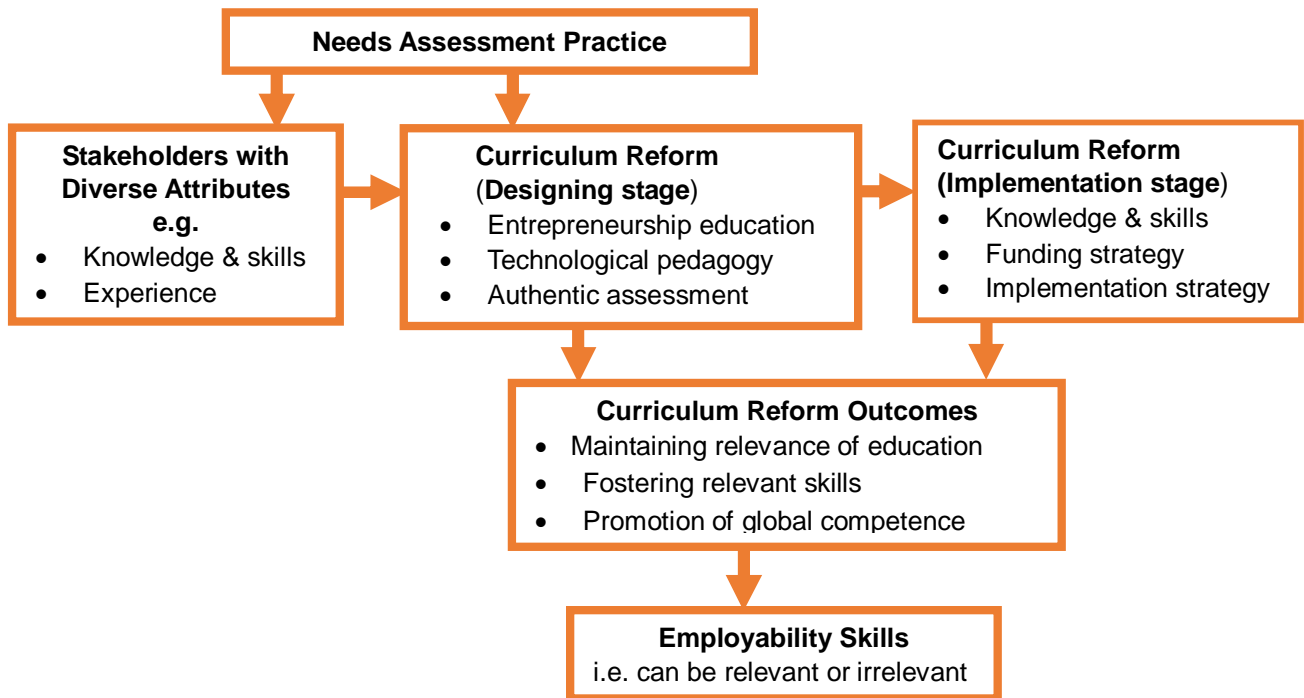


Figure 1: The Process of Curriculum Reform on Employability Skills Development

The conceptual framework, as indicated in Fig. 1, explains how curriculum reform helps in addressing employability challenges, such as skills mismatch and inadequate labour market

performance through a needs assessment process. The needs assessment process identifies areas requiring reform to react to the employability challenges identified. The design process is enhanced by diverse stakeholder inputs, guiding the translation of labour market situations, skill nature and education trends, into effective employability skills development content, objectives, and pedagogy. Also, stakeholders with diverse knowledge and skills ensure that the curriculum has quality, relevance of education and skills, and global competence, crucial for employability skills development, as illustrated in Figure 1. The curriculum reform design process focuses on developing employability skills through quality content, objectives, and instructional and assessment approaches, implementation being crucial for successful curriculum rollout. Generally, the conceptual framework enhances employability skills through needs assessment with diverse stakeholder inputs for enriching the design process and assisting graduates in the labour market.

METHODOLOGY

The study used a mixed-methods approach with a convergent design, involving 243 participants. In collecting data, 231 participants completed questionnaires and 12 participated in interviews. The questionnaire in a 5-Point Likert scale used in the study was self-developed. The developed questionnaire was tested for internal consistency by means of Cronbach's alpha ($\alpha = 0.96$). Research clearance and permits were obtained adhering to ethical considerations and research logistical procedures. The data was analyzed both quantitatively and qualitatively. The Statistical Packages for Social Sciences (SPSS) version 26 was used for quantitative data analysis. Analysis was confined to simple linear regression to examine the statistical effects of curriculum reform in addressing employability challenges. The qualitative data collected through interviews was analyzed thematically and presented as narratives and verbatim. The study was thoroughly examined by comparing and merging both quantitative and qualitative data.

3. RESULTS AND DISCUSSION

3.1. Background Information of Respondents

Table 1 indicates that 55.97% of the participants were male while 44.03% were female, with 90.13% having educational level ranging from bachelor to PhD. The majority of participants (57.25%) acquired knowledge through multiple pathways, indicating a strong understanding of curricula reforms. Moreover, it was revealed that the most significant share of participants, 55.97%, had working experiences above 10 years. The majority of participants (90.13%) possessed higher education qualifications and extensive curriculum experience, enabling them to provide reliable information [see also Chepkemoi & Juma, 2019; Reimers, 2020].

Table 1: Background Information of the Respondents

Variable	Category	Frequency	Percentage
<i>Gender</i>	Male	136	55.97
	Female	107	44.03
	Total	243	100
<i>Educational qualification level</i>	Certificate	13	5.35
	Diploma	11	4.53
	Bachelor' degree	76	31.28
	Masters	118	48.56
	PhD	25	10.29
	Total	243	100
<i>Sources of knowledge and skills of curricula issues</i>	Cert	13	5.35
	Dip	6	2.47
	BA	69	28.40
	P-Dip	1	0.41
	Cert + Dip	5	2.06
	Cert + Dip + BA	14	5.76
	Cert + Dip + BA + MA	2	0.82
	Cert + Dip +BA +MA + PhD	3	1.23
	Cert + BA +MA	5	2.06
	Dip + BA	33	13.58
	Dip + BA + MA	20	8.23
	Dip + BA +MA + PhD	5	2.06
	BA + MA	37	15.23
	BA + MA + PhD	3	1.23
	Post-Dip + MA + PhD	4	1.65
	BA + PhD	2	0.82
	Seminars, workshops and research activities	14	5.76
	Cert.+ BA	7	2.88
	Total	243	100.00
	<i>Working experiences</i>	Under five years	38
5-10 years		69	28.4
11-19 years		80	32.9
20 years and above		56	23.0
Total		243	100.0

Source: Field data (2024)

Note: Cert = Certificate; Dip = Diploma; BA = Bachelor; P-Dip = Postgraduate Diploma; MA = Masters

3.2. How Curricula Reforms Address Employability Challenges

The study examined how curricula reforms address employability challenges among graduates. Simple linear regression analysis was conducted in examining the impact of curricula reforms on addressing employability challenges among graduates. The standard error or margin tolerance of 5% or 0.05 was used in this study as recommended in Cohen *et al.* (2018) as a conventional measure. The results are presented in Table 2.

Table 2: Effects of Curricula Reforms on Employability

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.819 ^a	.671	.669	.55917

a. Predictors: (Constant), Curriculum reform

b. Dependent Variable: Employability skills

Source: Field data (2024)

The coefficient of determination (R^2) shows how the curricula reforms share effects on addressing employability challenges. The coefficient of determination (R^2) for addressing employability challenges was 0.671 indicating that curriculum reform can explain 67.1% (.671) of the variance in addressing employability challenges, meaning that other factors that this study did not cover could explain the other 32.9% variance. The model value was consistent with the suggestion of Cohen (1988) that the substantial model value (R^2) should be at least 0.67. This means curriculum reform has substantial positive effects on addressing employability challenges among graduates and enhancing employability prospects. This implies that curricula reforms are crucial in leveraging graduates' employability in the rapidly changing labour market and society, ensuring the relevance and functionality of their skills and competences.

Table 3: Curriculum Reform in Addressing Employability Challenges

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.485	.168		2.888	.004
Curriculum reform	.875	.042	.819	20.624	.000

a. Dependent Variable: Employability skills

As shown in Table 3, there was a positive ($\beta=0.819$, $p=0.000$) and significant ($p<0.05$) relationship between employability skills development and curriculum reform. This proves that the relationship between employability skills and curriculum reform is statistically strong and not simply by chance. The findings corroborate findings by Misni *et al.* (2020) who found a significant correlation ($\beta = 0.337$, $p = 0.000$) between employability competency and curriculum design. Curriculum reform was found to have large effect-size ($\beta = 0.801$) compared to effect-size of curriculum design ($\beta=0.337$) on employability. This implies that curricula reforms have a significant impact on addressing employability challenges among graduates, showing that curriculum reform is vital for aligning employment needs of graduates making them ready for employability. The findings also align with some researches [e.g., Machin & Vignoles, 2006; Amodu *et al.*, 2023], which indicated that, countries have been implementing curricula reforms at varying rates and using varying approaches in recent years to equip students with skills for a world that is changing rapidly.

The regression results imply that curriculum reform is a functional strategy for managing employability challenges at any point by maintaining relevance of education in terms of relevant skills, 21st century skills, as well as global competences, as has also been evidenced from the previous studies when compared with the findings of the current study.

The qualitative data from interviews on how curricula reforms address employability challenges was analyzed thematically, as shown in Table 4, and presented as narratives and verbatim, providing valuable insights into the quantitative data.

Table 4: Qualitative Data Analysis

Category	Theme	Description
Curriculum reform	Relevance	<ul style="list-style-type: none"> • Guarantees that the knowledge and skills taught in schools are current with trends • Curriculum reform is necessary to ensure that learning objectives and outcomes remain constantly relevant. • Education practices to be aligned with the demands of current needs as guided by the requirements of 21st century skills
	Relevant skills	<ul style="list-style-type: none"> • The national goals and mission for the future are fulfilled through the curricula reforms • The curriculum reform shapes the skills to make them relevant according to the needs of the country and job market requirements
	Global competence	<ul style="list-style-type: none"> • Curriculum reform helps in integrating global perspectives in education to prepare graduates for international markets
Employability skills	Skill gaps	<ul style="list-style-type: none"> • Curricula reforms fill the gaps identified during the needs assessment because gaps are the foundation of all reforms
	Skills mismatch	<ul style="list-style-type: none"> • Curriculum reform ensures matching of skills, hence leveraging employability prospects

Source: Field data (2024)

Data from interviews as outlined in Table 4 revealed that curricula reforms help address employability challenges by maintaining relevance of education in preparing students for employment. Relevant education guarantees quality of education outcomes and hence enhance the quality of knowledge and skills contingent to the needs of the labour market and society at large. One respondent had the following to express:

Curricula reforms guarantee that the knowledge and skills taught in schools are current with trends since they adapt education to changes such as those in technology, which necessitate the development of new pedagogy, knowledge, and skills.

Another respondent had this to say:

Since society and needs are dynamic, curriculum reform is necessary to ensure that learning objectives and outcomes remain constantly relevant. Thus, curriculum reform is required in order to bring significant innovations in education that are pertinent to changing needs of the society.

Curricula reforms enhance the relevance of education to adapt to societal and labour market dynamism, ensuring the quality and relevance of content and instructions. From the findings it can be inferred that, curriculum reform should incorporate the latest and most applicable innovations in education, making it more relevant in adapting to current contexts and making graduates functional in the labour market. In such a way, curriculum reform helps to solve the problem of skills gaps, attributed by the changing needs of the labour market and require new set of skills and competence for effective functionality in the labour market. The findings are supported by previous research indicating that education tailored to society and the job market significantly enhances employability among students [Cheng et al., 2022]. Curriculum reform improves instruction and learning effectiveness, enabling students to develop essential skills for job market's success and increased employability [Martin, 2018]. Curricula reforms can help in tailoring the education to actual needs of the society, students and the labour markets by adjusting the objectives, contents and instructions to integrate employability skills aspects.

Further data indicates that curricula reforms improve education relevance through effective needs assessment practices. The needs assessment practices help to know the labour market conditions, skills nature as well as education trends. In that way, it helps to identify the skill gap, actual labour market needs, discrepancy in education and inform the need of curriculum reform by citing exactly the areas which may be affected by the curriculum reform. One of the respondents stated:

Reforming curriculum makes education relevant in that any reform based on needs assessment determines the necessity for curriculum reform. One of the needs is the skills for functionalities of personnel or graduates, which touch directly on employment. Reform is driven by demands, which means that it affects graduates' employability.

In reality, needs assessments help policymakers and decision-makers identify the actual labour market situations in comparison with the practices of education. With needs assessment, it is possible and easy to come up with kind of knowledge and skill sets for responding to the actual needs and demands in the market. This helps to prepare students for future employment by enhancing their skills and competencies through practical learning. The finding corroborates previous study which revealed that needs assessment is a useful technique for determining the prerequisites as well as the knowledge, skills, and abilities required for the operation of the job market [Tanvir *et al.*, 2019]. An effective needs assessment adapts education to current trends, ensuring relevance by providing evidence based on actual labour market demands. However, if the needs assessment determines the reforms, the curricula reforms should be linked to the needs assessment as well. However, it is unclear why curricula reforms in the country have not contributed to alleviating the skills challenges and leveraging employability skills among graduates. The argument was made that most Tanzanian curricula reforms did not significantly affect employability skills.

The 21st century emphasizes the development of employability skills as a key theme for sustainable living, reflecting the significant changes in work and education around the world. According to the presented data, it is obvious that contexts influence education, hence 21st

century skills requirements affect the nature and type of skills in raising labour market performance. It is curricula reforms that align education provision with these requirements, as stated by a respondent:

The current demands for knowledge and skills are different from those of the past, so if we don't reform the curriculum, we won't be able to meet them. In order to make skills more relevant, we must align practices with the demands of current needs as guided by the requirements of 21st century skills.

The requirements of the 21st century skills have driven a shift in curriculum and educational guidelines, emphasizing the need to adapt to the ever-changing world. This has led to a focus on reshaping curricula to align with 21st century skills to improve labour market performance and sustainability. The finding is consistent with some previous studies [Ye & Xu, 2023] which evidence that curriculum reform in Brazil was done to align education practices with 21st century skills for students to effectively thrive in the labour market. Reimers (2020) indicates that students need to develop skills in the 21st century to lead fulfilling and productive lives as global citizens. Many countries have been required to redesign their curricula as a result of technological developments that require individuals to live and work in 21st century [Voogt & Erstad, 2018]. The study indicates the significance of curriculum reform in preparing graduates with 21st century skills, ensuring that they are prepared to fit the demanding environments.

It is noted that curriculum reform is the strategy used to update the skill sets to meet societal and job needs, making them relevant and adaptable. The finding further indicates that curricula reforms effectively align relevant skills with national goals and aspirations. Students are connected to national goals and aspirations through curricula reforms, ensuring that they contribute to achieving these goals and transforming education into a reality. The respondent explains that the change in national goals and priorities necessitates curricula reforms:

The national goals and mission for the future are fulfilled through the curricula reforms. For instance, America reformed curriculum to meet knowledge and skills required for the lunar mission when she initially intended to send people to the moon.

The Tanzania Development Vision 2025 emphasizes curriculum reform as a crucial skill development strategy that education should be restructured and transformed qualitatively and quantitatively, with a focus on promoting creativity and problem solving in line with national development (URT, 1999). The National Employment Policy (2008) mandates education institutions to regularly adapt their curricula on the dynamic needs of works, ensuring that skills remain relevant and functional. The study reveals the importance of aligning education curricula with national goals and mission to ensure that graduates possess relevant skills for achieving these objectives and enhancing the country's economic development.

Qualitative data clearly revealed that curricula reforms can enhance graduates' exposure of international markets by incorporating global knowledge and interdisciplinary skills, crucial for the dynamic and complex workforce environment of the 21st century. In the 21st century's rapidly changing job market, students must develop a diverse range of skills applicable across various disciplines. The respondent explained that knowledge of global economic development trends becomes increasingly important, as it is vital for their employment that they exhibit global perspectives. The respondent in detail explained:

Knowledge of global economic development trends becomes increasingly important, as it is vital for their employment that they exhibit global perspectives. In so doing,

curricula reforms help integrate global perspectives in education to prepare graduates for international markets

The modern workforce demands global competence and exposure for labour market adaptability and flexibility both nationally and internationally. The finding aligns with previous study that due to global economy and the economic realities of markets; it is critical to integrate global competency into education in preparing students for the twenty- first-century economy (Monthey et al., 2013). The call for integration of global competency in education, acknowledges the role of curriculum reform as the strategy to achieve the stated goal. Also, Schejbal and Irvine (2009) add that global awareness is important because society and the way of doing business today require multicultural skills. With curriculum reform, this skill is effectively integrated in the education system to equip students with global competence to sustainably thrive in the global labour market.

4. CONCLUSION AND RECOMMENDATION

The study has found that curriculum reform significantly enhances graduates' employability skills. This effect is achieved by maintaining the relevance of education, aligning educational practices to 21st century demands, which guide job requirements and educational operations, promoting relevant skills, and fostering global awareness. Curriculum reform is crucial for incorporating practical skills into educational programmes, based on an effective and functional needs assessment. The study recommends that the agency responsible for the curriculum of basic education and other training institutions like universities should regularly implement curricula reforms to ensure relevance and quality in meeting the nation's evolving priorities and labour market needs. The competence framework should be established to ensure consistent alignment of education with relevant employability skills. Also, stakeholders like the government, training institutions, policymakers, and educational institutions should conduct thorough needs assessments to understand job market demands, inform curriculum development, and determine necessary skills for market functionality.

5. IMPLICATION OF THE STUDY FINDINGS

The results highlight the importance of regularly assessing the needs, relevance, and fit of knowledge, skills, and competences to ensure they remain relevant to market demands, thus helping policymakers develop skill-based curricula and policies. The results inform how curriculum reform is a strategy for enhancing graduates' employability prospects by ensuring the relevance and fit of knowledge, skills and competences for sustainable functioning in the labour market.

Ethical Approval:

As per international standards or university standards written ethical approval has been collected and preserved by the author(s).

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