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Enhancing Graduate Teacher Employability on the Complex and Volatile Labour Markets

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Abstract: *The levels of unemployment amongst the graduate teachers on the labour market have been increasing at an alarming rate. Every year, huge numbers of new graduates from institutions of higher learning are being offloaded on the market. Several institutions of higher learning however, have recorded sudden declines on the avarege numbers of enrollments per year. If the trends continue on the same trajectory, the future of teaching as a profesión will continue to remain clouded with high levels of uncertaininty. Several critical questions therefore have been posed as to whether graduate teacher education is still relevant to society today. As the labour market evolves, the graduate teacher education on the other hand has relatively remained static for many years. There is a close relationship between education and employability. Normally, education enhances employability. It has therefore become an urgent matter within the public domain to look for solutions to address this complex problem. This article therefore aimed at exploring how graduate teachers employability may be enhanced on the labour market. The researcher employed an embedded mixed methods research design which was grounded in pragmatism. Data was collected using both purposive and simple random sampling techniques. The quantitative data was analysed using inferrential and descriptive statistics while content thematic análysis was used to analyse qualitative data. The results indicated that there was need to consider graduate upskilling and reskilling for enhanced graduate teacher employability on the labour market. It was recommended further that the government could actively lead in the process of graduate teacher education and transformational processes through specific policy direction, robust curriculum reviews and continuos quality improvement.*

Keywords: education, supply, demand, employability, transformacional education and labour markets, graduate teacher, higher education.

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INTRODUCTION

Since its Independence, Zambia has witnessed significant growth in the education sector (MOE 2023, World Bank 2023). The government of the republic of Zambia has made several reforms in educational policies with a view to improving quality, equity and accessibility that have substantially benefitted the marginalised and less priviledged citizens including women and girls living in the rural áreas (UNESCO 2023, GRZ 2021). Further, several strategies were also implemented that were meant to improve the overally investmenmts in higher education (ZDA 2018, MOE 2022, African Banking 2018). For instance, several learning institutions were upgraded to become public universities while many technical and vocacional training institutions saw the unprecedented increase in funding for the purposes of Skill development and human capital investments (Mulenga & Mumba 2020). Despite all efforts being made to improve higher education system, graduate employability has remained a huge problem in Zambia. Many graduates teachers from higher institutions of learning have continued to remain jobless (Mumba & Phiri 2019). This poses a huge concern to the nation in relations to the future of the majority youths who are expected to contribute positively to the National developmental agenda as indicated in the Zambia's 7th National Development Plan (GRZ 2023, ILO 2022, UNESCO 2021). Additionally, new questions are being posed now. How does Zambia meet its obligations to actualise the United Nations Sustainable Development Goal (SDG) Number 8 which demand for creation of decent jobs, livehood and sustainable incomes through skills development and entrepreneurship?

Graduate teacher employability in Zambia is substantially influenced by múltiple factors such as government recruitment policies, budgetary constraints, and the labour demand for educational professionals (Mulenga & Mwanza 2020; WEF 2022, UNESCO 2023). The Teaching Commission is responsible for hiring teachers in the public sector while the private sector also offers employment opportunities on need basis (TSC 2022. Bessen et al 2019). However, despite government efforts to recruit teachers, graduate teacher unemployment has continued to remain a big challenge to society. This is partly due to cumulative increase in the numbers of graduates from institutions of higher learning. In a bid to address the high levels of unemployability in Zambia, the government of the republic of Zambia, in 2022, reruited over 30,000 teachers that benefitted both the urban and the rural áreas (MOE 2023). The mass recruitment however, did not adquately resolve the problem of graduate unemployability as the country still needed in excess of over 80,000 more teachers in order to address the existing wide gaps of teacher-to- pupil ratios, as well as the critical shortages of specific classroom subject teachers (UNESCO 2023; World Bank 2023; TSC 2022).

Generally, it has been observed that, though having relevant qualifications, it is increasisngly becoming more and more difficult to find employment for graduate teachers on the labour market (WEF 2020). This scenario has created an extra panic amongst the government authorities worldwide as the majority of those being directly affected include the youths who are the future of

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every nation. The levels of unemployment amongst the graduate teachers have already overwhelmed the labour markets. High levels of unemployability has now created an emergiency crisis that require an urgent attention (OECD 2020; MOE 2021). The same question has been posed over and over again. What should be done to enhance gradauate teacher employability on the labour markets? Predominantly, one arguement has been espoused that part of the solution to this problema lies with the nature of the graduate teacher education programs. However, a different viewpoint has also emerged suggesting a forest of integrated interventions that must be undertaken in order to address this 21st century crisis (Cross 2017; Becker et al 2019; Zhou 2022). It is therefore the primary purposes of this article to discuss effective measures of enhancing graduate teacher employability on the labour markets in a much holistic and sustanable mananer.

Graduate employability refers to a graduates ability to secure employment and perform effectively in a professional setting (Bridgstock 2009). Numerous factors contribute to employability, including the skills acquired during education, the quality of education, and the alignment between graduates' skills and labor market needs (Coll et al 2009; Lasselle et al 2019; Bailey 2009). At the centre of this inter-relationship comes labour demand and supply. The intensity of the associations, relationship and correlation between labour supply and demand eventually determine the graduate teachers employability on the labour market (Freeman et al 2020).

Selected Studies on Graduate Employability

A study by McGuinness (2018) empirically analyzed labor supply and demand imbalances in the European labor market, focusing on graduate employability. The study found that in many European countries, there is a persistent mismatch between the supply of graduates in certain fields (e.g., humanities and social sciences) and the demand for workers in other fields (e.g., STEM disciplines). This mismatch has resulted into higher unemployment and underemployment rates among graduates from oversupplied fields, while industries facing labor shortages (e.g., technology, healthcare) struggle to fill vacancies. McGuinness's research demonstrates the importance of aligning educational programs with market demand to enhance employability. To address issues of mismatches between labor supply and demand, several studies have highlighted the role of demand-driven education. This approach emphasizes aligning higher education curricula with labor market needs to produce graduates with relevant skills.

Another significant milestone shows the works of Acemoglu and Restrepo (2020) who studied the impact of robots on employment and wages in the U.S. labor market. At the centre of their study, they found that the adoption of industrial robots significantly reduced employment and wages in industries with a high degree of automation but also noted the potential for new job creation in other areas if workers could transition to different roles. That study significantly highlighted the compelling nature of technology on employability. The study to a large extent helped to document that one of the results of technology is the reduction of employability in terms of numbers for instance and the demand for human skills. As technology advances, there is a high likelihood of

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common instances leading to sharp reduction of demand for human skills. In the university set up for example one can hire one lecturer to handle hundreds of students through massive usage of online classes. what this means is that the demand for human skills is slowing declining due to technological adavancements. We can however observe that such a study did not also appreciate that with coming of technology, new opportunities for employment in certain fields would open up such as specialties in ICT skills, repair and maintenance of the equipment, creation of content, editing and digital marketing.

Many studies on employability have shown a high tendance to atribute unemployment challenges to skills set issues. However, the study that Freeman et al. (2020) carried out on the impact of employer engagement in curriculum design on graduate employability in the UK labor market fuelled more contructive debates. The study focus was particularly on the value of curriculum in employment creation. The results of the study showed that when employers are involved in designing educational programs, the skills and competencies acquired by students are more likely to meet labor market demand. This engagement results in graduates who are better prepared for the job market, leading to higher employability rates. Furthermore, that study emphasizes the need for collaboration between higher education institutions and employers to bridge the gap between labor supply and demand. However, the study on the other hand, could not track consisitently the changing trends on the labour markets of education.

Jackson (2016) conducted an empirical study to examine the impact of transferable skills on graduate employability in the Australian labor market. The study found that graduates who possessed a mix of technical and soft skills, such as communication and teamwork, had a higher likelihood of securing employment. This suggests that the supply of graduates with these skills meets the demand for versatile workers who can adapt to various professional environments. This aligns with previous studies by Tomlinson (2017), who emphasized that employers seek graduates with a combinación of academic knowledge and soft skills to thrive in a dynamic work environment. In an era of rapid technological change and globalized economies, labor markets are becoming more dynamic and uncertain. To address this volatility, several studies have highlighted the importance of labor market flexibility and lifelong learning.

An empirical study by Wilson (2019) examined the role of government policy in shaping labor supply and demand in the US labor market. The study found that policies promoting STEM education, apprenticeships, and skills development programs significantly improved graduate employability in high-demand sectors. Additionally, wage subsidies for employers who hire recent graduates were found to increase employment rates among new graduates, especially in industries experiencing labor shortages. These findings demonstrate the importance of policy interventions in balancing labor supply and demand to enhance employability.

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METHODOLOGY

This article used quantitative research methodology while utilizing both descriptive and inferential statistics. Quantitative research is justified by its ability to provide precise, objective, and generalizable findings through systematic data collection and analysis. Quantitative studies rely on numerical data, reducing bias and subjectivity in research (Cresswell & Poth 2017; Schoonenboom & Johnson 2017). This objectivity is achieved through standardized procedures, such as structured surveys, experiments, and statistical analyses (Creswell & Creswell (2018) Quantitative methods minimize researcher bias by focusing on observable and measurable phenomena. Statistical tools like regression analysis and hypothesis testing ensure accurate, data-driven conclusions (Cresswell & plano Clark 2011). Simple random sampling techniques were used to collect data that was analysed using SPSS software packed. Both descriptive and inferential, statistics were used to process, interpret and present the study findings.

Conceptual Framework

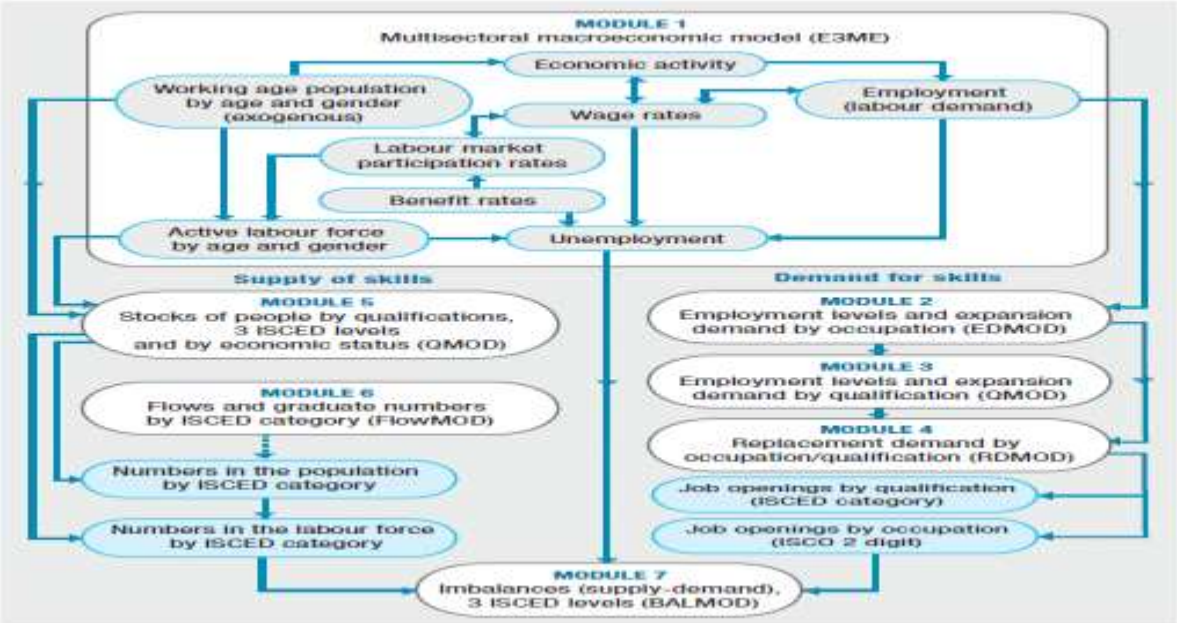

Figure 4.1 : Conceptual Framework on Labour Supply & Demand Dynamics

As conceptualizad from the above figure, it can be understood that labour supply and demand are directly known as step by step process linking to employability on the broader labour markets scale. Labour supply and demand are the two predominant forces that wield influence to predict dynamics of both supply and demand leading to employability. The relationship amongst these variables begins with education and training in form of human capital skills. When the skills are

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needed in line with industrial need, it cerates a demand and that leads to employability. However, if there is skills mismatch whereby the skills being desired are different from those available, it tends to lead to unemployment as well as over supply of the skills not in line with labour markets needs. There is always need to strike a balance between labour demand and supply. Once there is a fair balance between supply and demand, it may lead to an equilibrium, a status that suggests that supply and demand are equal. In order to enhance employability, there is need always to create high demand for labour. When there is high demand for labour, it often leads to enhanced employability, increased wages and levels of income thereby stabilisation of the economic standards of living. When more citizens have decent jobs and work, they tend to have more access to decent standards of living through easier access to shelter, food, clothings, health and leisure.

Theoretical Framework

A theory of transformation incorporates and integrates multiple theories of change operating at many levels that are knitted together and explaining how major systems of transformation occur. They catalyse, connect, track, map, and evaluate networks and initiatives to generate critical mass tipping points toward transformation expected to be transitioning in order to meet the demand of society in a continuous manner. Times have changed when the society could remain generally uniform over the many years (Kania 2019). Policymakers, planners, management and regulatory authorities must engage institutions of higher learning based on the necessity to produce a highly relevant higher education system that produces relevant graduates who can add value to society.

The process is continuous, dynamic and proactive. The environmental scanning must be done regularly and the correct reading of the environmental dynamics so as to realign the graduate training and education in accordance with the specific societal demands.

FINDINGS

This section presents the finding from the research that was undertaken and the results are clearly given in table 6.1 below.

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Table 6.1: Presentations of Findings on how Graduate Teacher Education can be Enhanced for Employability.

How can graduate teacher education be enhanced for improved employability on the Labour Markets?					
Descriptive Statistics					
Sno.		N	Mean	Std. Deviation	Remarks
1.	There is need to Link GTE Education to multiple specializations	679	4.13	1.208	Agreed
2.	There is need to improve the quality and standards for GTE	679	3.57	1.274	Agreed
3.	Govt needs to regulate more closely all Higer education Institutions	679	3.83	1.364	Agreed
4.	GTE needs to mentor graduates to become employers	679	4.52	1.159	Agreed
5.	Govt. needs to regulate enrollments & outputs in Higher institutions of learning	679	4.170	1.325	Agreed
6.	We must stop producing graduate teachers for now.	679	2.01	1.670	Did not agree
7.	GTE must be enhanced with more course contents rich in Practice	679	3.20	1.175	Neutral
8.	GTE needs impart more skills in innovation, research & creativity	679	2.90	1.168	Neutral
9.	GTE needs to impart more comprehensive skills in entrepreneurship?	679	4.57	1.188	Agreed
10.	There is need for upskilling & reskilling for graduates.	679	4.42	1.105	Agreed
11.	There is need to introduce more foreign language skills.	679	4.69	1.971	Agreed
	Average Mean Score	**679**	**2.47**	**1.327**	

Table 6.1 above explored the perception of graduate teachers concerning what could be done to enhance graduate teachers' education for employability on the labor markets. It was perceived that there was need to introduce more of the international foreign language skills, comprehensive entrepreneurial skills, upskilling and reskilling of teachers while at the same time paying more attentions to the strict regulations of higher learning institutions. There is need to improve on the standards and quality of the graduate teacher education while at the same developing a transformative graduate education system that would lay more emphasis on mentoring teachers more into becoming employers rather than being employees. Skills mismatch may be addressed by linking specific graduate teachers' specializations to specific local needs requirement in the consistent and continuous manner.

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Findings on Enhancing Graduate Teacher Education for Employability on the Labour markets.

A regression Analysis Test was conducted amongst the graduate teachers to establish measures that could be taken to enhance the graduate teacher education for employability on the labor markets. The table bow showed the results obtained.

Table 6.2: ANOVA Testing on Measure to Enhance Graduate Teachers Employability

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Introduce foreign Language Skills to empower teachers for international competitiveness	Between Groups	53.942	1	53.942	14.157	0.000
introduce Intensive, comprehensive and localized practical entrepreneurial skills	Between Groups	5.529	1	5.529	3.956	0.048
Prioritize Upskilling & reskilling of graduate teachers for enhance employability	Between Groups	4.125	1	4.125	3.891	0.0490
introduce robust skills in Innovation, research & Creativity		1.494	1	1.494	2.856	0.0915p
Build a viable curriculum centered on industrial practice	Between Groups	0.557	1	0.557	3.24	0.0723
stop producing graduate teachers for now in order to create a balance labor supply and demand	Between Groups	2.072	1	2.072	0.742	0.389
regulate net numbers enrollments in all higher learning institutions in order to control labor supply & demand	Between Groups	1.506	1	1.506	7.052	0.0081
Develop viable mentorship programs to build employer orientation acumens, & competencies amongst graduates as opposed to employee orientations	Between Groups	0.983	1	0.983	4.731	0.0300

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introduce strict measures to regulate HEI on infrastructures, curriculum & quality	Between Groups	1.510	1	1.510	2.811	0.0941
Improve quality assurance standards, systems, protocols & processes to enhance production of quality graduates	Between Groups	2.673	1	2.673	2.505	0.1140
Develop strong Linkages that network local skills needs and specific specialization	Between Groups	0.163	1	0.163	6.125	0.0129

From table 6.2 above, shows that graduate teacher education can be enhanced through strategic addition of foreign internation languages and culture-(P-Value=0.00) to the curriculum. Additionally, the introduction of comprehensive practical entrepreneurship skills-(P-Value=0.048), upskilling and reskilling-(P-Value=0.0490), teacher mentorship in employer orientations-(P-Value=0.0300), quality improvement-(P-Value=0.0192) as well as linking quality and specializations to the local labour needs-(P-Value=0.0129). Additionally, regulations of the Higher learning institutions on quality(P-Value=0.0055), and the need to solicit mentorship for employer orientations recorded a P-Values=0.0300. These highlighted variables were statistically significant at the confidence levels of 0.05. we can enhance graduate teacher education through a combination of the number of approaches as indicated from the above presentations of the statistical tests.

DISCUSSION

Transformative graduate teacher education aims to equip teachers with not only the skills to deliver content but also the ability to critically engage with the educational system, foster inclusive learning environments, and adapt to the changing needs of society. This approach is posited to enhance employability more effectively than the traditional teacher education programs. Transformative education emphasizes critical thinking and reflective practices, which prepare graduates to be adaptive and innovative in their teaching methods. This contrasts with traditional education, which often focuses more on routine learning and standardized methods. Critical thinking skills are highly valued by employers as they enable teachers to address diverse classroom challenges creatively and effectively. This finding is in agreement with so many other studies that have already been carried out by other researchers (Mezirow, 1997; Zhou 2022; Zeleza 2021). The qualitative findings highlighted many things. The traditional graduate teacher's education though not outdated was strongly recommended to undergo some systematic and complete restructuring, improvement and realignment.

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The labor market increasingly demands graduates with versatile skill sets that go beyond technical expertise. Entrepreneurship skills, research and innovation capabilities, and foreign language proficiency collectively empower graduates to adapt, excel, and contribute meaningfully in a competitive global economy. Entrepreneurship involves the art and the ability to identify opportunities, develop business ideas, and implement them effectively. Graduates with entrepreneurial skills are equipped to start their ventures, creating employment opportunities for themselves and others. These skills foster resilience, creativity, and problem-solving abilities, which are highly valued across all industries. Further, graduates can apply entrepreneurial mindsets within organizations by driving innovation and process improvements. Generally, Employers value candidates who demonstrate initiative, risk-taking, and the ability to deliver results in dynamic environments. Research skills, innovations and creativity are critically needed in the modern job market environment. The ability to analyze data, think critically, and develop solutions through creativity and evidence-based approaches creates a difference amongst the job prospects on the labour markets. Graduates wish such rare skills significantly become more marketable than any other ordinary ones. Research skills enable graduates to address real-world challenges, a capability that is highly sought after in sectors like healthcare, technology, and education. Creativity in developing new products, processes, or services adds value to businesses, driving competitiveness and growth the levels of excellence. As economies shift toward knowledge-based industries, graduates with strong research skills are in higher demand for roles in R&D, analytics, and policy-making. Graduates skilled in research can seamlessly transition between academia and industry, providing unique perspectives and solutions. Proficiency in one or more foreign languages for effective communication in multicultural and international contexts.

Language skills open up job prospects in multinational corporations, international trade, and diplomatic roles. Understanding diverse cultures fosters better collaboration and reduces barriers in global business environments. Language proficiency enhances client relationships in industries such as tourism, customer service, and international sales. Being multilingual often sets candidates apart in the recruitment process, especially in sectors requiring cross-border interaction. The integration of entrepreneurship, research and innovation, and foreign language skills equips graduates with the tools to thrive in a dynamic labor market. They can create their own opportunities, excel in multinational environments, and contribute to organizational growth and innovation. By fostering these skills, educational institutions and policymakers can ensure graduates are not just employable but also indispensable in the global workforce.

Graduate employability is shaped by a multifaceted educational ecosystem. A well-designed curriculum, robust infrastructure, stringent quality assurance, effective regulation, and targeted skills development aligned with specialized market demand collectively create an environment where graduates are better equipped to meet labor market needs. A curriculum designed to match industry trends ensures graduates are job-ready. For example, incorporating emerging fields like

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artificial intelligence, renewable energy, or digital marketing prepares students for high-demand sectors. Integrating internships, capstone projects, and case studies bridges the gap between theoretical knowledge and practical application. Embedding soft skills, critical thinking, and technical expertise into the curriculum ensures holistic development. Modern labs, libraries, and digital resources enable hands-on learning and innovative research, critical for technical and specialized roles. Smart classrooms, virtual labs, and access to advanced tools prepare students for tech-driven industries. Infrastructure supporting collaborative spaces for industry-academic partnerships facilitates real-world exposure and networking opportunities. Ensures academic programs meet national and international benchmarks, building employer trust in the competence of graduates. Regular assessments and feedback loops improve course content, teaching methods, and institutional performance. Transparent evaluation mechanisms encourage institutions to maintain high standards in pedagogy and graduate outcomes. Regulations ensure institutions deliver accredited programs and discourage the operation of unregulated entities that compromise educational quality. Institutions that align skill development with market demand tend to produce graduates with niche expertise, such as cybersecurity, biotech, or sustainable architecture. Training in high-demand, evolving fields ensures graduates remain employable in a rapidly changing job market. Partnerships with industries allow real-time updates to training programs based on emerging job roles and technologies. Policy-driven alignment between academic offerings and economic needs ensures a workforce tailored to the country's growth priorities. Regulations ensure access to quality education across socio-economic groups, fostering a diverse and skilled workforce. Institutions that align skill development with market demand produce graduates with niche expertise, such as cybersecurity, biotech, or sustainable architecture. Training in high-demand, evolving fields ensures graduates remain employable in a rapidly changing job market. Partnerships with industries allow real-time updates to training programs based on emerging job roles and technologies

CONCLUSION

The primary aim of the study was to explore the existing linkages amongst labour supply, demand, employability and graduate education. By focusing on graduate education, the study explored the strategic measures that could be implored to improve graduate education thereby creating demand for the labour force while regulating supply for the same labour. It was established that graduate teacher employability can be enhanced through the improvement of the graduate teacher educations in transformative manner. This included the introduction of the multiple foreign language skills, mainstreaming of entrepreneurship skills, and expansion of the curriculum in order to make it more linked to the local labour needs. When there are skills in innovations, creativity and research, graduate quality would increase and that would create demand for increased employability. It was further found that graduate teachers lack additional employability skills and the levels of the skills mismatch was so high. In view of this conceptualization, it was highly

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recommended that the current graduate teacher education be improved through a total transformational process where all the skills and the required competencies be integrated into ethe the curriculum for enhanced graduate teacher employability.

Recommendations

In this article it was recommended that:

- There is need to link the teacher skills with current local labour needs.
- Transformative graduate teacher education is required to replace the current traditional teacher education program.
- Relevant mentorship training are needed to inculcate employer values in all teacher graduates.
- There is need to do robust upskilling and reskilling especially in soft skills such as networking, problem solving and critical thinking.

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