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Exploring Higher Education Demand and Opportunities for Young Refugees in Africa

*Late A. Lawson, Pauline Essah, Krista C. Samson and
Michaelene Welsh-Kinnersley*

Abstract

Higher education for young people, including marginalised groups, is essential for equitable and sustainable development. There is limited research on refugees' access to higher education, especially in developing countries. This article contributes to the literature on refugee education by raising awareness of the demand for education and issues surrounding refugees' access to higher education in West and Central Africa (WCA). We consider changes in the population of young refugees as a proxy for shifts in their demand for education and map available opportunities and challenges. Our analysis of refugee youth demographic data indicates increasing trends in most WCA countries, signalling rapidly growing demand for (higher) education by refugees in their countries of asylum. Mapping these countries' provision of refugee education opportunities and dedicated scholarship programmes for refugees, as well as interviews with refugee students promotes understanding of the conditions and challenges they confront in the transition to higher education in their host countries. The article highlights the urgency of the refugee situation in Africa and calls for immediate and practical action to facilitate and support refugees' access to tertiary education.

Key words: higher education, refugee education, SDGs, inclusive development, Africa

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Sommaire

L'enseignement supérieur pour les jeunes, y compris les groupes marginalisés, est essentiel pour un développement équitable et durable. Il existe peu de recherches sur l'accès des réfugiés à l'enseignement supérieur, en particulier dans les pays en développement. Cet article contribue à la littérature sur l'éducation des réfugiés en sensibilisant à la demande d'éducation et aux questions entourant leur accès à l'enseignement supérieur en Afrique de l'Ouest et du Centre (AOC). Nous considérons l'évolution de la population des jeunes réfugiés comme un indicateur de l'évolution de leur demande d'éducation et nous dressons la carte des opportunités et des défis qui se présentent à eux. Notre analyse des données démographiques des jeunes réfugiés indique des tendances à la hausse dans la plupart des pays d'Afrique de l'Ouest et du Centre, signe d'une augmentation rapide de la demande d'éducation (supérieure) dans leurs pays d'asile. La cartographie des opportunités d'éducation et des programmes de bourses pour les réfugiés dans ces pays, ainsi que les entretiens avec les étudiants réfugiés, permettent de mieux comprendre les conditions et les défis auxquels ils sont confrontés lors de la transition vers l'enseignement supérieur dans leur pays d'accueil. L'article souligne l'urgence de la situation des réfugiés en Afrique et appelle à une action immédiate et pratique pour faciliter et soutenir l'accès des réfugiés à l'enseignement supérieur.

Mots clés: enseignement supérieur, éducation des réfugiés, ODD, développement inclusif, Afrique

Introduction

“Higher Education is instrumental in fostering growth, reducing poverty and boosting shared prosperity. It benefits not just the individual, but the entire educational system.” The World Bank (2021)

Sustainable Development Goal 4 (SDG-4) aims to ensure inclusive and equitable quality education for all by 2030. Additional inclusive measures are required to achieve this goal among marginalised groups such as refugees, especially in developing countries. The United Nations High Commissioner for Refugees (UNHCR) Global Education

Strategy, Refugee Education 2030 (UNHCR, 2019) defines refugees as “People fleeing conflict, persecution and human rights abuses who have crossed a border into another country” (UNHCR, 2023). While the global refugee gross enrolment rate at primary and secondary school level stood at 68% and 34%, respectively, in 2020, a rate of only 5% was recorded at post-secondary level (UNHCR, 2021). The situation in WCA is of even more concern, with 59%, 15% and 1.2% gross enrolment rates in primary, secondary and tertiary education, respectively (UNHCR, 2021a). For SDG-4 to be achieved, policymakers and humanitarian and development organisations will need strong evidence on the dynamics of refugee populations, as well as data on local legal frameworks and refugee education pathways. Surprisingly, the academic literature on refugee education is very limited, especially in relation to higher education (HE) in sub-Saharan Africa. This article aims to fill this gap by: i. providing insight into the dynamics of refugee youth population data, considered as a proxy for their demand for tertiary education; ii. discussing HE opportunities for refugees; and iii. highlighting the current challenges preventing refugees in WCA from accessing HE and how best to support them.

The article is grounded in a number of key philosophical assumptions. From a human rights perspective, refugee education is an inherent right, as emphasised by SDG-4 and the UNHCR's Global Education Strategy, Refugee Education 2030. Our theoretical framework incorporates contemporary concepts like acculturation and transculturalism (Berry et al., 2006; Hope, 2011; Habtemariam et al., 2023) that highlight the need to integrate refugees into the educational and economic fabric of their host countries. Acculturation theories consider the dynamic interplay between refugees and the host culture, acknowledging their mutual influence in the educational process, while transculturalism advocates for the blending of diverse cultural elements in educational environments in alignment with the multicultural nature of refugee communities. In so doing, we aim to assess refugee youth population dynamics and explore the legal frameworks, scholarship opportunities, and the barriers that shape access to HE. Furthermore, our study aligns with the view that HE for refugees serves not just as an academic pursuit, but as a catalyst for inclusive development, social mobility, and the cultivation of human capital for both refugees and their

host countries. The underlying philosophy thus emphasises education's transformative potential as a key driver of societal integration, stability, and peace-building.

The study drew on recent demographic data on refugees in the WCA region from the UNHCR's Refugee Population Statistics Database (RPSD, 2021). We mainly focus on populations of young refugees (12 to 17 years old) by country of asylum for the period 2001 to 2020. Analysing refugee youth population data not only informs policymakers about the seriousness of the refugee situation in WCA countries; it also reflects current and future demand for secondary and tertiary education among refugees.¹ In addition to trends and conditional distribution analyses of the refugee population data, we map local laws surrounding refugee access to HE, scholarship opportunities, and the challenges surrounding such access in WCA countries.

Education is a human right that refugees are increasingly able to access (Dryden-Peterson, 2016). Higher education has proven to be a gateway for inclusive development and social mobility and can be regarded as a tool to promote access to secure, decent jobs in host countries. For host countries, it is a sound investment in (refugees') human capital. Researchers such as Ma et al. (2016); Koehler and Schneider (2019) and Kirk and Sherab (2016), among others, note that HE overcomes the social exclusion and abuse refugees might otherwise experience. Fazel et al. (2012) argue that quality education could help young refugees and asylum seekers to satisfy some of their social and emotional needs. Moreover, by providing individuals with skills, higher-skilled roles and access to well-connected social networks (integration), refugee HE is a social investment that can be used to promote peace-building and stability upon their return to their country of origin (Coffie, 2014; Milton and Barakat, 2016; Ferede, 2018).

The academic literature on the issues surrounding refugee access to HE in Europe, Australia and the United States notes that individual characteristics as well as contextual elements affect refugees' transition to HE in their host countries (Delgado, 2012; De Haene et al., 2018; Unangst, 2019; Molla, 2021a). Among other things, these studies identify the lack of institutional support (Molla, 2021a), racial bias, discrimination and inequality (Halse, 2017; Kubota, 2020), early disadvantages and experiences of trauma and isolation (Molla, 2020,

2021b) as factors affecting refugees' access to HE in the host countries.

In the WCA context, Sule et al. (2020) and Kyereko (2020) argue that young refugees face difficulties in exercising their right to education. The literature mentions several reasons for this situation, including refugees being required to present valid documents proving their age, educational background or schooling history and place of residence (Sule et al., 2020; Kyereko, 2020). Bruni et al. (2017) add that economic hardship, a lack of information and language barriers keep university-ready refugees out of school. Crush and Tawodzera (2011) and Kyereko (2020) note that some African countries do not facilitate refugees' access to their national education systems due to the ambiguity of their education policies. In conclusion, due to the lack of explicit legal provisions for refugees and migrants, the educational policies of most African countries do not facilitate their transition to HE systems (Crush and Tawodzera, 2011; Kyereko, 2020) that are themselves often underdeveloped and overburdened (Lowe, 2019).

There is relatively limited academic research on refugee-related issues in WCA, and even less regarding HE demand and opportunities for refugees. Against this background, this article assesses refugee youth population data, and maps and discusses HE opportunities/challenges for refugees in WCA to raise awareness of refugees' demand for HE and the issues surrounding their access to HE. In doing so, we address the following research questions: i. How have populations of young refugees evolved over the past two decades in WCA? ii. What are the legal provisions surrounding refugee access to HE in WCA countries? iii. What refugee-specific scholarships are available in the region? iv. What are the main challenges faced by refugees in accessing HE?

The remainder of this article is organised as follows: Section 2 presents the data and methodological approach. Section 3 presents the analysis of UNHCR data on refugee youth populations in WCA, while Section 4 summarises the findings from mapping refugee education opportunities and challenges in WCA. Section 5 discusses the results and draws conclusions.

Data and Methodology

Data

This article aims to raise awareness of the rapidly growing refugee population in Africa and the resulting potential demand for education. To do so, we consider UNHCR data on the demographics of refugees by asylum countries over the period 2001 to 2020 in WCA. The data encompasses forcibly displaced populations, stateless people and others of concern to UNHCR, but does not differentiate between economic and political refugees, among other categories.

The UNHCR Regional Bureau for West & Central Africa covers 21 countries, including Benin, Burkina Faso, Central African Republic, Chad, Cameroon, Gabon, Gambia, Ghana, Guinea-Bissau, Guinea, Côte d’Ivoire, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. While Cape Verde, Equatorial Guinea and Sao Tomé and Príncipe are also included, the UNHCR database reports no refugee population data for these countries.

Table 1: Young refugee population in the WCA region

Statistic	Number of Countries	Mean	St. dev.	Min	Max
Year: 2020					
Population of 12-17 year olds	18	11 368.33	22 406.24	46	73 299
Total population	18	75 190.61	149 492.70	342	478 649

Notes: Data from UNHCR Refugee Population Statistics Database for the 18 countries listed above.

Table 1 presents descriptive statistics of the total population of young refugees in the 18 countries under consideration. The standard deviations point to extensive heterogeneity in the number of refugees in the different countries. The data shows that while Sierra Leone and Gabon hosted only 46 and 53 young refugees (aged 12 to 17), respectively, in 2020, the figures for Cameroon and Chad were 64 770 and 73 299, respectively. Table 1 also reports data on the total refugee population in WCA with similar characteristics in terms of heterogeneity.

Methodology: Demand and provision for refugee HE

A mixed method approach was employed to explore the data on refugee youth populations in WCA countries and their HE opportunities as well

as challenges in accessing quality HE. In addition to a review of the existing literature on refugee HE and its importance for sustainable development and refugee self-reliance, we conducted trend, distribution and convergence analyses. We also mapped refugee education opportunities as well as the challenges they face in accessing HE.

Trend and Convergence Analysis (Demand)

Trend analysis: To understand the urgency of the refugee crisis in WCA and the demand for HE, we initially plot UNHCR data on the refugee youth population by asylum country. This depicts the evolution of young refugee populations in each country over the period considered. This trend analysis is by definition a descriptive analysis. Therefore, although very informative, it is by no means appropriate to assess group dynamics and the presence of a convergence process. For this purpose, authors such as Johnson (2000) and Islam (1995) propose a conditional distribution and convergence analysis.

Distribution and convergence analysis: Besides the trend analysis, we use conditional distribution and convergence analyses in panel data framework to reach conclusions relating to the presence of a convergence process among the sample of countries considered. A convergence process is also known in the (economic) literature as a ‘catch-up’ process in which countries from the bottom of the sample and thus with relatively small young refugee populations, grow faster and tend to catch-up with the top-tier countries (see e.g., Sala-i-Martin, 1996; Quah, 1997). The latter instruments complement the trend analysis and are deemed appropriate to understand the group dynamics when assessing the refugee population data in WCA.

Mapping Refugee Education Opportunities And Challenges (Provision)

The assessment of the landscape of refugee education opportunities aims to provide a clear picture of country-specific provisions for refugee access to tertiary education, including Technical and Vocational Education and Training (TVET). To strengthen our background knowledge of the context and stakeholders of refugee education, we initially conducted three in-depth interviews with refugee students in Ghana in 2021. Lastly, we systematically reviewed country-level data related to refugee protection

law, pathways to HE and TVET for refugees (in asylum countries and third countries), scholarship opportunities and the challenges faced by refugee students.

Analysing the Population Data

Trend Analysis

In addition to Table 1, which offers descriptive statistics, Figure 1 shows the evolution of the population of young refugees in each of the 18 WCA countries for which data is available.

Figure 1 shows comparable trends in the evolution of young refugee populations over the period 2001 to 2020 in most of the countries considered. This upward trend points to an increase in refugee populations in WCA. However, after 2012, flatter slopes are observed in some countries with large young refugee populations (e.g., Chad, Burkina Faso and Liberia), while steeper slopes are evident in Nigeria, Cameroon and Niger. More sophisticated analysis, as provided in the following sub-sections, is required to determine whether this signals a convergence process among WCA countries in terms of refugee populations.

Distribution and Convergence Analysis

For the distribution analysis of the population of young refugees in WCA countries, we first observe the behaviour of the annual waves (cross-sections) in relation to the entire sample distribution. To do this, we standardise the observations (each data point) with respect to the annual mean of the entire sample. The analysis offers insights into the relative performance of the entire sample distribution.

Figure 2 displays the joint distribution of the refugee youth population (conditional density) and the corresponding contours, where we assume that the data generation process is of first order.² As noted by Quah (1997), Johnson (2000) and Lawson et al. (2020), this graphical/distribution approach is grounded in growth econometrics and complements the quantitative convergence analysis.

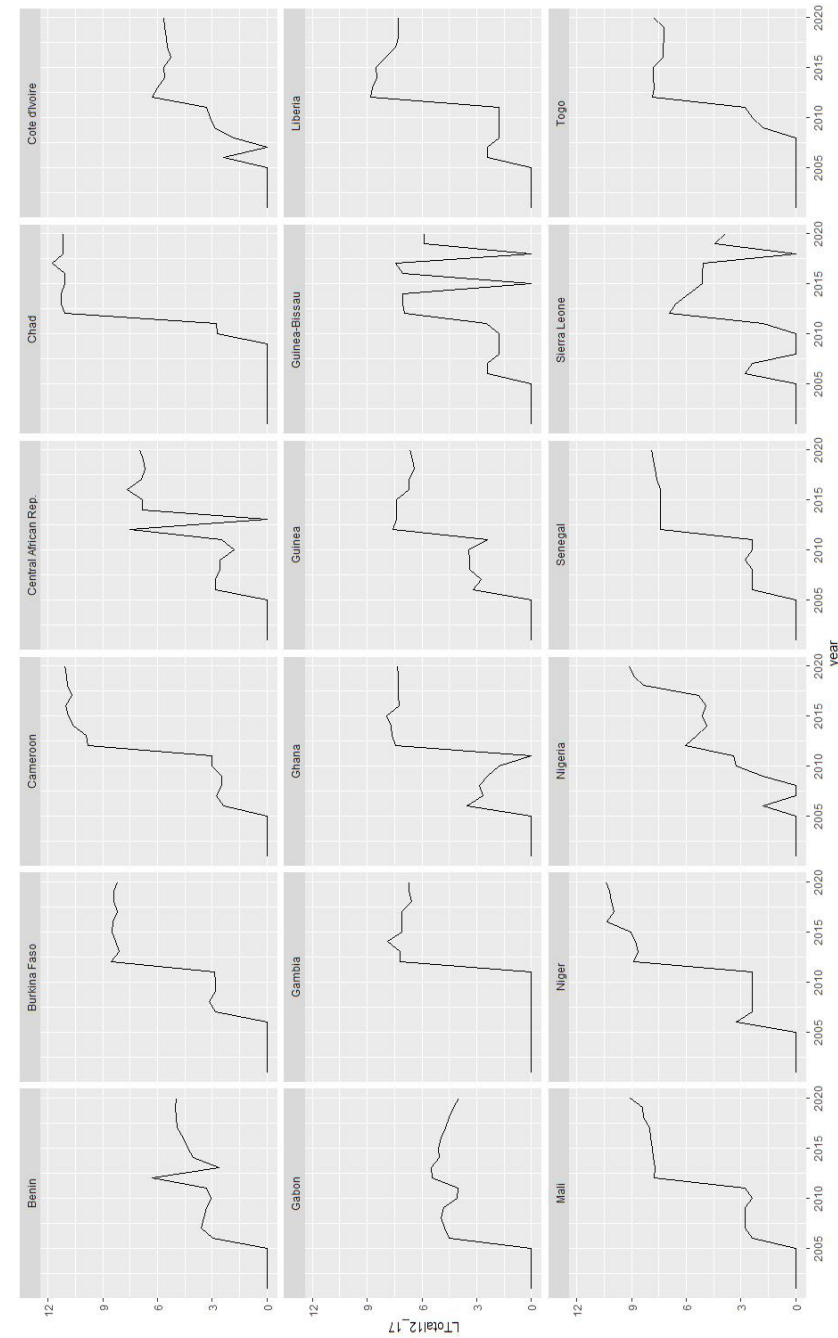
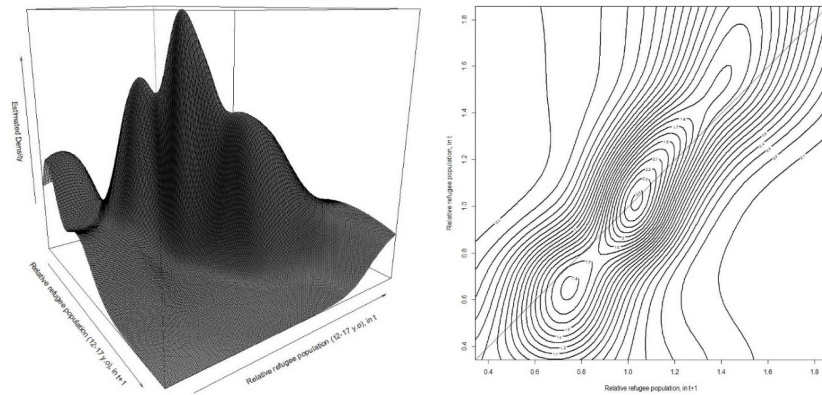


Figure 1: Evolution of young refugee populations in WCA countries (log-modified)
Notes: The data was log-transformed for this plot.



a. Conditional density estimate a. Contour plot

Figure 2: Conditional distribution of young refugee population in WCA countries

In observing the contour plot in Figure 2-b, it should be noted that the observations which do not change their relative values from $t-1$ to t lie on the 45°-line, while those below the 45°-line improve their relative position over time (increase in \ln conditionally to information in t). For relative values less than 1.2, the observed peaks (high-density areas) are below the 45°-line, suggesting that the observations (countries) improved their relative position over time. This means that a shift towards higher values is observed in countries with low relative values (smaller refugee populations). Overall, the graphical illustration suggests a catch-up process (convergence) of refugee youth populations in WCA, where countries with smaller refugee populations are growing faster towards higher figures.

Convergence Analysis

Our last examination of refugee youth population data in WCA relies on a convergence analysis. As the dataset covers 18 countries observed over more than a year, we use the well-known panel data approach for the study of conditional convergence introduced by Islam (1995). It starts with the following regression model for a population y_{it} in a country i at time t , with μ_i , where μ_i stands for the individual effects and ϵ_{it} are the error terms. The latter equation captures the local dynamics of the refugee population and describes its behaviour over time.

In the convergence literature (e.g. Johnson, 2000; Islam, 1995), the estimated value of α is defined as $\frac{\lambda}{\lambda + \tau}$, where λ and τ are respectively convergence rate and time span.³ Upon estimating the parameters of the regression model, we recover λ , which, when statistically significant, supports the hypothesis of a convergence process. Table 2 reports the results of the estimation using different time spans.

Table 2: Convergence analysis for young refugee population data in WCA

Time span	1 year	2 years	5 years
Estimated α	0.863*** (0.028)	0.932*** (0.027)	0.793*** (0.045)
Adj. R-Squared	0.736	0.877	0.804
F-stat (p-value)	972.968 (0.000)	1168.530 (0.000)	310.379 (0.000)
Corresponding	0.147*** (0.032)	0.035** (0.140)	0.046*** (0.011)

Notes: * $p < .1$; ** $p < .05$; *** $p < .01$. The specification test suggests a fixed-effects model. Robust std. errors are in brackets.

The results of the independent parameter estimations (Table 2), independently on time span, indicate that the model is globally significant as shown by the test statistics (F-statistics). Regarding the convergence hypothesis, the results show a significant convergence rate whether we consider 1-, 2- or 5-year time spans. This convergence analysis, together with our graphical illustrations (Figures 1 and 2), suggests that faster growth is ongoing in countries with relatively small or average young refugee populations, which will lead to a catch-up as noted by the distribution analysis.

In conclusion, our trend, distribution, and convergence assessments of refugee youth population data over the period 2001 to 2020 show a convergence process towards higher figures. In addition to the intensification of conflicts, the increase in insecurity issues in the Sahel region and climate change, as noted by Diarra (2012) and Abdalla (2009), this implies that rapidly growing populations of (young) refugees are to be expected in the WCA countries, at least in the near future.

As noted earlier, our working hypothesis considers increasing youth populations as a signal of increased demand for secondary and higher education (Cosentino et al., 2019). Therefore, the observed

trends and distributions raise questions relating to HE opportunities for young refugees in WCA. Specifically, what are the legal provisions surrounding refugee access to HE in WCA countries? What refugee-specific scholarship programmes are available in the asylum countries? What are the main challenges faced by refugees in accessing HE? The following section answers these questions.

Refugees’ Tertiary Education Pathways

The trend and distribution assessments revealed that the population of young refugees aged 12-17 in WCA countries is converging towards higher figures. Consequently, questions arise in relation to refugees’ access to HE in order to ensure inclusive and equitable education for all. In mapping the educational pathways of refugees in WCA, we examine the conditions surrounding refugee access to HE in each country as well as existing scholarships dedicated to refugees.

Refugees’ Access to Higher Education

Country-level legislation regulating refugees’ access to HE in most WCA countries is included in a Refugees Act or in national education policies or decrees. Our review of these for the 18 countries considered reveals not only a lack of clarity (no clear policy) but also of harmonisation among WCA countries in the manner in which refugees are treated in terms of access to HE. Table 3 summarises how each WCA country manages refugees’ access to HE, compared to primary and secondary education, where countries treat refugee students the same as nationals.

Table 3: Synopsis of legislation regulating refugees’ access to HE in WCA

	No less favourably than nationals	No clear policy
Tertiary education	Benin, Burkina Faso, Chad, Cameroon, Gabon, Gambia, Ghana, Guinea-Bissau, Guinea, Liberia, Mali, Niger, Nigeria, Sierra Leone, Togo	Central African Rep., Côte d’Ivoire, Senegal, Cape Verde, Sao Tomé and Príncipe

Notes: In the “No clear policy” group, some countries do not have a ‘Refugee Act’ (e.g., Central African Republic, Côte d’Ivoire). Senegal has a Refugee Law which does not distinguish between the conditions surrounding access to secondary and tertiary education. As things stand (in 2022), in practice, refugee students in Côte d’Ivoire and Senegal are considered foreign students.

Overall, in most countries, refugees accessing public education are treated no less favourably than nationals in the same circumstances. More specifically, as stated by the Nigerian National Commission for Refugees (1989), the refugee legislation of most countries clearly obliges the authorities to “accord to refugees treatment as favourable as possible and, in any event, not less favourable than that accorded to aliens generally in the same circumstances, with respect to education other than elementary education and, in particular, as regard access to studies, the recognition of foreign school certificates, diplomas and degrees, the remission of fees and charges and the award of scholarships”.

Compared to primary and secondary education, where most asylum countries in WCA accord refugees the same treatment as nationals (Table 3), some deviations are observed regarding HE, since no policy on refugee education was identified in countries such as Central African Republic and Côte d’Ivoire. In Côte d’Ivoire and Senegal, refugees are considered international students, implying higher tuition fees and no access to some social services (e.g., government scholarships).

Refugee-Dedicated Scholarship Programmes

In addition to the legal frameworks surrounding refugees’ access to HE in each country, some scholarship opportunities dedicated to refugees can be identified. However, our interviews with refugee students and UNHCR (2021b) suggest that demand far outstrips supply.

Of the existing scholarship programmes to support HE for refugees, the Albert Einstein German Academic Refugee Initiative Scholarship Programme (known as the DAFI Programme) can be considered the most visible in WCA. In 2020, 46% of refugee students supported by the DAFI programme (3 407) lived and studied in sub-Saharan Africa (SSA). UNHCR (2021b) figures indicate that 657 refugee students, or 19.3% of DAFI scholars identified in SSA, are located in the WCA region.

The landscape of existing scholarship programmes shows that in addition to country-specific scholarship provisions, for which refugees may be eligible depending on local legal frameworks, some transnational programmes dedicated to refugees are applicable to those residing in WCA. These include, among others, the Emergency Scholarship

Table 4: Overview of main refugee-dedicated scholarship programmes in WCA

Asylum countries	DAFI Prog.	DAAD Leadership for Africa Prog.	Refugee EdTech Prog. Emergency Scholarship Prog.	MasterCard Scholarship Prog.
Benin	✓		✓	✓
Burkina Faso	✓		✓	
Central African Republic			✓	
Chad	✓		✓	
Cameroon	✓	✓	✓	
Cote d'Ivoire	✓	✓	✓	
Gabon			✓	
Gambia	✓		✓	
Ghana	✓	✓	✓	✓
Guinea Bissau	✓		✓	
Guinea	✓		✓	
Liberia	✓		✓	
Mali	✓		✓	
Niger	✓	✓	✓	
Nigeria	✓		✓	
Senegal	✓	✓	✓	
Sierra Leone			✓	
Togo	✓		✓	

Notes: The superscript V indicates that the programme is available in the asylum country. Note that the data from Scholarship Opportunities for Refugees (2022) may change over time. An exhaustive, up-to-date list of refugee-dedicated programmes is available at: <https://services.unhcr.org/opportunities/>

Programme, the Refugee EdTech Program, the DAAD Leadership for Africa Programme, the DAFI Scholarship Programme and the MasterCard Foundation Scholarship Programme. It is worth pointing out that these programmes are not available in all WCA countries. For instance, the MasterCard Foundation Scholarship Programme is only available for refugees in Benin and Ghana (asylum countries). Furthermore, some scholarship programmes are available in the asylum country (e.g., the DAFI Programme) or a third country (e.g., DAAD Leadership for Africa). Table 4 shows that the main programmes relate to the country of asylum.

Challenges Confronting Refugee Access to Existing Education Pathways

The review of the existing literature and interviews with refugees helped to identify some intersecting challenges that refugees face in accessing

and completing HE in WCA countries. These include very limited scholarship programmes, language and entry barriers, economic issues, incompatible education systems among WCA countries, and the distance between refugee-hosting areas and campuses.

- **Limited Scholarship Programmes and Economic Barriers:** The evidence suggests that “in almost all DAFI country programmes, the demand for scholarships is far higher than the slots available” (UNHCR, 2021b). This signals the existence of very limited refugee-dedicated scholarship programmes and HE financing opportunities for refugees compared to demand. Consequently, thousands of young refugees who successfully complete secondary school and are motivated to access and complete tertiary education in WCA will face very strict selection criteria to obtain a scholarship, if any. In the context of WCA, where it is virtually impossible for refugees without financial support to access and self-fund graduate programmes, the lack of scholarship opportunities exacerbates the economic challenges faced by them and their families.

Furthermore, access to HE in WCA is hampered by high tuition fees, especially at nationally accredited private HE institutions. The cost of food, transportation, rent, textbooks and other material necessary for a good education programme increases the financial burden on university-ready youth populations without financial support. This also applies to refugees. As pointed out by refugee students, and Fynn (2010) and Tamrat and Habtemariam (2019), they struggle to exercise their right to education, especially HE:

While there's not even food in the house. The parent does not have money to give stipends to children... They (young refugees) will definitely not go to school. [...] I know it was difficult because the main concern was how to cater for our shelter and our feeding, so the education part wasn't really a priority at that time. (Anonymous refugee student in Ghana)

- **Language and Documentation Barriers:** Our interviews with refugee students and the existing literature indicate that language barriers significantly affect refugees' transition to HE in host countries with a different language from that of their country of origin. This echoes Tamrat and Habtemariam's (2019) findings on Eritrean refugees in Ethiopia.

In WCA countries, where French, English, Arabic, Portuguese and

Spanish are the main languages of instruction, some young refugees are forced to return to an earlier/lower grade, as they face language barriers and lack the proper documentation to directly transition to HE in their asylum country. A refugee student in Ghana observed: 'It was difficult to even enrol in a school [...] due to language barriers so I had to go back. If you were able to express yourself and write in English, you're good to go [...] but the system was completely different.' (Anonymous refugee student, Ghana)

- **Security Issues in Asylum Countries:** UNHCR data and Essah et al. (2021) note that when people flee their homes due to war, social unrest, persecution or natural disasters, they mainly find refuge in neighbouring countries. Unfortunately, some face additional security challenges due to unrest in host countries, which prevent them from accessing education. This is the case for most refugees living in refugee-hosting camps in Mali, Burkina Faso and the Central African Republic, among others, where recurrent terrorist attacks are observed.

- **Other Challenges:** Other difficulties in accessing HE in WCA host countries include incompatible education systems between the asylum country and the country of origin and the long distances between refugee-hosting areas (the main refugee populations) and university campuses in some cases. These issues make it difficult for some refugee students to access available opportunities. Furthermore, besides cultural, ethnic and religious barriers, inadequate teaching material, unsuitable or overcrowded classrooms, discrimination against refugee students by the local population and non-recognition of prior studies reduce young refugees' chances of obtaining quality HE.

Overall Assessment and Concluding Remarks

Overall Assessment

- **Young Refugee Populations:** This article assessed the evolution of young refugee populations aged 12 to 17 over the period 2001 to 2020. Our rationale for doing so was twofold. Firstly, data on university-ready young refugees is almost non-existent, and it was virtually impossible to extract data on the age group over 18 from the Refugee Population Statistics Database. Secondly, using data on refugees aged 12-17 has the

advantage of capturing groups of refugees that are mainly in secondary education and likely to express demand for HE in the near future.

- **Increasing Youth Population Leads to Growing Demand for Education:** The assessment indicated that the young refugee population in WCA countries is increasing rapidly and converging towards higher figures. Moreover, our regression analysis supports a statistically significant convergence process over the considered period.

As noted in previous research (e.g., Hewitt, 2020; Perie, 1997; Fuller, 2004), the share of a country's youth population (5-29 years old) is an indicator of potential demand for school enrolment. In the same vein, this article considered the increasing population of young refugees as an indication of growing demand for social services, including education. Moreover, since the convergence hypothesis holds, our results suggest faster refugee population growth and thus, increasing demand for tertiary education by refugees in countries where a relatively small or average refugee population is currently observed.

Lastly, taking into account refugees' increasing demand for tertiary education, symbolised by the growing population of young refugees and UNHCR data indicating that globally only 5% of young refugees, and 1.2% in WCA, are effectively enrolled in HE, understanding (mapping) refugee HE opportunities/challenges is a research priority.

- **Mapping Refugee Education Opportunities and Challenges:** The urgency of the refugee situation in developing countries created by the increasing refugee population calls for immediate, practical and concrete action to facilitate their access to HE. Thus, systematically mapping the HE opportunities and challenges faced by refugees in exercising their right to education is a logical step in identifying existing and potential HE pathways for refugees.

The mapping of refugee education opportunities revealed that, in most WCA countries, refugees have access to tertiary education under the same conditions as nationals. The two exceptions are Côte d'Ivoire and Senegal, where refugees are (for now) treated as international students, which is associated with higher tuition fees and no access to government scholarship programmes. With regard to scholarship schemes, the mapping exercise identified refugee-dedicated scholarships available

in the host countries in addition to opportunities that allow refugees to study in a third country (e.g., DAAD Leadership for Africa). Lastly, it is worth noting that although granting refugees access to education under the same conditions as nationals is commendable, the interviews with refugee students revealed that they confront severe socio-economic challenges in exercising their right to education.

Concluding Remarks

This article analysed UNHCR data on refugee youth populations in WCA using a combination of graphical and inferential methodologies. Considering overall growing refugee youth populations as a proxy for their demand for education, it mapped HE opportunities for refugees in the 21 countries under consideration. In addition, it drew on interviews with refugee students to identify the most recurring challenges they face in exercising their right to education. The findings from the available literature, data from the country-specific Refugee Acts, available refugee-dedicated scholarship programmes and the challenges identified inform the following remarks.

Our analysis indicates that, although an indispensable prerequisite, granting refugees access to education under the same conditions as nationals in WCA countries is not a sufficient measure of equity, as young refugees are differently positioned to transform such opportunities into valued outcomes. Moreover, since some young refugees face linguistic barriers and have access to limited information on the various policies, opportunities and laws surrounding refugee education in their host country, education leaders, international organisations and decision-makers are encouraged to take action to ease refugees' transition into the HE system in their respective countries in WCA. This should include institutional support to learn the local language of instruction, counsellors to help refugee students navigate the educational system and financial support to fund access to quality HE.

Regarding scholarship opportunities, our data and analysis show that refugee-dedicated programmes are very limited compared to demand. Since most refugee students already face financial burdens in their respective host countries, higher tuition fees, especially at private HE institutions, and the cost of educational material prevent refugees from exercising their right to tertiary education in WCA. Hence, the education

authorities and funders of refugee scholarship programmes should increase the number of refugee-dedicated scholarship programmes and, where feasible, offer reduced tuition fees or even exempt refugees from HE tuition fees. In addition, ensuring that refugee-focused policies are adhered to in both public and private HE institutions in WCA countries would curtail the economic barriers to accessing HE.

Lastly, a review of the literature on refugee education policies in industrialised countries assisted in identifying (complementary) HE pathways that are lacking in the African context, and that could help improve young refugees' access to tertiary education within the WCA region. The UNHCR defines complementary education pathways for admission as safe, regulated avenues that complement resettlement and provide refugee students with a lawful stay in a third country. Developing similar frameworks within the WCA region will increase education opportunities for refugee students, especially in settings where these are very limited. In order to initiate this and facilitate refugees' lawful stay in a third country within WCA for education purposes, the regional network of UNHCR partners and the public authorities should harness existing regional economic blocs and corresponding agreements that enable entry, residence and establishment of citizens from member states in WCA.

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(Endnotes)

- 1 The age groups, as collated by UNHCR (0-4, 5-11, 12-17 and 18-59 years old), do not dissociate the 18-30 group that can be considered as a proxy for HE-ready refugees.
- 2 A process is said to be of first-order when the observations at date depend on the values observed at .
- 3 The time span here refers to the period of time between observations. Originally, the refugee population data is an annual observation, thus $\tau = 1$. We consider different time spans in the data analysis, as such a process can help avoid short term disturbances.

Biomedical Engineering Education in Nigeria: Emergence, Challenges, Prospects and Areas for Development

Ayodele James Oyejide

Abstract

In the past five decades, Nigeria has witnessed a range of Biomedical Engineering (BME) and technology activities within private and public hospitals, research institutions, and a limited number of universities. These have mainly centred on the procurement, installation, and maintenance of medical equipment and devices. Trained technologists and technicians, equipped with relevant skills and certification, have primarily spearheaded these efforts. Consequently, the country has made a minimal contribution to the global knowledge base in BME research. However, academic programmes leading to degrees and dedicated research in BME have recently emerged within Nigerian universities. This article assesses the current state of BME education in the country, including the milestones achieved, ongoing challenges, and prospects for future development. It draws on a critical analysis of the existing literature on BME practices and education in Nigeria as well as the author's informed perspective. The findings highlight that BME education in Nigeria is yet to match international standards. To further develop these programmes, it recommends that attention focus on seven key areas that have proven instrumental in the development of similar university programmes in developed nations. Strategies are also proposed to foster collaboration among universities, researchers, the health sector, and government entities that would promote interdisciplinary BME education, ultimately enhancing the healthcare delivery system, and research and development (R&D) in Nigeria.

Key words: academic programme, biomedical engineering, biomedical education, biomedical in Nigeria, Nigerian healthcare.

Sommaire

Au cours des cinq dernières décennies, le Nigeria a connu une série d'activités d'ingénierie biomédicale et de technologie au sein d'hôpitaux privés et publics, d'instituts de recherche et d'un nombre limité d'universités. Ces activités sont principalement axées sur l'acquisition, l'installation et la maintenance d'équipements et de dispositifs médicaux. Des technologues et des techniciens formés, dotés de compétences et de certifications appropriées, ont été les principaux fers de lance de ces efforts. Par conséquent, le pays n'a apporté qu'une contribution minimale à la base de connaissances mondiale en matière de recherche sur les BME. Toutefois, des programmes académiques menant à des diplômes et à des recherches spécifiques en BME ont récemment vu le jour dans les universités nigérianes. Cet article évalue l'état actuel de l'enseignement des BME dans le pays, y compris les étapes franchies, les défis actuels et les perspectives de développement futur. Il s'appuie sur une analyse critique de la littérature existante sur les pratiques et l'enseignement des BME au Nigeria, ainsi que sur le point de vue éclairé de l'auteur. Les conclusions soulignent que l'enseignement des BME au Nigeria n'est pas encore conforme aux normes internationales. Les conclusions soulignent que l'enseignement des BME au Nigeria n'est pas encore à la hauteur des normes internationales. Pour développer davantage ces programmes, il est recommandé de se concentrer sur sept domaines clés qui se sont avérés déterminants dans le développement de programmes universitaires similaires dans les pays développés. Des stratégies sont également proposées pour favoriser la collaboration entre les universités, les chercheurs, le secteur de la santé et les entités gouvernementales, afin de promouvoir l'enseignement interdisciplinaire des sciences de la vie et de la médecine, et d'améliorer en fin de compte le système de prestation des soins de santé et la recherche et le développement (R&D) au Nigeria.

Mots clés: programme universitaire, ingénierie biomédicale, éducation biomédicale, biomédecine au Nigeria, soins de santé au Nigeria

Introduction

Biomedical engineering (BME) is one of the leading interdisciplinary engineering fields across the world. In integrating expertise in biology, medicine and engineering, not only does it promote collaborative healthcare activities between clinicians, researchers, and engineers, but also highlights the vital role played by engineering in physical and physiological studies of biological systems (Harris et al., 2002). The growth of BME over the past few decades has made a significant contribution to global medical diagnosis and treatment, leading to an improved quality of life. However, Nigeria is lagging behind in exploring the potential of this field, especially at the educational level. Although the country has been home to BME activities for decades, they were not tailored towards academic programmes. The majority, which are mostly handled by trained mechanical and electrical technicians, involve the installation, maintenance and replacement of medical tools in hospitals (Coker et al., 2015). Few university students or staff have produced scientific research publications in this field despite the fact that some universities/colleges have offered BME programmes for decades.

An obvious reason is that most practicing biomedical engineers and professionals in Nigeria are not trained to conduct research. The majority of BME programmes produce professionals who work in the medical devices and equipment industry (Bamigboye and Bello, 2020). This focus is understandable given that, when BME training was first offered at the University of Lagos in the 1980s, the country's population of around 74 million had access to few medical facilities. However, attention is now shifting from clinical practice to BME programmes with an interdisciplinary curriculum and research for national growth. The increasing health issues in Nigeria due to pollution, poverty and stress, as well as the amount lost to medical tourism each year, have highlighted the need for home-grown researchers in this field.

Steady progress has been made in this direction, including training provided to lecturers at the Universities of Ibadan and Lagos by the Northwestern University BME growth programme for sub-Saharan Africa, through a grant from the National Institutes of Health's Fogarty International Center in the US (Coker et al., 2015). At the American Society for Engineering Education (ASEE) International Forum held in June 2016 in New Orleans, it was reported that 12 researchers from

the University of Ibadan and 11 from the University of Lagos in the College of Medicine, and Faculties of Engineering, Science, Education and Economics had received training to foster interdisciplinary BME programmes in Nigeria (Gatchell et al., 2016). However, BME education in Nigeria is in its developmental stage.

Daniel and Muhammad (2014) provided an extensive analysis of the challenges confronting BME education and practice in developing countries, particularly the lack of technology and infrastructure. Okorie (2015) noted the need for Nigerian universities to offer such education and asserted that collaborative research by hospital staff and BME students would improve healthcare in the country. Kingsley Akarowhe (2018) focused on the ongoing challenges facing BME research in the country, including the fact that the medical data available in some Nigerian hospitals are inadequate and incorrect. Odeyemi et al. (2019) called for more research to be undertaken by Nigerian academics in general, highlighting biomedical research as one of the key areas. Bashiru and Bashir (2020) concurred and identified a number of misconceptions that stymie such efforts.

The literature as well as a number of national and international conferences and forums have proposed strategies to remedy this situation (Nkuma-Udah et al., 2015). It is against this background that this article identifies the issues that need to be addressed for the successful establishment of BME education in Nigeria.

BME Education and Research in Nigeria

Biomedical engineering education is a vital aspect of medical education across the world (Magjarevic et al., 2010), with universities and research organisations focusing on this field (Gehlot, 2009; Douglas, 2011). While BME activities in Nigeria can be said to have started in the 1970s, professional activities commenced with the collaborative efforts of the Universities of Lagos and Liverpool in 1982. This resulted in the establishment of the BME department in the former's College of Medicine. Its primary focus was on management of hospitals' medical equipment and engineering facilities (Nkuma-Udah et al., 2015). Similar programmes were established at Ahmadu Bello University, Zaria, in 1993 and University College Hospital (UCH), Ibadan, in 1996 (<https://uch-ibadan.org.ng/non-clinical-2/>) to train technologists and technicians

to install and repair devices for medical procedures. However, they were not designed to nurture the expertise required for scientific research. A shift occurred with the establishment of a Biomedical Technology department at the Federal University of Technology, Owerri in 2007 and the launch of the first undergraduate programme in BME at the University of Ilorin in 2016.

The mission of the Nigerian Institute for BME (NIBE), which was established in 1999 is “to develop and advance the biomedical science, health and human well-being of Nigeria through modern technological approaches comparable to those obtainable in any developed country of the world.” Biomedical engineering research in Nigeria is expected to cover five areas of human health and research, namely, biological engineering, medical engineering, clinical engineering, rehabilitation engineering, and biomedical physics/allied sciences (Voigt and Magjarević, 2014). However, given that most BME activities in the country continue to focus on servicing industry and health institutions, degree programmes leading to research in these specialisations tended to be limited to clinical and rehabilitation engineering; the earliest and still the most popular programme in Nigeria.

Several factors account for late acknowledgement of the value of BME in Nigeria. The lack of academic expertise among home-based researchers in the field, a shortage of funds to establish state-of-art facilities and infrastructure, and limited training for faculty and students are among the most important (Schneiber et al., 2010). However, some universities in Nigeria have taken up the challenge to create enabling environments for BME degree programmes that would facilitate interdisciplinary research. Different universities now offer academic undergraduate BME programmes relating to different areas of specialisation such as bioinformatics, biomaterials, biomechanics, and cellular and tissue engineering, among others. Table 1 lists these universities, the BME degree offered, and the year the programmes commenced. The data for this table were sourced from the respective school websites and the Internet at the time of writing this article.

Table 1: Nigerian universities with BME programmes

Universities/colleges	BME degree	Commencement	Host faculty
Achievers University, Owo	B.Eng.	2017	College of Engineering and Technology
Afe Babalola University	B.Eng.	2017	College of Engineering
Bells University, Ota	B.Eng.	2009	College of Engineering
Federal University of Technology, Owerri	B.Tech [#]	2022	School of Engineering and Engineering Technology
First Technical University, Ibadan	B.Eng.	2017	Faculty of Engineering and Technology
State University of Medical and Applied Sciences	B.Eng.	2015	Faculty of Engineering and Built Environment
University of Lagos	B.Eng., PGD, MSc	2017, 2012, 2013	Faculty of Engineering
University of Ibadan	BSc*, MSc, PhD	*, 2017, 2023	Faculty of Technology
University of Ilorin	B.Eng.	2010	Faculty of Engineering & Technology
University of Portharcourt	B.Tech		School of Science Laboratory

^{*}BSc programme curriculum submitted to the university senate for ratification.

[#]FUTO recently launched a BME programme in the School of Engineering and Engineering Technology and discontinued the Biomedical Technology programme in the School of Health and Health Technology.

Furthermore, an exploratory literature review on BME research in Nigeria points to significant efforts in the areas of biomaterials, biomechanics, cardiovascular and biofluid mechanics, bio instrumentation, the physical and mechanical behaviour of tissues treated on engineering materials, artificial intelligence, implantable devices and finite element models (Okorie, 2015). Research has been conducted on a diagnostic tool for obesity related issues (Vincent et al., 2019; Owolabi et al., 2021; Jilantikiri et al., 2022), rehabilitation (Fidelis and Arowolo, 2023), respiratory and cardiovascular biomechanics (Ayodele et al., 2021; Oyejide et al., 2023; Ige et al., 2023), biomaterials and tissue engineering (Ebenezer et al., 2023; Joy et al., 2022), bio-instrumentation (Yahaya et al., 2019), medical artificial intelligence (Zaccheus et al., 2023; Nwaneri and Ugo, 2022; Zaccheus et al., 2023), healthcare technology (Oyejide et al., 2023; Ige et al., 2023;) and biofluid mechanics (Ayodele et al., 2022; Fetuga et al., 2023).

Why Embrace BME Academic Programmes in Nigeria?

Nigeria is one of the few African countries with reasonably well-organised BME practice (Oluwadare, 2020). As the country that is home to the largest number of universities on the continent, it is expected to join the league of countries in the world with standard BME education. Daniel and Muhammad (2018) assert that, “Academics from developing countries must add their knowledge and experience to the ever-growing knowledge-pool of BME research.” However, given that significant BME practice in most developing countries such as Nigeria has focused on technical training in relation to medical devices and equipment, how do academics from such countries make a meaningful contribution to the global knowledge pool of BME research? Developed countries not only tackle global health issues, but have also conducted extensive research on those that are peculiar to developing countries. For example, for more than two decades, a World Health Organization (WHO)-United Nations Children’s Fund (UNICEF) partnership has invested millions of dollars in providing testing kits and drugs for malaria (Tan, 2016); Department for International Development, 2010). The COVID-19 pandemic is another case in point (Akinlabi et al., 2022). According to Brooking Report (2020), prior to the outbreak, there were just 350 ventilators in Nigeria. Furthermore, tracking those infected with the virus was a challenge due to limited technologies and equipment (Oyejide et al., 2023), undermining the authenticity of recorded and confirmed cases. Facilities and expert human resources, including biomedical engineers and researchers are thus required to prepare the country for future pandemics.

While the Nigerian government is committed to strengthening the healthcare system, especially laboratory capacity, scant attention has been paid to biomedical research. This resulted in local biomedical engineers and researchers playing a limited role in the prevention and treatment of malaria and COVID-19. Developing BME academic programmes would enable Nigeria to achieve a reasonable level of self-reliance in tackling health issues. Such programmes would also create opportunities for Nigerian researchers to contribute to the global BME knowledge pool. This can be achieved through the provision of technological infrastructure and teaching and research based on rigorous, yet flexible classroom activities, laboratory studies, field testing, and research

presentations and publications. It would require collaboration between the government and the country’s universities to develop standard BME educational programmes.

Challenges Confronting BME Research in Nigeria

Biomedical engineering research and education in Nigerian universities confront similar challenges to those arising in other fields of study and fellow developing countries.

Lack of an Enabling Research Environment

Nigerian universities produce many graduates with the capacity to conduct research each year; however, many opt to pursue further studies in developed countries that offer an enabling research environment and career prospects. The facilities and mentorship offered at universities abroad enable them to contribute to solution-based research. Moreover, Nigeria’s high unemployment rate and state of insecurity have resulted in many ambitious, talented scholars in different professional fields seeking greener pastures. As BME education becomes more well-established in the country’s universities, it is likely that graduates in this field will follow this trend.

Lack of State-of-the-Art Facilities

The Nigerian universities that offer BME programmes currently lack sophisticated, reliable research facilities. Only a few have dedicated laboratories for extensive in vivo and in vitro research. Many lack 3D printing machines to utilise materials such as scaffolds for tissue engineering and biomaterial research. Among other factors, this has led to low BME research output, especially in biology and medicine. A lack of state-of-the-art research facilities prevents researchers from making meaningful contributions to society. For instance, a parallel computational facility assists in modeling and simulations such as cardiovascular flow with no risk to humans and animals. Such a facility could also promote synergy between researchers in science and engineering. There is thus a need for BME departments to conduct research with the country’s research institutes that offer access to such facilities. Funding could be sourced from national agencies, the Ministry of Health, and private organisations with research interests in this field. It is also important that students have supervised access to these facilities.

Lack of Funding/ Misappropriation

Nigerian universities confront funding challenges despite the government's efforts to provide funds for research and development. A lack of funding has prevented a number of research universities from setting up laboratories that meet international standards. Furthermore, misappropriation of funds by university staff is an on-going threat as corruption has eaten deep into Nigeria's educational system (Dawood, 2012; Oladele, 2019). National structures should be established to monitor educational funding.

Funding for biomedical research should be stepped up and quality research should be rewarded with monetary or other incentives (Nkuma-Udah et al., 2009). The availability of funds influences the quality and impact of research and this is an essential requirement for any research institution (Bashiru and Bashir, 2020).

Poor Infrastructure

Access to relevant literature and research is an important aspect of any effective educational programme (Abukutsa-Onyango, 2010). Nigeria's browsing facilities are not reliable and students and researchers have limited access in some universities, with others yet to make such provision for students. Although the majority of faculty in well-established universities have Internet facilities, poor bandwidth from network providers sometimes interrupts activities such as online lectures and meetings. The development of BME education in Nigeria requires access to up-to-date and complete data, as well as peer-reviewed literature and reports (Arai et al., 2007). Interruptions in electricity supply also mean that universities incur the cost of fueling generators. The power supply is sometimes rationed to save costs, leading to issues with preserving specimens and operating some equipment.

Lack of Trust in Home-trained, Home-based Biomedical Engineers

Like many of its African counterparts, Nigeria has depended on developed countries for medical technologies and healthcare for decades. Medical tourism costs Nigeria more than N576 billion each year (Gehlot, 2009; Abubakar et al., 2018). This is due to the fact, that first, the country lacks the required facilities and expertise. Second, optimal use is not made of local experts. Consequently, Nigerians travel abroad for treatment

even if facilities are available. Lastly, the Nigerian medical sector prefers to engage the services of foreign engineers, sidelining locally trained engineers and researchers. This situation calls for the skills of BME graduates to be upgraded and for the medical sector and citizens to allow local engineers and researchers to prove their worth.

Lack of Access to Medical Data from Hospitals

According to Kingsley Akarowhe (2018), some Nigerian hospitals have poor record keeping systems, hampering research activities. Cultural norms and inflexible policies also prevent researchers from gaining access to medical records. The use of paper files rather than electronic medical information systems also stymies research. Resistance to adopting more modern methods is due to the belief that moving patients' records online would make some staff redundant. However, quality research with patient-specific impact requires that data be made easily available to researchers.

Accelerating BME Education in Nigeria

The BME programmes in some Nigerian universities are making progress while in others, structures are in the process of being put in place to commence such programmes. The following recommendations and strategies were identified to contribute to the development of BME in developed countries, and Nigeria in particular. Figure 1 summarises the recommendations.

Robust Undergraduate Curriculum

The curricula followed by many Nigerian universities result in many students cramming to pass without internalising the basic concepts of the course. The reason is that due to inadequate facilities, some practical aspects of courses are taught theoretically. To avoid this pitfall, BME programmes should include practical sessions that involve activities that reinforce the theories taught in lectures. The curriculum should be designed to equip students with the experience and research skills required for postgraduate studies. The programmes should thus include courses and practice that build their competence in the use of research tools such as imagining, numerical simulations, computational fluid dynamics, machine learning, bioinformatics, 3D printing, material characterisation, scientific computation, robotics and so on.

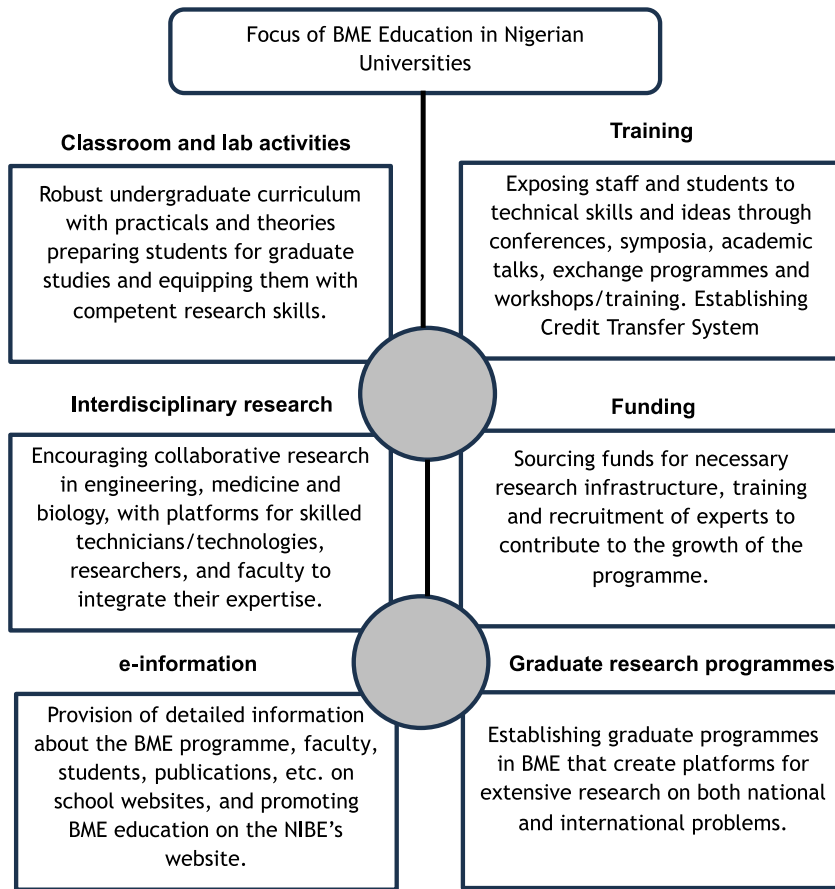


Figure 1: Key focus areas for the development of BME education in developed countries

Raising Awareness

The websites of BME departments in Nigerian universities lack full information on their faculty and research activities. This could discourage prospective students from enrolling in their programmes and international researchers from collaborating with them. University websites in developed countries provide sufficient information on the institution and its programmes. The NIBE could promote local programmes by having links on its website to academic institutions offering BME. The NIBE website should also include news articles on progress in BME in the country and research undertaken. Cooperation

between the NIBE and universities with BME programmes could stimulate interest in interdisciplinary BME education. It would also assist in soliciting funding from state and federal programmes and encourage secondary school students to consider BME as a career. A good example of such an initiative is the University of Ibadan that exhibited its mechanical and BME innovations at the newly established UI Design Studio-Innovation hub in November 2021, sponsored by Rice University, Houston, Texas, USA, under the platform of NEST360 project. As a member of the department, I witnessed students' overwhelming interest in participating in the programme, including those from other engineering departments. Similar initiatives should be considered in other universities, and they should be publicised in the media in order to attract students and researchers from every corner of the country.

Training for Students and Faculty

An institution's development is generally achieved through training workshops, seminars, research and exchange visits with other universities (Abouelenein, 2016). Over the years, many established programmes in Nigerian universities have followed this trend, especially at graduate level. As a body with links to international organisations such as International Federation of Medical and Biological Engineering, the NIBE can leverage this platform to train Nigerian-based researchers. This could involve exchange programmes that empower students and lecturers with technical research skills. Universities should invest in BME conferences, symposia, academic talks, and workshops/training. Platforms should also be provided to encourage students and lecturers to conduct research and present the outcomes at conferences and meetings. An obvious benefit is the exchange of ideas between visiting and home-based researchers. This would offer Nigerian researchers the opportunity to brainstorm with researchers with access to top-notch research facilities and renowned faculty and thus expand the scope of knowledge and problem-solving techniques in the country (Bashiru and Bashir, 2018).

Research at Graduate Level

Core BME research is the domain of postgraduate researchers (Rajamohanam et al., 2015). Postgraduate training thus lays a scientific,

rational and ethical foundation for future research practice. Okorie (2015) noted that it is also essential for biomedical engineers to have considerable knowledge of both engineering and medical science, at least biology, as well as pursue their education to masters or doctoral level in order to develop interdisciplinary research capacity. A few schools offer BME at postgraduate level. As stated in its mission, the BME MSc programme at the University of Ibadan aims “To develop a skilled workforce capable of creating new biomedical industries and providing solutions to emerging local and global healthcare challenges.” This points to an interdisciplinary stance that needs to be adopted by more institutions in the country. Encouraging research in BME at graduate level will not only attract researchers from other parts of Africa, but will also benefit the health sector as it will produce new knowledge on medical issues, especially those peculiar to Nigeria and the continent at large.

Interdisciplinary Research

The field of BME is a broad one that covers an array of disciplines. Moreover, it has evolved as a result of technological advancements as well as breakthroughs in other fields such as chemical engineering, computer science and engineering, and physics (Harris et al., 2002). Researchers are now able to investigate, monitor, and mitigate the severity of health challenges (Elliot et al., 2021). However, BME academic programmes in Nigeria have yet to expand their scope to cover the many areas of research pursued in universities in developed countries. This could be one reason why the country struggles to meet global standards in healthcare delivery. For example, at the University of Ibadan, faculty for the graduate BME programmes should come from several related fields like Pharmacy, Dentistry, Industrial, Mechanical, and Electrical Engineering, Mathematics, and Physiology, among others, and students should be paired with co-supervisors who can synchronise their expertise and work with students to conduct rich scientific research and produce high impact publications.

Focus on Specific National Challenges

Apart from being a degree programme, BME is generally expected to provide solutions to human health challenges. Therefore, BME education should inculcate problem-solving in students. Specific

national challenges should be the focus of research in this field, with students, faculty, and funding organisations collaborating to positively impact patients and society. For instance, many universities and private laboratories in developed countries have focused on diseases like cancer and cardiovascular disorders, with Masters, PhD, and post-doctoral researchers funded to contribute their expertise to findings solutions. This is not a common research pattern in Nigeria due to the fact that there are few medical research funding organisations and that the country’s laboratories lack sufficient equipment to attract funding. Hence, research is often motivated by simply obtaining a degree. Given that many Nigerian researchers are achieving much with the limited resources available to them, I would argue that, if BME faculties focus on solution-based research, they will attract grants and will be able to recruit researchers to find solutions to the medical challenges confronting Africa and Nigeria such as malaria and cholera.

Short- and Long-Term Local Needs as an Initial Focus for BME Graduate Education

While most scholars and professionals have argued that insufficient funding (Oyibocho et al., 2014) and human resources (Salami et al., 2016) are primary issues in relation to healthcare in Nigeria, from a BME point of view, innovations in relation to medical devices, point-of-care diagnostics (POCD), telemedicine infrastructure, and healthcare data analytics are acute challenges. In the short term, innovations regarding medical devices and POCD can serve as focal points for BME graduate education. For instance, BME graduate programmes could focus on training students to design, develop, and adapt POCD technologies such as robust, affordable, and user-friendly devices that are well-suited to resource-constrained environments. In addition, given the electricity challenges in Nigeria (Leng et al., 2020; Adebayo and Ofoegbu, 2014), graduate students could engage in cutting-edge research aimed at designing energy-efficient and sustainable POCD devices.

However, its long-term vision is what will sustain BME education (Linsenmeier and Saterbak, 2020). As Nigeria strives to achieve universal healthcare access and to bolster its healthcare infrastructure, BME graduate education should embrace forward-thinking domains in areas such as telemedicine, electronic health records (EHR), health informatics,

medical imaging, data analytics, and mobile health applications. For instance, graduate students could be equipped with hands-on experience in developing remote patient monitoring systems that can track vital signs, chronic conditions, and other health parameters. According to Ayokunle et al. (2022), remote monitoring was a critical challenge in Nigeria during the COVID-19 pandemic. Similarly, graduate education could look into health data integration; training students to integrate EHR, patient monitoring data, and medical imaging into mHealth apps while adhering to data privacy and security standards. Such systems can enable continuous patient care and early intervention.

Recruitment of Faculty with Expertise, Especially with BME Backgrounds

A lack of sufficiently trained human resources is perhaps the greatest challenge confronting BME education in Nigeria. Most BME faculty are not academically trained in this field, with the majority from mechanical and electrical engineering and others from engineering, science and basic medical sciences. Their appointment is due to the fact that they are considered to have sufficient expertise to teach BME courses. While this could promote interdisciplinary research, their lack of a background in BME could also impose limitations on classroom teaching, especially for undergraduates.

Credit Transfer System

The European Credit Transfer System (ECTS) has demonstrated its efficacy in promoting academic mobility and collaboration within the European Union (Wagenaar, 2019; Serpa et al., 2020) and has been adopted across the globe (Hotta, 2020; Mirzayev, 2022). This strategic approach could facilitate students' seamless mobility between academic institutions, both within the country and internationally, while ensuring the acquisition of essential training and expertise (Pallikarakis et al., 2018; Mirzayev, 2022). Adopting a similar model could enable Nigerian BME students to harness the benefits of diverse educational offerings and distinctive institutional strengths. It would offer them a well-rounded, tailored educational experience while fostering cross-institutional partnerships that enrich the BME landscape in the country. Such a system would not only allow students to access specialised courses across various institutions, but also enable these institutions to

focus their resources and expertise on specific BME areas aligned with local needs.

A Credit Transfer System could pave the way for joint initiatives and the creation of dedicated engineering departments specialising in key BME domains. This approach aligns with the overarching goal of addressing the unique challenges and opportunities within Nigeria's healthcare and engineering sectors. Collaborative efforts would catalyse the development of a robust and versatile workforce (Chakpitak and Bouras, 2015) equipped to tackle complex biomedical challenges on both a local and global scale.

Active, Adaptive and Experiential Learning and Teaching

Furthermore, a profound opportunity arises at the intersection of BME education in Nigeria and the wealth of experience inherent in clinical engineering, specifically in the domain of medical equipment operation and maintenance. The global evolution of BME education encourages a reimagining of pedagogical approaches, embracing the principles of active, adaptive, and experiential learning and teaching as catalysts for curriculum innovation and interdisciplinary collaboration (Singh, 2017; Linsenmeier and Saterbak, 2020). The synergy between BME academics and clinical expertise holds tremendous potential to shape the BME curriculum to align with evolving healthcare demands, as well as facilitate the scheduling and logistics of courses and the continuity of the concepts delivered (Siewerdsen, 2020). Methodologies that actively engage students through problem-solving, group discussions, and hands-on projects (Hernández-de-Menéndez et al., 2019) can bridge the theoretical-practical gap, fostering deeper understanding of the intricacies of medical equipment and technology. Such an approach not only imparts technical proficiency but also cultivates the critical thinking and decision-making skills that are vital to address complex healthcare challenges.

Adaptive learning, with its personalised and data-driven instructional design, is able to tailor educational experiences to individual students' needs, optimising knowledge acquisition and retention (Singh, 2017). It can also be harnessed to accommodate diverse learning paces and styles within the BME cohort, facilitating comprehensive skills development. Moreover, incorporation of experiential learning mechanisms such

as internships, practical workshops, and clinical rotations can forge a robust connection between engineering and clinical institutes. Nigerian BME undergraduate students normally undergo mandatory six-month industrial training before returning for their final-year projects. This time should be used to immerse students in real-world healthcare settings to gain firsthand insights into clinical workflows, patient care dynamics, and the practical implications of BME solutions. Discussions on curriculum in developed countries (White et al., 2020; Seow et al., 2019) suggest that a combination of active, adaptive, and experiential learning methodologies could serve as a dynamic force in BME education in Nigeria, enabling curriculum development that bridges disciplinary boundaries and enhances the proficiency of future biomedical engineers.

Prospects of BME Education in Nigeria

Given Nigerian BME academic programmes' steady progress and the interest shown by more universities in offering the programme, BME education is likely to gain ground. As universities roll out competent graduates in this field, the Nigerian BME industry will need to expand to accommodate them. In turn, universities will need to expand their programmes as more undergraduates and graduates show interest in them. This will increase the need for faculty, providing job opportunities for graduates of BME programmes. Likewise, as the BME programme finds its way into almost all accredited universities in Nigeria, lecturers will need to conduct quality research to remain relevant. Ultimately, as Nigerian universities contribute to global health solutions, the programme will gain international attention through grants, exchange programmes, collaboration and training, leading to national development and an improved healthcare system.

Conclusion

Nigeria is one of the few African countries to have recorded relative progress in the establishment of BME education. To entrench and expand such progress, BME needs to navigate the transition from clinical engineering practice to robust, innovative academic programmes in universities. To achieve this milestone, medical doctors, hospital managers, ministries of health, the government, technologists and the NIBE should share a common aspiration to improve biomedical

education and enable Nigeria to take the lead in biomedical research. As the government, hospitals, research institutes and universities continue to work towards tackling the ongoing challenges of BME education and research in the country, quality attention and resources should be devoted to the issues discussed in this article, namely, the need for a robust undergraduate curriculum, awareness raising, training for students and faculty, graduate-level and interdisciplinary research, a focus on specific national health problems, the establishment of a credit transfer system and recruitment of faculty with expertise, especially with a BME background. Adoption of these recommendations would boost training, research, resources, and facilities and in turn enhance public health and economic development.

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Affordability of Higher Education in South Africa: Are Above Inflation Tuition Fee Increases Justified?

C. Serfontein and A. V. A. Smit

Abstract

This article investigates why South African universities increased their tuition fees above inflation during the period 2010 to 2019 (intentionally excluding the potential distortion caused by COVID-19). The affordability of higher education is the subject of increased debate among stakeholders in South Africa. From a financial point of view, universities, as typical service organisations, should have benefited from an increase in enrolments. The main reason is that their expenses are typically period costs and are hence less affected by an increase in enrolments. However, the key findings of the study on which this article is based were that revenue increased above inflation, with tuition fees the main culprit. In turn, the reason for increased tuition fees is a significant increase in expenses. This suggests that universities did not benefit from economies-of-scale or efficiency in managing their expenses. The research makes a unique contribution to the body of knowledge by assessing why university tuition fees increased using a financial model to project budgeted revenue, expenses and tuition fees (taking inflation and growth in student enrolments into account) for 2019 using actual financial data from 2010.

Key words: tuition fees, affordability, public universities, efficiency, economies-of-scale

Sommaire

Cet article étudie les raisons pour lesquelles les universités sud-africaines ont augmenté leurs frais de scolarité au-delà de l'inflation au cours de la période 2010-2019 (en excluant intentionnellement la

distorsion potentielle causée par le COVID-19). Le caractère abordable de l'enseignement supérieur fait l'objet d'un débat croissant parmi les parties prenantes en Afrique du Sud. D'un point de vue financier, les universités, en tant qu'organisations de services typiques, auraient dû bénéficier d'une augmentation des inscriptions. La raison principale est que leurs dépenses sont généralement des coûts périodiques et sont donc moins affectées par une augmentation des inscriptions. Cependant, les principales conclusions de l'étude sur laquelle se base cet article sont que les revenus ont augmenté au-delà de l'inflation, les frais de scolarité étant les principaux responsables de cette hausse. L'augmentation des frais d'inscription s'explique à son tour par une augmentation significative des dépenses. Cela suggère que les universités n'ont pas bénéficié d'économies d'échelle ou d'efficacité dans la gestion de leurs dépenses. La recherche apporte une contribution unique au corpus de connaissances en évaluant les raisons de l'augmentation des frais d'inscription dans les universités à l'aide d'un modèle financier permettant de projeter les recettes, les dépenses et les frais d'inscription budgétisés (en tenant compte de l'inflation et de l'augmentation des inscriptions d'étudiants) pour 2019 en utilisant les données financières réelles de 2010.

Mots clés: frais de scolarité, accessibilité financière, universités publiques, efficacité, économies d'échelle

Background and Introduction

In a report for KPMG, Parker (2020) states that the 'Golden Age' of traditional universities is ending as students and governments are no longer willing to pay for the services they provide (i.e., on-campus, face-to-face tuition). Minor (2023) concurs and notes that students consider the cost versus the benefits of higher education and that the former seem to currently outweigh the latter. It would thus seem that the days of traditional universities trying to be everything to everybody are numbered. The rate of change, coupled with the knowledge explosion, has changed the face of higher education, rendering it impossible for universities to be experts in all fields. Worldwide, traditional universities are struggling to survive in the face of declining government support and demands for

relevant education, as well as competition amongst universities and from private institutions. Online and opensource learning created a much more competitive environment, giving students access to more relevant and affordable education. Parker (2020) and Temoso and Myeki (2023) also allude to universities' inability to improve their labour productivity, leading to increased tuition fees. Thus, the failure of traditional, regional universities presenting face-to-face teaching to improve management of their expenses to offer more affordable education in an environment where students have an array of relevant and cheaper options, would seriously impact their chances of survival.

Globally, a growing number of students cannot afford higher education due to rising fees, leading to the commercialisation and commodification of knowledge (Schmidt, 2020; Dickler, 2021; Ivancheva and Garvey, 2022; Marcus, 2022). Affordability refers to students' ability to pay tuition fees (Peters et al., 2020, p. 740). For the purposes of this article, it is considered from the perspective that if tuition fees increase at a rate above inflation, it is unlikely that students, the majority of whom are poor in South Africa, will be able to afford higher education.

Rising tuition fees have been a bone of contention amongst South African students for several years, coming to a head in 2015 when campuses across the country were shut down by student protests under the banner of #FeesMustFall (Rand Daily Mail Newswire, 2015; Heher, 2017; Ndenze, 2018). This followed the proposal by the Minister of Higher Education to increase tuition fees by 10% to 12%. The #FeesMustFall protests escalated to a call for free higher education (Businessstech, 2015; BBC, 2016; South African History Online, 2016). Worldwide, research has indicated that poverty contributes to limiting access to higher education (Dipitso, 2021). In South Africa, where most students come from low-income households (Masehela, 2018), higher tuition fees exacerbate the situation.

Affordability of higher education is of grave concern in South Africa given the legacies of apartheid (Dipitso, 2021). In the democratic era, this sector has been tasked with remedying the socio-economic legacies of apartheid and colonialism and breaking the cycle of poverty. The National Student Financial Aid Scheme (NSFAS) was established as part of the response to this expectation. This national grant and loan scheme aims to increase access to higher education for undergraduate students from poor and working-class households with a combined income of up to

R350 000 per annum (Koornhof, 2020; Masutha, 2020). In 2020, 42% of enrolled students at South African universities were funded by NSFAS (Koornhof, 2020). In 2021, more than 750 000 applications were received, an increase of 25% from the previous year (Naidu, 2021). An added risk for South African universities emanating from unemployment and aggravated by COVID-19 is that some students will move into the 'missing middle' (households with a combined annual income of R350 000 to R600 000), meaning they will be too poor to afford higher education but will not qualify for funding, thus increasing the risk of non-payment of tuition fees (Koornhof, 2020; Naidu, 2020). In January 2024, Minister of Higher Education Dr Blade Nzimande announced that R3.8 billion would be set aside to cater for this group.

Globally, increased student debt is a further challenge emanating from substantial increases in tuition fees. On 24 August 2022, the President of the United States (US) announced relief for student debt (United States Government, 2022). According to Dickler and Nova (2022), in 2022, this amounted to \$1.7 trillion owed by 44 million students. The Biden Administration stated that, "A post-high school education should be a ticket to a middle-class life, but for too many, the cost of borrowing for college is a lifelong burden that deprives them of that opportunity" (United States Government, 2022). This expectation leads to willingness among students to incur debt to ensure employability and an improved standard of living.

Higher education recorded extraordinary growth following the Second World War, changing from an elitist to a high or mass-participation system. This contributed to technological progress, social well-being, nation building and, ultimately, life enrichment (Parker, 2020). However, the massification of higher education caused the earnings premium of a degree to decrease. For example, it is estimated that a fifth of the degrees conferred in the United Kingdom are not worth their cost in terms of future returns. Britton et al. (2020) thus assert that these students would have been better off had they not studied. The fact that student loans must be repaid adds to this equation (Smit and Serfontein, 2019). If a graduate cannot find employment or obtain a job with a return related to the cost of tuition, his/her debt will continue to increase, and his/her financial status (which in South Africa is primarily poor) will worsen.

Student debt in South Africa amounted to R16 billion in September

2022, increasing by around R2 billion per annum (Mail and Guardian, 2022). Given that students incur debt in the expectation that they would obtain employment, increasing student debt levels should be reflected in a decreasing graduate unemployment rate. However, in quarter 1 of 2022, the unemployment rate among young graduates aged 15-24 in South Africa stood at 32.6%. For those aged 25-34, the graduate unemployment rate was 22.4% for the same period (Statistics South Africa, 2022b). Thus, about one in four South African graduates was unemployed in the first quarter of 2022.

Graduate unemployment is a serious concern, especially in a country like South Africa, which is among the most unequal countries in the world, with a Gini coefficient (last measured in 2014) of 63% (Editorial, 2022). This implies that the wealthiest 10% of South Africans own 71% of the wealth whilst the poorest 60% only own 7% (Editorial, 2022). It is for this reason that South African youth seek affordable higher education that will enhance their employability (Smit and Serfontein, 2019).

Globally and in South Africa, higher education cannot be considered 'affordable', especially since the return on its cost is decreasing. Coupled with rising tuition fees and spiralling student debt, this calls into question the efficiency of university administration that causes expenses to increase (Parker, 2020; Serfontein, 2022).

While the purpose of universities is the subject of extensive debate, given that the majority of South African students come from disadvantaged backgrounds, they cannot afford the luxury of obtaining knowledge that will not lead to increased employment opportunities. Many academics might argue that this might not be the purpose of a university, but serving their immediate community is one of universities' acknowledged objectives, and if that community consists of a significant number of poor households, the university cannot relinquish its responsibility to alleviate poverty, and one way to do so is to enhance employability. Indeed, many South African universities' mission statements highlight their role in improving the employability of their graduates.

Research Problem

The prevalence of unemployment in South Africa is caused by many factors, ranging from sluggish economic growth, to poor quality

education, and government inefficiency. The youth are affected the most by unemployment (Smit and Serfontein, 2019). Whilst the unemployment rate has escalated over the past decade, there have been significant increases in universities' tuition fees. New graduates' spiralling debt burden negatively impacts economic development (Mail and Guardian, 2022). Given South Africa's unequal wealth distribution and high unemployment and poverty rates, it is critical to provide affordable higher education. The high graduate unemployment rate, together with rising tuition fees, begs the question of whether universities are behaving ethically in charging high fees for education that cannot guarantee employment, leaving graduates with enormous levels of debt. A further concern is the reason why tuition fees have increased, especially after the increase in government funding following the #FeesMustFall campaign. It is against this background that this article investigates whether the increases in tuition fees at South African universities are justifiable and if these institutions are achieving the goal of affordable higher education.

Research Objectives

The primary research objective was to determine the affordability of tuition fees at South African universities by analysing how well these institutions' revenue and expenses were managed from a financial management perspective, focusing on the sampled universities as typical service organisations with relatively high period costs that should have benefited from an increase in enrolments. The secondary objectives were to:

- Evaluate the performance of South African universities' revenue in terms of the budgeted benchmark (related to growth in teaching input units (TIUs) and teaching output units (TOUs)) from 2010 to 2019;
- Determine possible reasons for the increase in tuition fees from a financial management perspective;
- Evaluate South African universities' expenses in terms of the budgeted benchmark (related to growth in TIUs and TOUs) from 2010 to 2019; and
- Determine the strength, form, and structure of the relationship between the difference between actual and budgeted total

revenue as the dependent variable (y) and budgeted and actual expenses as the independent variable (x).

Literature Review

South Africa's higher education landscape needs to be understood in order to measure the impact of increases in tuition fees. Higher education in the country consists of privately and publicly funded institutions (Mabizela, 2002, p. 49; Kruss and Kruss, 2005, p. 273). This article focuses on publicly funded universities, of which there are currently 26, with the majority mainly delivering on-campus, face-to-face tuition. The University of South Africa (UNISA), which only offers distance education (Universities South Africa, 2018) was excluded from this study. Thus, for the purposes of the article, a traditional university is a publicly funded university primarily delivering on-campus, face-to-face tuition.

Purpose of Traditional Universities

Kotzee and Martin (2013) assert that any conversation on traditional universities should include a debate on their purpose, nature, and value. While the authors of this article concur with this observation, debating the role of a traditional university falls outside its scope. Instead, the authors argue that if universities' financial affairs are not managed efficiently, thus preventing them from providing affordable education that ensures employability, they fail to achieve their most important objective.

A traditional university's three main focus areas are teaching, research and public service (Perkins, 1973; Etzkowitz et al., 2000; Walton and Martin, 2004; Bikse et al., 2016). As noted above, they primarily provide face-to-face, on-campus tuition, separating them from other higher education institutions that provide online or distance education to passive recipients (Mackeogh and Fox, 2009; Long, 2012). Further characteristics of traditional universities identified by Walton and Martin (2000, 2004) are sponsorship of research, the openness of access, a focus on education, evidence of scholarly activity, and independence. For the purposes of this study, an essential characteristic of traditional universities is that they are not-for-profit organisations that provide a diverse range of services to their community (Serfontein and Smit, 2021).

Universities as Service Organisations

When universities are considered service organisations, it is critical to understand their cost structure. Service organisations confront challenges in defining a clear input-output relationship (Serfontein, 2019). The main reason is the complexity of defining a single unit of service output (Gripper, 1995; Terzioglu and Chan, 2013). Output diversity, that refers to output that relies on different measures of support activities, adds to the complexity of defining a unit of service output (Gripper, 1995). The lack of a causal input-output relationship renders most of the costs incurred by service organisations period costs. Since most of the costs are not specifically related to the cost objective, they are therefore not assigned to this objective (product cost), but reported in the period in which they were incurred (period cost) (Terzioglu and Chan, 2013; Drury, 2018).

Efficiency at Universities

Improved efficiency occurs when the relationship between a decision-making unit's weighted outputs and weighted inputs improves (Charnes, Cooper and Rhodes, 1978; Kudła, Stachowiak-Kudła and Figurski, 2016). In other words, efficiency is indicated by the cost effectiveness ratio of operating costs (input) divided by related output (Titus et al., 2021). According to Perović and Kosor (2020), efficiency is also achieved when a decision-making unit's stated goals are fulfilled with the resources employed. It therefore starts by defining input and output (Toukoushian and Lee, 2018). For the purposes of this study, inputs were regarded as total council-controlled unrestricted expenses and output as tuition fees as representative of enrolments. A similar study that explored economies-of-scale at American community colleges also utilised total cost as an input measure and enrolments as an output measure (Toukoushian and Lee, 2018). One of the main factors to consider in the management of universities is to understand how to measure the efficiency of its units (Mojahedian et al., 2020). Efficiency entails that the organisation should have benefited from an increase in enrolments since most of the costs it incurs are period costs without a clear causal input-output relationship. Economies-of-scale typically occur at higher education institutions (Kuo and Ho, 2005; Robst, 2001). The increase in tuition fees experienced at universities seems to point in the opposite direction, indicating that they did not

benefit from economies-of-scale that should have led to improved efficiency.

Economies-of-Scale at Universities

Universities achieve economies-of-scale when the average cost per student decreases, since the same period costs incurred are covered by a greater number of students (Williams, Morgan and Lloyd, 1993; Zhang and Worthington, 2017). Therefore, economies-of-scale are achieved when the resources utilised (cost) of delivering a service to one student (enrolment) decrease as the student numbers increase. The empirical part of this study investigated whether universities did, in fact, benefit from improved efficiency by requiring decreased tuition fees to cover their expenses as enrolments increased.

Research Methodology

The empirical part of this study analysed financial data from a sample of the 26 publicly funded universities in South Africa. Regression analysis was applied as an inferential statistical tool.

Description of the Sample

As noted previously, South Africa has 26 publicly funded universities. A sample of 16 was selected from this population, with UNISA excluded due to the fact that it is a distance learning institution. While summarised information is available for all 26 institutions for the period considered in this study, this data is a) not sufficiently detailed, b) not comprehensive or grouped similarly for the entire period, and c) does not separate restricted and unrestricted and council-controlled financial data. For these reasons, the researchers gathered the financial data analysed from the actual financial statements of the sampled universities.

The sample size was due to the fact that a) some universities in the population did not exist or were very small in 2010, b) financial statements were not available for the period covered by this study, and c) certain universities did not provide sufficient detail in their financial statements for the purpose of this study. Thus, only universities that published financial statements with sufficient disclosure were included in the sample.

The sample of 16 universities represents 61.5% of the population of 26. However, when considering TIUs and TOUs as the primary

indication of the subsidies and grants revenue stream received by universities, as can be seen in Table 1, it is representative. TIUs and TOUs can be considered as a measurement of the size of the sample and population since subsidies and grants comprise the most considerable portion of revenue received by universities (Statistics South Africa, 2020).

Table 1: TIUs and TOUs of the population and the sampled universities

	Total TIUs		Total TOUs	
	2010	2019	2010	2019
Population	1,158,537	1,553,743	134,270	202,694
Sample	798,363	1,053,193	88,194	126,307
% of Population	68.9	67.8	65.7	62.3

Table 1 shows that the sample represents more than 67% of the TIUs of the population and more than 62% of the TOUs. Research output units (ROUs) were specifically excluded from the empirical part of this study because, at 7% in 2015 and 8% in 2019 of the total unrestricted revenue of South African universities, they would not have a significant impact on the findings. Tables 2 and 3 illustrate the portion of the sample's revenue and expenses in relation to the population.

Table 2: Average Revenue and Expenses: Population versus Sample 2015

Average	2015 (R1 million)		Sample / Pop.	2015 Composition	
	Pop. 26	Sample-16		Pop. 26	Sample-16
Revenue**	2,018.6	2,040.1	101.1%	100.0%	100.0%
Expenses**	1,946.9	1,901.6	97.7%	96.4%	93.2%
Net Surplus	71.7	138.5		3.6%	6.8%

*The population universities include restricted revenue and student accommodation revenue as well as UNISA which is substantially bigger than any other university in the sample, while the sample only reflects unrestricted revenue.

**The population universities include restricted expenses and student accommodation expenses, while the sample only reflects unrestricted expenses.

Table 3: Average Revenue and Expenses: Population versus Sample 2019

Average	2019 (R1 million)		Sample	2019 Composition	
	Pop. 26	Sample-16	/ Pop.	Pop. 26	Sample-16
Revenue*	3,401.1	2,969.3	87.3%	100.0%	100.0%
Expenses**	2,798.9	2,559.0	91.4%	82.3%	86.2%
Net Surplus	602.2	410.3		17.7%	13.8%

*The population universities include restricted revenue and student accommodation revenue as well as UNISA which is substantially bigger than any other university in the sample, while the sample only reflects unrestricted revenue.

**The population universities include restricted expenses and student accommodation expenses, while the sample only reflects unrestricted expenses.

As illustrated in Tables 2 and 3, when total revenue and total expenses are considered, the sample represents a substantially bigger share of the population. In 2015, revenue per university of the sample represented 101.1% of the population, whilst the sample represented 97.7% of the expenses of the population. These figures decreased somewhat in 2019, when the sample represented 87.3% of the population in terms of revenue, and 91.4% in terms of expenses. Based on the information in Tables 2 and 3, the sample was regarded as representative of the population.

Important Terms, Concepts, and Assumptions

The empirical part of this study analysed the financial data of the sampled universities for a nine-year period from 2010 to 2019. All the data were secondary data in the public domain. This section provides more detail on the terms, concepts, and assumptions applicable to the analysis of the financial data.

Revenue

The analysis of the financial data focused on three areas, i.e., revenue, expenses and growth. The first analysis related to the sampled universities' total council-controlled unrestricted revenue. As per South African universities' funding model, total revenue consists of subsidies and grants, tuition fee income and other (third-stream) income (PwC South Africa, 2016; Heher, 2017; Koornhof, 2020; Naidu and Dell, 2020). Tuition fee income was also analysed as part of the analysis of total revenue.

Expenses

Total council-controlled unrestricted expenses were the next element analysed. Total expenditure was grouped into academic and other personnel costs, and other expenditure, which includes operating expenses and depreciation.

Growth

The analyses of the growth in total revenue, tuition fee income and total expenses were performed using a budgeted benchmark. This was calculated considering both inflation and growth in enrolments (the term nominal TIOU growth will be used for the purpose of this study comprising TIUs and TOUs).

The growth in TIUs and TOUs from 2010 to 2019 was regarded as the most appropriate proxy for growth in enrolments, with the term TIOUs used to refer to their combined growth. Total South African inflation was based on the all items, total country Consumer Price Index (CPI) for the nine years (Statistics South Africa, 2022a). The same inflation (59.41%) was used for all universities, but the individual growth in each university's TIOU was used to calculate the budgeted values separately. Equation 1 illustrates the calculation of the nominal TIOU growth rate applied:

Equation 1: Formula to calculate the nominal TIOU growth

$$\text{nominal TIOU growth} = (1 + \text{inflation}) \times (1 + \text{TIOU growth}) - 1$$

Focusing only on unrestricted council controlled revenue and expenses, the extent to which actual total revenue, tuition fee income and total expenses deviated from the projected budgeted benchmark values provided an indication of whether the sampled South African universities managed their revenue and expenses efficiently, including whether they benefited from economies-of-scale.

Research Method

The actual 2010 amounts for total revenue, tuition fee income, other revenue and total expenses were adjusted using the nominal TIOU growth rate from 2010 to 2019 to determine their budgeted benchmark for 2019. The actual 2019 amounts were then compared to the 2019 budgeted benchmark to determine whether universities managed their

revenue and expenses efficiently.

For total revenue and tuition fee income, the 2019 budgeted benchmark was deducted from the actual 2019 income. A positive difference is interpreted as negative (depending on where the additional revenue was generated from), since it indicates that universities received more than what was reasonably expected. For total revenue, tuition fee income and other revenue only one growth scenario was applied, i.e., 100% inflation and 100% growth in TIOUs.

In analysing total expenses, the 2019 actual total expenses were deducted from the 2019 budgeted benchmark. Two possible scenarios were applied, namely, 100% inflation and 100% growth in TIOUs, and 100% inflation and 50% growth in TIOUs. Since the majority of costs incurred at universities are period costs without a direct causal relationship to the number of enrolments, the authors are of the opinion that including only 50% of the growth in TIOUs is still a very conservative projection that does not fully take the benefits of efficiency, economies-of-scale or technology into account. A negative result indicates that universities spent more than what was reasonably expected, suggesting a possible lack of efficiency in managing their expenses. All the differences between the budgeted benchmark and the actual amounts for total revenue, tuition fee income and total expenses were expressed as a percentage of the budgeted benchmark.

The last part of the empirical study entailed a regression analysis, which determines which independent variables explain the significant change in the dependent variable under consideration. Regression analysis can also be used to explain the strength, form, and structure of the relationship between variables. Lastly, it can be employed to predict the value of the dependent variables (Malhotra, Nuna and Birks, 2017). The Statistical Package for the Social Sciences (SPSS) was utilised to perform the regression analysis that tested the difference between budgeted and actual total expenses' relationship to the difference between actual and budgeted total revenue. A bivariate regression analysis was applied since a mathematical relationship (equation) between a single predictor, or metric-independent variable and a single metric-dependent variable was determined (Malhotra et al., 2017). Equation 2 illustrates the bivariate regression equation applied.

Equation 2: Bivariate regression model straight line formula

$$y = \beta_0 + \beta_1 x + e_i$$

In Equation 2:

- y = Dependent variable
- x = Independent variable
- β_0 = Line intercept
- β_1 = Line slope
- e_i = Error term (residual)

In most regression models, parameters are unknown. However, they can be estimated from the observations in a sample by applying Equation 3 (Malhotra et al., 2017).

Equation 3: Equation to estimate parameters

$$\hat{Y}_i = a + bx_i$$

The variables in Equation 3 are as follows:

- \hat{Y}_i = Predicted dependent variable value (actual – budgeted revenue)
- a = Independent variable value (actual – budgeted expenses)
- b = Vertical axis intercept ()
- x_i = Slope of the straight line ()

Equation 2 was used to develop the regression equation illustrating the relationship between the difference in actual and budgeted total revenue as the dependent variable (y) and the difference in budgeted and actual expenses as the independent variable (x). The aim of the regression analysis was to determine whether the increase in revenue (especially tuition fees) at the sampled South African universities was caused by an increase in expenses (both above inflation). A range of observations of y and x for the sampled universities was entered into SPSS to derive the regression findings presented in Table 14 in the following section, which also contains the results of the analysis of the financial data.

Results

The literature suggests that the increase in university tuition fees over the past decade is a worldwide phenomenon that has undermined disadvantaged students' opportunity to obtain a degree and resulted in high levels of student debt that are increasing exponentially. This is of particular concern in South Africa that suffers from high levels of poverty and unemployment and has the most unequal distribution of wealth in the world. Levelling the playing field to enable disadvantaged students to have access to a tertiary qualification should be one of universities' primary objectives. From a financial management perspective, above inflation increases in tuition fees could be the result of a) a decline in government subsidies, b) decreased student enrolments, or c) increases in expenses above growth and inflation.

The empirical questions addressed in this study were a) what are the trends in total revenue and tuition fees at universities, and b) how **efficiently** are South African universities managing their expenses to ensure that students obtain **affordable** education? The financial statements of a sample of 16 of the 26 publicly funded South African universities for the period 2010 to 2019 were analysed to answer these questions. The 2019 financial year was intentionally chosen to exclude COVID-19's impact on their financial performance. Analyses were performed to:

- Assess actual total revenue, tuition fee income, other revenue and total expenses from 2010 to 2019.
- Calculate budgeted total revenue, tuition fee income, other revenue and total expenses for 2019 (using the 2010 financial statements as the base).

Table 4 uses inflation of 59.41% for this period, while the average growth in TIOUs for the 16 universities was 33.04%. Using Formula 1, an increase of 112.08% (taking inflation and 100% of TIOU growth into account) was used to calculate the budgeted values for both revenue and expenses for 2019. In addition, a growth of 85.75% (100% inflation and 50% of TIOU growth) was used for expenses to calculate alternative budgeted expenses for 2019. These assumptions and calculations are illustrated in Equation 1 (see previous section) and Table 4.

Table 4: South African Universities: Inflation and Growth in Enrolments from 2010 to 2019

2010 – 2019	% Increase (100%)	% Increase (50%)
Inflation	59.41	59.41
Growth in TIOUs	33.04	16.52
Nominal TIOU growth (100%)	112.08	
Nominal TIOU growth (50%)		85.75

Table 4 illustrates that mean budgeted revenue and expenses should increase by 112.08% as a reflection of the nominal TIOU growth rate from 2010 to 2019 (85.75% if expenses only increased by 100% inflation plus 50% of enrolment growth). If actual revenue and tuition fees exceeded the budget in 2019, this shows that the actual revenue of the sampled universities increased more than necessary. If actual expenses exceeded the budget, this implies that the sampled universities did not manage their expenses efficiently. Tables 5 to 13 compare budgeted total revenue, tuition fee income, other revenue (taking 100% inflation plus 100% TIOU growth into account) and total expenses (100% inflation plus either 100% or 50% TIOU growth) for 2019 to the actual amounts related to these variables. Table 5 focuses on actual versus budgeted total revenue for 2019.

Table 5: South African Universities: 2010 as a Base to compare Budgeted versus Actual Revenue for 2019

Unrestricted Revenue	MEAN: Per University		All 16 Univ. Rand ('000)
	Rand ('000)	Increase %	
Actual Revenue:			
- Mean 2010	1,320,142		21,122,278
- Mean 2019	2,969,318	124.92	47,509,085
Budget 2019	2,832,227		45,315,631
Dif. (Actual - Budget)	137,091		2,193,454
% Dif. (Actual/Budget) - 1	4.8		

Table 5 illustrates that actual mean revenue for 2019 was R137.1 million per university, above inflation and 100% growth in TIOUs (actual minus budget). Depending on the source of this additional revenue, this is not necessarily a negative trend. To put the means into perspective,

the 16 sampled universities were split into two groups, namely, a group with actual total revenue above inflation and TIOU growth (or budget), and the other that stayed within budget. The same division was applied to tuition fee income. It was established that ten universities generated actual revenue above budget and six stayed within budget.

Table 6: South African Universities that Generated Actual Revenue above Budget versus those within Budget

Unrestricted Revenue	10 Univ.	6 Univ.
Actual Avg. Revenue (R'000):	> Budgeted Revenue	< Budgeted Revenue
- Mean 2010	1,123,937	1,647,151
- Mean 2019	2,651,869	3,498,399
Mean Budget 2019	2,313,915	3,696,080
Difference	337,954	- 197,681
% Difference	14.6	-5.3
Difference (Total) (R'000):	3,379,539	(1,186,086)

What is interesting about Table 6 is that smaller universities generated revenue above budget (compare the mean in 2019). The differences are quite substantial, with the universities that exceeded budgeted revenue at a difference of 14.6% (R3,379.6 million for ten universities) and those that stayed within budget at a difference of -5.3% (-R1,186.1 million for six universities). The purpose of these calculations was to establish the difference among the universities, but before reaching a conclusion, it was important to focus on tuition fees as one of the major sources of revenue to make any deduction regarding *affordable* education.

Table 7: South African Universities: 2010 as a Base to compare Budgeted versus Actual Tuition fee income for 2019

Tuition fees	MEAN: Per University		All 16 Univ.
Actual Tuition fees:	Rand ('000)	Increase %	Rand ('000)
- Mean 2010	415,691		6,651,048
- Mean 2019	1,030,383	147.87	16,486,130
Mean Budget 2019	892,143		14,274,295
Dif. (Actual - Budget)	138,240		2,211,835
% Dif. (Actual/Budget) - 1	15.5		

Table 7 indicates that South African universities generated additional revenue (above budget) almost exclusively from tuition fees (a R137.1 million difference in actual versus budgeted revenue versus R138.2 million for tuition fees). Their top management could argue that the relative decrease in subsidies is the main reason for the abnormal increase in tuition fees. However, Table 8 confirms that this is not the case.

Table 8: South African Universities: 2010 as a Base to compare Budgeted versus Actual Other Revenue for 2019 (excluding Tuition fees)

Other Revenue (Excl. Tuition)	MEAN: Per University		All 16 Univ.
	Rand ('000)	Increase %	Rand ('000)
Actual Other Revenue:			
- Mean 2010	904,452		4,471,230
- Mean 2019	1,938,935	114.38	31,022,955
Mean Budget 2019	1,940,083		1,041,336
Difference (Actual - Budget)	- 1,149		- 18,381
% Dif. (Actual/Budget) - 1	-0.1		

Although actual other revenue (predominantly subsidies) did increase less than budget, it is only -0.1% below budget, which is negligible. Focusing on the difference between both actual and budgeted revenue and tuition fee income, it is obvious that tuition fees, rather than other revenue or subsidies and grants, increased above budget, which confirms that the sampled universities used an increase in tuition fees to increase their revenue from 2010 to 2019.

Hence, it is reasonable to conclude that, by increasing tuition fees above inflation and enrolment growth from 2010 to 2019, South African universities did not act in the interests of students and thus did not offer affordable education. Table 9 highlights that this does not necessarily apply to all sampled universities. If some universities did not have to increase their tuition fees above inflation from 2010 to 2019, it is unlikely that there could be a uniform or external reason for doing so.

Table 9: South African Universities that Generated Actual Tuition fees above Budget versus those within Budget

Tuition fees (R'000)	10 Univ.	6 Univ.
Actual Tuition fees:	> Budgeted Tuition fees	< Budgeted Tuition fees
- Mean Actual Tuition Fees 2010	359,262	509,738
- Mean Actual Tuition Fees 2019	930,878	1,196,225
Mean Budget 2019	737,628	1,149,669
Difference (Actual - Budget)	193,250	46,556
% Dif. (Actual/Budget) – 1	26.2	4.0
Difference (Total):	1,932,499	279,335

The same grouping used in Table 6 was applied in Table 9. The ten universities with actual total revenue above budget increased tuition fees at 26.2% above budget, thus using an increase in tuition fees to increase their revenue streams. This implies that, in 2019, students paid R1,932 million more in tuition fees than necessary across these ten universities, without the universities benefiting from economies-of-scale or efficiency. Similarly, six of the universities with actual total revenue within budget increased their tuition fees above inflation, but only by 4% as opposed to 26.2% among the worst performing universities. In our view, from a financial management point of view, there is almost no justification for these increases in tuition fees to the detriment of disadvantaged students requiring affordable education. Table 10 focuses on total expenses of South African universities in order to identify possible reasons for the increase in tuition fees.

Table 10: South African Universities: 2010 as a Base to compare Budgeted versus Actual Expenses for 2019

Expenses at 100% of TIOU Growth	MEAN: Per University		All 16 Univ.
	Rand ('000)	Increase %	Rand ('000)
- Mean 2010	1,206,184		19,298,947
- Mean 2019	2,559,039	112.16	40,944,630
Mean Budget 2019	2,588,811		41,420,977
Difference	29,772		476,347
% Difference	1.2		

Table 10 focuses on the worst-case scenario, namely that budgeted total expenses for 2019 will increase with both inflation and 100% growth in TIOUs. Universities can be regarded as typical service organisations, which should benefit from predominantly period costs rather than product costs in their cost structure. Period costs such as salaries are fixed for a period of time, irrespective of the number of enrolments (in the case of universities). Hence, most expenses incurred by universities should not increase above inflation with a moderate increase in student enrolments. In addition, a university's expenses include non-academic salaries and operating expenses that are indirect to teaching as one cost objective, and the number of enrolments as the second. The only costs with a direct input-output relationship (also called product costs) are academic salaries. Therefore, to increase expenses in the budget with both inflation and the growth of TIOUs is to include a measure of inefficiency in the budget for 2019.

The findings are relatively positive in the sense that actual expenses were just 1.2% under budget for 2019, but as noted previously, the situation would have improved if economies-of-scale and efficiency were taken into account. Table 11 considers the expenses of universities whose budget minus actual expenses was positive (underspending) versus those where it was negative. Coincidentally, these two groups also had a ten-versus-six split, although there were small differences between the first (driven by revenue) and the second (driven by expenses) groupings.

Table 11: South African Universities with Actual Expenses above Budget versus those within Budget

Expenses at 100% of TIOU Growth	10 Univ.	6 Univ.
Actual Expenses (R'000):	> Budget	< Budget
- Mean 2010	1,038,366	1,485,882
- Mean 2019	2,194,746	3,166,195
Mean Budget 2019	2,037,789	3,507,182
Difference (Budget - Actual)	-156,957	340,987
% Dif. (1 - Actual/Budget)	-7.7	9.7
Difference (Total):	(1,569,575)	2,045,922

The results in Table 11 are quite concerning. The amount the ten universities overspent on their budget averages -R157.0 million per

university for 2019; thus, there is no indication of either efficiency or benefits from economies-of-scale. On the positive side, six universities achieved budget minus actual expenses of R341.0 million per university and did not overspend on their expense budget. If all 16 universities overspent on their expense budget, there might have been an accepted external factor justifying the overspending. However, this is not the case, indicative of inconsistent management of expenses at the sampled universities. The true measure of efficiency is when expenses grow in line with inflation, but much slower than enrolment growth. Given the fixed and indirect nature of most of the costs at a typical university, it could be expected that expenses increase with inflation, but not nearly at 100% of the growth in enrolments. Adding technology, efficiency, and economies-of-scale to the equation, especially non-academic salaries and operating expenses should only be marginally influenced by TIOU growth.

To address this problem, the budgeted expenses for the sampled universities are considered from two separate scenarios, i.e., including total inflation and 100% growth in TIOUs and total inflation and 50% of the growth in TIOUs. We are of the view that including only 50% of the growth in TIOUs is still a very conservative projection, not fully benefiting from the fixed and indirect nature of these expenses or fully taking the benefits of efficiency, economies-of-scale or technology into account. Tables 12 and 13 focus on the assumption of 100% inflation plus only 50% of TIOU growth.

Table 12: South African Universities: 2010 as a Base to compare Budgeted (50%) versus Actual Expenses for 2019

Expenses at 50% of TIOU Growth	MEAN: Per University		All 16 Univ.
	Rand ('000)	Increase %	Rand ('000)
- Mean 2010	1,206,184		19,298,947
- Mean 2019	2,559,039		40,944,630
Mean Budget 2019	2,242,605	85.75*	35,881,678
Difference (Budget – Actual)	-316,435		-5,062,952
% Dif. (1 – Actual/Budget)	-14.1		

*See Table 4.

As noted above, in an environment with predominantly period and indirect costs, any growth in the volume of the cost objective (enrolments) delivered should have a minimal impact on expenses (excluding inflation). Applying this principle to determine the 2019 expense budget using 100% inflation and only 50% of TIOU growth, the results in Table 12 do not bode well for South African universities' ability to benefit from economies-of-scale and from an efficiency point of view. The actual total expenses for 2019 for all the sampled universities exceeded the budget by R5.1 billion. This is a clear indication of poor financial management by not benefiting from economies-of-scale, improved technology, or efficiency in managing their expenses. Not only is this a direct reflection on the top management of South African universities, but it also explains, in part, the increase in tuition fees. Table 13 again differentiates between the group of universities that incurred actual expenses for 2019 above budget versus those that stayed within budget (using only 50% of TIOU growth).

Table 13: South African Universities with Actual Expenses above Budget (50%) versus those within Budget

Expenses at 50% of TIOU Growth	10 Univ.	6 Univ.
Actual Expenses (R'000):	> Budget	< Budget
- Mean 2010	1,038,366	1,485,882
- Mean 2019	2,194,746	3,166,195
Mean Budget 2019	1,841,656	2,910,853
Difference (Budget - Actual)	- 353,090	-255,342
% Dif. (1 - Actual/Budget)	-19.2	-8.8
Difference (Total):	(3,530,902)	(1,532,050)

Of great concern is that, in terms of actual expenses, considering only 50% of TIOU growth and 100% inflation, both groups did not stay within budget. Although the Rand differences between the two groups are not material, the percentage difference of -19.2% versus -8.8% between the two groups is substantial; again, a clear indication of South African universities' inability to control their expenses from a financial management perspective. The fact that universities are not-for-profit organisations does not justify poor financial management of expenses. Tables 14 and 15 present a regression analysis between actual less budgeted total revenue (dependent variable) and budgeted less

actual total expenses (independent variable). The following hypothesis was formulated:

H_{1_0} : *There exists no significant relationship between budgeted less actual total expenses and actual less budgeted total revenue.*

H_{1_a} : *There exists a significant relationship between budgeted less actual total expenses and actual less budgeted total revenue.*

As shown in the following two tables, there is a significant (sig. = 0.003**) relationship between overspending on expenses and the increase in revenue ($r = -0.697$). The reason for the negative correlation is that actual revenue above budget is positive, while actual expenses above budget are negative.

Table 14: Actual less Budgeted Total Revenue versus Budgeted less Actual Total Expenses

		Actual - Budgeted Total Revenue	Budgeted - Actual Total Expenses
Pearson Correlation	Actual - Budgeted Total Revenue	1.000	-0.697
	Budgeted - Actual Total Expenses	-0.697	1.000
Sig. (1-tailed)	Actual - Budgeted Total Revenue		0.001**
	Budgeted - Actual Total Expenses	0.001**	
N	Actual - Budgeted Total Revenue	16	16
	Budgeted - Actual Total Expenses	16	16

**Significant at <1%; *Significant at <5%

Table 15: Actual less Budgeted Total Revenue versus Budgeted less Actual Total Expenses Regression Analysis

R	r ²	Adjusted r ²	Sig. F Change
.697a	0.486	0.449	0.003**

**Significant at <1%; *Significant at <5%

Tables 14 and 15 confirm that H_{1_0} is rejected and that the sampled universities increased their revenue to fund their expense increases above inflation and growth. The regression model in Table 15 confirms the universities' dependence on revenue, specifically tuition fees, to cover their expenses since almost 45% (Adjusted $r^2 = 0.449$) of the change in

the difference between actual and budgeted revenue can be explained by a change in the difference between budgeted and actual expenses. Not only is this unacceptable; it is clearly not sustainable. As indicated in Tables 7, 8 and 9, universities exclusively used tuition fees to increase their revenue. Although these results were the trend for the sampled universities from 2010 to 2019, quite a few universities did not increase their expenses or tuition fees above inflation and TIOU growth for this period, indicating that this phenomenon is not necessarily indicative of common/mutual external factors impacting all universities. Although the sampled universities' net surplus was not a research focus, if the actual 2019 revenue (Table 5) and actual 2019 expenses (Table 10) are deducted from the actual 2010 revenue and expenses, respectively, the mean net surplus increased from R114.0 million to R410.3 million per university, an increase of 260.0% or 69.8% above both TIOU growth and inflation, a concerning factor for organisations such as universities that lack a profit motive.

Conclusion

The period 2010 to 2019 was intentionally chosen to assess the financial results of the sampled universities. Some of the universities did not exist or were very small prior to 2010, and 2019 was selected to mitigate the impact of COVID-19. The study's primary focus was to determine whether the tuition fees at South African universities were still affordable by investigating whether the increases were justified. This was achieved by first assessing the revenue performance, focusing on the sampled universities as typical service organisations with relatively high period costs that should have benefited from an increase in enrolments. As indicated in Table 4, the sampled universities showed an increase of 33.0% in enrolments (TIOUs) from 2010 to 2019, indicating that they grew in size. Secondly, the focus was on investigating the possible reasons for the increase in tuition fees with the aim of determining whether or not it was justified. The second part of the investigation began with an analysis of expenses at the sampled universities to determine whether they benefited from economies-of-scale and thus managed their expenses efficiently. Thirdly, the correlation between the universities' revenue and expenses was considered as part of the quest to explain the increase in tuition fees. While universities are not-for-profit organisations, this does not justify inefficient management

of expenses nor the failure to benefit from economies-of-scale to provide affordable higher education in a country characterised by poverty, unequal distribution of wealth and unemployment.

Top management of universities will most probably justify the increase in tuition fees and the related increase in expenses, and there might be some reasonable explanations from their perspective. However, since the increase in both expenses and revenue were not consistent amongst the sampled universities, justification would be difficult. The sampled universities almost exclusively used an increase in tuition fees (above inflation and growth) to cover the abnormal increase in expenses. Students at the 16 universities paid R2.212 billion (see Table 5) too much for tuition in 2019 alone, or R3.380 billion at the ten universities with the largest difference between actual and budgeted revenue (see Table 6). In an environment of poverty and unemployment where universities' primary objective should be affordable higher education, these differences are unacceptable, and any form of overpayment would make it unaffordable for a household under financial pressure.

Focusing on expenses, we argue that, given the fact that universities are typical service organisations with predominantly period costs that are indirectly linked to an increase in enrolments, determining budgeted expenses for 2019 using 100% inflation and 50% enrolment growth is a very realistic and even conservative assumption. Using this norm, Table 12 indicates that the sampled 16 universities overspent on their budget by R5.063 billion for just the 2019 financial year. Universities have two primary stakeholders, namely, students seeking affordable education and the government that provides subsidies and grants. All indications are that top management at the sampled universities did not act in the interests of these two primary stakeholders by increasing tuition fees to fund the growth in expenses above budget. From a financial management perspective, this clearly reflects inefficient management of expenses.

The limitations of this research study include that not all 26 universities were included in the sample, and all the revenue streams and expense categories were not analysed. Although it was outside the scope of this article, an above budget salary increase for academic personnel would, to some extent, be a reasonable explanation for increasing tuition fees given the need for new and more relevant skills in the market. Non-salary related expenses, such as technology and services (electricity, rates and

taxes, etc.) could also be used to explain increased expenses. Regardless of these limitations, the study's results are extremely concerning, with the rejection of H_{10} confirming that universities increased their tuition fees to fund the increase in expenses rather than due to declining government subsidies or reduced student enrolments.

An issue that was not addressed in the empirical part of this study was the disruption caused by the 4IR, expedited by COVID-19, with traditional face-to-face universities losing their competitive advantage due to opensource and online learning being the new norm. Students can and increasingly will obtain more affordable and relevant higher education from the best universities in the world, with a resulting decline in student enrolment in traditional universities. Given that university expenses are typically period costs that remain fixed for a period of time, a decline in enrolments is a serious risk that could impact these institutions' very survival. Declining enrolments will lead to reduced revenue streams, but, given the fixed nature of expenses, almost no spontaneous decline in expenses. The scope of this study did not allow for a more detailed examination of the disruption of higher education. Future research could investigate the full impact of introducing free education in South Africa and students' expectations surrounding access to higher education.

It is clear that South African universities did not manage their expenses efficiently from 2010 to 2019 and, to make matters worse, used abnormal increases in tuition fees to fund these inefficiencies. They therefore, did not benefit from economies-of-scale that typical service organisations are expected to experience in times of growth and technological advancements. From a financial perspective, being a not-for-profit organisation does not justify poor management of expenses or, even worse, increasing their net surplus to almost 70% above enrolment growth and inflation. Lastly, violating their responsibility to provide affordable education to all students, specifically those from disadvantaged backgrounds, could be regarded as unethical behaviour. The inconsistencies in the increase in expenses among the sampled universities are a clear indication that there is no mutual external reason for this phenomenon, but rather, a lack of discipline or commitment amongst top management to ensure that tuition fees remain reasonable so that students can afford to obtain higher education.

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Performance Management and Quality Assurance in Higher Education: A Conceptual Framework for a Blended Approach

Elias Rashidi and Raphael M. Jingura

Abstract

This article proposes a framework to promote continuous quality improvement in higher education by bringing performance management and quality assurance together in a single approach. Blending the two systems eliminates the challenges of a two system approach. The study employed a quantitative methodology, with data collected by means of a closed-ended questionnaire administered to academic and administrative staff at four purposely selected public higher education institutions in Zimbabwe's four major ethnic regions. The questionnaire drew insights from a framework developed by Silimperi et al. (2002) on essential elements for developing quality assurance systems. Fourteen elements were used to determine the possibility of blending the two systems. Of these, nine had a mean score of 4.0, three above 3.5 and two had a mean score of less than 3.5. These results indicate a high likelihood that the systems can be blended.

Key Words: performance management, quality assurance, higher education institutions, blended approach

Sommaire

Cet article propose un cadre pour promouvoir l'amélioration continue de la qualité dans l'enseignement supérieur en réunissant la gestion des performances et l'assurance qualité dans une approche unique. L'association des deux systèmes élimine les difficultés d'une approche à deux systèmes. L'étude a utilisé une méthodologie quantitative, les données étant collectées au moyen d'un questionnaire fermé administré au personnel académique et administratif de quatre établissements publics d'enseignement supérieur sélectionnés à dessein dans les quatre

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principales régions ethniques du Zimbabwe. Le questionnaire s'inspirait d'un cadre élaboré par Silimperi et al. (2002) sur les éléments essentiels au développement des systèmes d'assurance qualité. Quatorze éléments ont été utilisés pour déterminer la possibilité de combiner les deux systèmes. Parmi ces éléments, neuf ont obtenu une note moyenne de 4,0, trois une note supérieure à 3,5 et deux une note moyenne inférieure à 3,5. Ces résultats indiquent qu'il est très probable que les systèmes puissent être combinés.

Mots clés: gestion des performances, assurance qualité, établissements d'enseignement supérieur, approche mixte

Introduction

Neoliberalism and the concept of new public management (NPM) have changed higher education (HE) governance, leadership and management models, with governments the world over demanding accountability and transparency from higher education institutions (HEIs) (Marginson and Considine, 2000; Rowlands, 2012). Performance management (PM) and quality assurance (QA) have become endemic in HE management, resulting in the adoption of industry PM practices (Morley, 2003; Rowlands, 2012; Morrissey, 2015).

Armstrong (2014) defines PM as a systematic process to improve organisational performance through individuals and teams' development. It is an on-going process of identifying, measuring, and developing performance and aligning it with the organisation's strategic goals (Aguinis, 2013). It thus emphasises performance targets, measurement, indicators and reporting (Lægreid et al., 2006; Pulakos, 2014).

Quality assurance has also taken root in the global HE sector since the 1990s (Morrissey, 2015; Blackmore, 2009), and quality has become a marker of distinction in international HE markets (Blackmore 2009). Indeed, it is the primary tool used by states to govern HEIs (Morley, 2003; Filippakou and Tapper, 2008). Various quality management systems (QMS), most of which are adopted from industry, have been implemented by HEIs (Rosa, Sarrico and Amaral, 2012; Becket and Brookes, 2008; Niedermeier, 2017).

Problem statement

While QA and PM are key practices in modern HE, they are generally regarded as different constructs, with separate frameworks commonly in place. This raises the question of whether this is a useful dichotomy in institutional management. While the main purpose of a PM system is to improve organisational performance (Kiriri, 2018; Tanveer and Karim, 2019; Ghosh and Das, 2013; Rodica and Florin, 2009), Wells (2018) identified seven broad purposes of QA in HEIs. These include improved academic performance, institutional performance assessments, compliance with external standards, accountability to government and society, improved management, institutional learning and equitable resource allocation. The overlap between PM and QA is thus clear.

There is need to consider alignment of PM and QA in order to streamline institutional management. This article proposes that they be brought together in a blended approach that leverages their individual strengths, thereby optimising institutional performance and resource use and minimising duplication and redundancy. The Zimbabwean study on which it is based addressed two research questions: 'How does QA relate to PM?' and 'How can the two processes be blended?' The findings will be of interest to institutional managers and QA practitioners.

Methodology

Zimbabwe has four major regions, Mashonaland, Matebeleland, Midlands and Masvingo provinces. Data were collected in four public HEIs, one from each of these regions. The study thus employed site triangulation and, as expounded by the institutional isomorphism theory (Powell, 1983), its findings can thus be generalised to institutions that were not part of the sample.

The population comprised the 900 academic and administrative employees in the selected institutions. Lower level staff were not included because of their perceived inability to provide useful information on PM and QA in HEIs. Sekaran's sample size determination table (Sekaran, 2003) was used to calculate a sample size of 269.

A probability sampling technique, systematic sampling, was used to obtain a representative sample from the population (Ghodeswar, 2020), with every *n*th member selected (Rahman, 2022). This technique is used when data is classified into multiple subgroups (strata) based on

common characteristics such as age, gender, race, income, education, and ethnic origin (Rahman, 2022). The two major strata in a HE setting are academic and administrative staff. This technique ensures representation of all parts of the population (Pace, 2021) and offers improved population coverage since researchers have more control over the subgroups and ensure that they are included (Rahman, 2022).

Data were collected through closed-ended questionnaire items that were developed based on insights from Silimperi et al.'s (2002) framework on essential elements for developing QA systems. The framework has eight essential elements to implement and sustain QA activities, which are grouped under three categories: the internal enabling environment whose essential elements are leadership, policy, core values and resources; organising for quality with one essential element, structure; and the support function whose essential elements are capacity building, communication and information and reward (Silimperi et al., 2002). It has been successfully employed in a number Latin American and African countries to support strategic planning and direct work plans and used as a resource to determine the elements necessary to strengthen and sustain QA (Silimperi et al., 2002). While the framework was developed for health care systems, it is appropriate for HE. Furthermore, its essential elements work for both PM and QA. These elements as well as a review of related literature formed the basis to establish the similarity between PM and QA.

Several steps were taken to ensure the questionnaire's validity and reliability. The research instrument was reviewed by human resources management and QA experts and a pilot test was conducted. Cronbach's Alpha was used to measure reliability (Taber, 2018). It provides a measure of the internal consistency of a test or scale and is expressed as a number between 0 and 1 (Tavakol and Dennick, 2011). A score equal to or greater than 0.7 is accepted as a good measure of internal reliability. In the current study the variables' scores were all above 0.7, meaning that the instrument passed the reliability test.

Findings and discussion

According to Babbie and Mouton (2001), the response rate is the extent of the representation of the sample respondents. A higher response rate reduces the possibility of significant response bias. Two hundred

and sixty-nine questionnaires were initially delivered to the respondents identified by means of stratified sampling. A hundred and thirty-five usable questionnaires were collected, representing a 50% response rate. A response rate of 50% and above is considered adequate for analysis and reporting (Babbie, 2011). The low response rate can be attributed to the sensitivity of PM and QA issues in HE. This challenge was also confronted in a South African study on PM in HEIs (Mosage and Pilane, 2014).

The data were analysed using SPSS to find the means (\bar{x}) and standard deviations (σ) and derive meaning from the data. Fourteen parameters were considered in the questionnaire to compare PM and QA in HEIs (see Table 1). Nine elements had responses above a mean score of 4.0, three had responses above 3.5, and two had responses below 3.5. These results indicate strong convergence between the two management systems in HEIs.

Table 1: Elements used to compare PM and QA in HEIs (n=135)

Focal issue	Mean Score	Standard Deviation
The university uses performance indicators	3.70	0.89
PM in HEIs serves the same purpose as QA	4.09	0.46
Staff and supervisors in departments determine targets and metrics in an inclusive manner	3.96	0.51
PM activities are infused with QA dimensions at the beginning of the performance cycle	4.03	0.79
Similar tools can be used for PM and QA	4.07	0.39
Performance management should be ICT-based	4.37	0.81
Performance management involves open and effective communication	3.58	0.70
The university must embrace performance-based marketing	3.27	0.50
Supervisors act as coaches and mentors	4.00	0.38
Management interaction with staff is a powerful PM tool at the institution	4.13	0.51
Rewarding good performance is more important than penalising poor performance	4.08	0.45
PM and QA are grounded in a common set of core values	4.03	0.52
The performance agreement includes a personal development plan	3.48	0.67
The university must build a culture of performance	4.51	0.63

Universities' Use of Performance Indicators

Performance indicators are a key element used to indicate performance in a performance management system (PMS). The results ($\bar{x} = 3.70$ and $\sigma = 0.89$) show that the respondents agreed that performance indicators are used in HEIs.

Leiber (2019) asserts that performance indicators are necessary because they reflect the quality requirements of the institution, unit and programme. They also promote objective communication and operationalisation of relevant quality features (Leiber, 2019). In contrast, Kairuz et al. (2016) reflective and critical thinking are negatively affected by unrealistic demands and stress. The purpose of this paper is to argue that key performance indicators (KPIs) argue that performance indicators and PM cause undue stress and competition among academics and are therefore not suited to the HE sector. Enserink (2009) also notes that increasing use of such metrics has meant that academics are regarded as a number rather than a person. Seung (2012, p. 7) describes this as a "reductionist and dehumanising" phenomenon.

Nonetheless, PM and QA have become features of HEIs. Some form of measurement will always be necessary to determine success and failure. Despite the critiques levelled at them, performance indicators should be a component of a PMS in HE as they reveal the qualitative and quantitative dimensions of performance and facilitate the design of a blended PM framework. Furthermore, they facilitate monitoring, assessment and evaluation of performance. Without performance indicators it would be difficult if not impossible to measure the performance of individuals, teams and the institution at large. Performance data in the form of performance indicators is required for the purposes of internal and external QA that is used for institutional audits, evaluations and accreditations.

Performance Management in HEIs Serves the Same Purpose as QA

Purpose was one of the key elements used in this study to measure the convergence of PM and QA. The results ($\bar{x} = 4.09$ and $\sigma = 0.46$) suggest agreement with the statement that they serve the same purpose.

The results are in line with Silimperi (2002) for whom a policy framework is essential in developing a QA system as it outlines the purpose of a management system. Five-year strategic plans acted as

policy documents for PM while the QA policy was used as a reference for QA. Therefore, they provide a policy framework that guides performance in HEIs. The QA policies clearly stated that the purpose of QA in HEIs was to promote performance improvement, while the five-year strategic plans noted that PM's main goal is continuous performance improvement. The existence of these documents demonstrates that leadership is committed to continuous performance improvement. They are the tools used by leadership to set out the organisation's vision and outline strategies for the transition from "the way we work now" to "the way we want to work in the future" as well as "to model the desired core values that should characterize the organisational culture" (Silimperi et al., 2002).

Kettunen (2015) notes that Finland's funding system requires that HEIs adopt strategic plans that cascade from central government to university level (Kettunen, 2015). Numerous studies have concluded that the main purpose of a PM system is to improve the quality of organisational performance (Kiriri, 2018; Tanveer and Karim, 2019; Ghosh and Das, 2012; Rodica and Florin, 2009). Wells (2018) states the purpose of QA in HEIs is to improve academic performance, promote institutional performance assessment, compliance with external standards and accountability to government and society, improve management, and enhance institutional learning and equitable resource allocation.

An institution's PM and QA systems should be well documented so that all stakeholders are aware of what is expected of them. It is through such documentation that the two management systems communicate. As such, HEIs should strive to formulate strong policy documents that guide implementation of the two systems with the common purpose of continuous improvement.

Staff and Supervisors in Departments Determine Targets and Metrics in an Inclusive Manner

Inclusivity in determining and setting performance targets and metrics in HEIs' PM and QA systems is a sign of participation which is healthy for the organisation. The result ($\bar{x} = 3.96$ and $\sigma = 0.51$) suggests agreement with the statement that staff and supervisors should determine the targets in an inclusive manner.

Employee participation and engagement are one of the elements of a total quality management (TQM) system and other quality management systems. Employees need to have the necessary skills to participate and engage meaningfully in target setting. Silimperi et al. (2002) thus note the need for capacity building programmes, a strong policy framework and well-developed values and value systems in developing institutional QA systems. Without proper training, employees cannot participate meaningfully in institutional management systems. They also need to understand the organisation's values and value system.

Hanaysha (2016) noted that in rapidly changing markets, business leaders recognise that highly engaged employees can increase their productivity and firm performance. Lunenburg (2011) observed that employee participation is an effective method of gaining acceptance. A lack of inclusivity might result in some rejecting imposed goals, leading to institutional failure. Furthermore, when goals are set collectively, they tend to be more reasonable and achievable. Wegge and Haslam (2005) concur and observe that group goals promote the achievement of institutional goals. These views are in line with the Stewardship Theory which asserts that practices such as employee involvement and participation enhance productivity (Hernandez, 2012; Segal and Lehrer, 2012).

Managers in HEIs should thus develop their employees on an ongoing basis so that they are able to participate effectively in institutional management. Engaged employees feel empowered and are passionate about their work, making them creative and innovative as they contribute to the attainment of the institution's vision and mission. Participation in target setting ensures that they aim to achieve the set goals.

PM Activities are Infused with QA Dimensions at the Beginning of the Performance Cycle

Excellent performance is synonymous with quality performance. Performance in HE is infused with qualitative performance dimensions. The results ($\bar{x} = 3.87$ and $\sigma = 0.79$) suggest agreement with the statement that PM activities can be infused with QA dimensions.

These results are in line with Divjak and Redep's (2015) study on strategic decision making in HE. The Deming quality improvement cycle (Plan-Do-Check-Act (PDCA)) starts with a plan which involves de-

termination of the mission, vision and strategy, as well as establishing objectives (Divjak and Redep, 2015). This is an indication that, even at this stage, QA elements are infused in the performance cycle.

Armstrong (2006) noted that key activities in the planning stage of the PM cycle should be in line with set objectives and targets (both quantitative and qualitative). Similarly, Noh (2021) advises that the planning stage of the performance cycle should ensure that activities have a defined quality standard. Given that the two management systems commence with similar activities at the beginning of the performance year, the same should occur throughout the year as employees endeavour to accomplish both quantitative and qualitative targets (Noh, 2021). A number of studies have demonstrated a positive relationship between PM and QA (Leiber, 2019; Prisacaru and Litvin, 2017; Nadeau, 2017; Igbojekwe et al., 2015; Kettunen, 2015; Adina-Petruța and Roxana, 2014; Morris et al., 2007). Prisacaru and Litvin's (2017, p. 443) study on quality management in HEIs in the Republic of Moldova noted that the "Performance management system of a higher education institution is created and operates on the basis of quality management system by extending the area of quality objectives to the level at which they will express performance." Kettunen (2015) is of the view that various management approaches can be integrated in HEIs to improve institutional performance. A review of documented experiences from 2000 to 2016 found that institutions that based their PMS on the Lean Six Sigma improved their administrative efficiency and the quality of education received by their students (Nadeau, 2017).

However, Decramer et al.'s (2008) study at a Flemish HEI observed that objectives or targets were not formally captured by the PMS. This meant that neither qualitative nor quantitative dimensions of performance targets were set. It renders it difficult to objectively measure performance at the end of the performance cycle.

It is good practice in PM to set both qualitative and quantitative targets at the beginning of the performance cycle as this enables objective periodic performance reviews and performance evaluation at the end of the cycle. It encourages employees to perform to the best of their ability and to come up with the necessary strategies and resources to achieve the set targets. In turn, this enables the purpose of both PM and QA to be fulfilled. It is thus feasible to blend the two management systems

because they can work in their different management structures without short changing each other with the overall aim of improving individual and organisational performance.

Similar Tools Can be Used for PM and QA in HEIs

The study's results ($\bar{x} = 4.07$ and $\sigma = 0.39$) point to agreement that similar tools can be used for PM and QA systems.

The results are similar to those reported in extant literature. Spangenberg (1994) noted that PMS consists of four stages (planning, managing, reviewing, rewarding). On the other hand, QA is largely based on the Deming quality cycle (PDCA) (Alauddin and Yamada, 2019). It is possible that the PM cycle and the QA cycle can be superimposed and work as one cycle for continuous performance and quality improvement. A number of scholars have supported the use of the Balanced Score Card (BSC) (Wahid, 2019), Lean Six Sigma (LSS) (Lu et al., 2017; Montgomery, 2017; Svenson et al., 2015), and 360-degree appraisal (Banda, 2012) for both management systems. Furthermore, Cappelli and Tavis (2016), Desmet and Gagnon (2018) Qureshi and Abro (2016) and Krenkel (2012) note that both PM and QA systems can be implemented using bespoke Information and Communications Technology (ICT) tools.

The continuous improvement cycle (PDCA) proposed by Deming and the PM cycle supported by Armstrong (2014) and Spangenberg (1994) can be superimposed and work as one. The use of ICT facilitates the blending of the two systems, at the same time benefiting the organisation in terms of agility through instant feedback for continuous improvement. It further strengthens the nexus between the two systems. As the tools work to fulfil the needs of one system, the needs of the other can also be fulfilled. The use of similar tools thus leverages the development of a framework to blend PM and QA in HEIs.

Performance Management and Quality Assurance Should be ICT-Based

ICT is an essential element in the design of a PMS in HE. The results show a strong need for ICT in the design of PMSs in HEIs ($\bar{x} = 4.37$ and $\sigma = 0.81$).

This is in line with Silimperi et al. (2002), who noted that resources are an essential element in building a QA system. Availability and readiness for the use of ICT are dependent on the availability of other resources

like funding, knowledgeable personnel, and supportive leadership, among others. A management system cannot be sustained if it lacks adequate resources such as capacity building, communication, and other key support functions (Silimperi et al., 2002). These observations are in line with modern organisational trends and extant literature. Kairuz et al. (2016) also observed that usage of ICT for administrative purposes improves HEIs' efficiency and effectiveness. Bazigos et al. (2014) note that ICT is a strong predictor of organisational health and performance as it offers speed and stability, thereby providing organisational agility. Adina-Petruța and Roxana (2014) state that ICT can be used to improve policy formulation and execution and that it is a catalyst for innovation, quality and excellence. Cappelli and Tavis (2016) highlighted that ICT in HE provides an effective way of managing performance and reinforcing desired behaviours through giving employees instant feedback (Cappelli and Tavis, 2016). It also assists in determining the nature of the adjustments required to enhance performance (Lunnenburg, 2011). Rasappan (2010) and Madhekeni (2012) observe that a management information system provides data for monitoring and evaluation at all levels to assist managers in making effective, timely decisions. Ali and Mahfod's (2015) research on PMS in HEIs in Bahrain found that regular informal feedback via ICT was more effective than that provided annually in a more formal manner.

However, the use of ICT in HE PM has been associated with stress and burnout among academics, particularly those of mature age (Voakes et al., 2003). Nonetheless, it is crucial for HEIs to use it to reap the maximum benefits. Among other things, it can be used for self-assessment, programme assessment, online evaluation of teaching and learning, rating, and obtaining feedback from students and peers.

Performance Management Requires Open and Effective Communication

The results ($\bar{x} = 3.58$ and $\sigma = 0.70$) point to general agreement with the statement that PM requires open and effective communication.

Silimperi et al. (2002) argue that communication is an essential element in building a QA system. Prisacaru and Litivin (2017) also noted that open and effective lines of communication are a common building block for PM and QA systems. Allui and Sahni (2016) found that strategic human resources management practices such as communication

significantly improved teaching and learning processes at Chicago Universities. The organisational culture improved as management communicated more effectively with employees (Allui and Sahni, 2016).

According to the Goal Setting Theory, effective teams share knowledge and information (Locke and Latham, 2007, 2019). Franco-Santos and Doherty (2017) posit that two-way communication enhances motivation and facilitates achievement of an organisation's mission. Similar observations were made by Kok and McDonald (2017) in a study of five HEIs in the UK. They found that the top-ranked departments reported more frequent communication with their management as formal, structured channels of communication were in place (Kok and McDonald, 2017). In those that were ranked low, communication was less frequent and more informal, and the communication channels were not transparent (Kok and McDonald, 2017). Adherence to old-fashioned top-down communication not only undermined professional autonomy, but also led to "over-managed institutionalised mistrust" (Deem et al., 2007, p. 190).

Information is the life blood of an organisation and communication channels are the veins that ensure that no part of it is starved of information. Therefore, HEIs should establish open, effective channels of communication with two-way interaction between organisational staff, target communities and other stakeholders. This enables achievements and successful strategies to be shared, boosting organisational performance.

The University Must Embrace Performance-Based Marketing

In the highly competitive HE landscape, performance is one way for HEIs to market themselves. The results ($\bar{x} = 3.27$ and $\sigma = 0.50$) suggest a neutral position on the statement that universities must embrace performance-based marketing.

Judson and Taylor (2014) observed that, in the face of increasing competition for students, more HEIs are adopting aggressive marketing strategies. However, Helgesen and Helgesen (2008) noted that this requires that managers are familiar with the processes that deliver value to students. This implies that HEIs should embrace performance-based marketing strategies. Hattie (1990) and Soutar and McNeil (1996) cited by Abdullah (2006) observed that the performance indicators used

in such institutions tend to be measures of activity, rather than true measures of the quality of educational services. As such, they do not comprehensively measure the quality of education (Abdullah, 2006). A survey conducted by Owlia and Aspinwall (1997) found that students were ranked as the most important HE customers; thus, student experiences should inform performance based marketing strategies (Owlia and Aspinwall, 1997). This is logical as quality is sometimes described as meeting customer expectations. In the quest to develop performance-based marketing, HEIs should put customers at the centre and thus prioritise performance indicators to do with students. Furthermore, this is a sound way to blend PM and QA.

Supervisors Act as Coaches and Mentors

Both PM and QA systems are based on the principle of continuous improvement that entails that staff members learn whenever an opportunity arises. As such, supervisors have a responsibility to coach and mentor their staff. The study's results ($\bar{x} = 4.00$ and $\sigma = 0.38$) reveal agreement with the statement that supervisors act as coaches and mentors.

Silimperi et al. (2002) recommended an on-going process to ensure that staff have the necessary technical skills to carry out PM responsibilities. Supervisors should consciously build employees' capacity so that they keep up with the demands and expansion of PM and QA (Silimperi et al., 2002). Vandenberghe (2016) posits that supervisors as mentors can shape employees' tasks and job conditions, enhance commitment and encourage perceptions of job enrichment among employees, all of which foster employee retention. This is a theme in the Social Exchange Theory. Mentoring and coaching make employees feel supported (Cook and Rice, 2006) and they are likely to reciprocate through commitment to the organisation. In support of the Social Exchange Theory, Dawley et al. (2007) point out that supervisors act as agents of the organisation and have direct responsibility for directing, evaluating and supporting their subordinates. Though daily interactions with subordinates and direct control over work assignments, they are well-placed to act as mentors (Scandura and Williams, 2004). The Organisational Support Theory suggests that agents' (supervisors) actions are indicators of the organisation's intent (Levinson, 1965). They should intentionally drive

the organisation to where it is supposed to go in terms of performance; that is, meeting qualitative and quantitative targets. They also have the task of imparting PM and QA skills to employees.

Management Interaction with Staff is a Powerful Performance Management Tool

It is crucial for management to interact with staff on a regular basis in order for the system to remain healthy and organisations should establish mechanisms to facilitate such. The results show that the respondents held strong views in this regard ($\bar{x} = 4.13$ and $\sigma = 0.51$).

The results are similar to those of Cappelli and Tavis (2016) who noted that firms across the world are replacing annual reviews with frequent, informal check-ins between managers and employees. Such interaction has become important in successfully running organisations. Regular conversations between supervisors and subordinates to discuss performance and development enable an organisation to remain competitive; indeed, 70% of multinational companies are moving towards this model (Cappelli and Tavis, 2016). De Smet and Gagnon (2018) concur and state that, as organisations become more agile, they are using ICT to improve management and staff interaction. Alonderiene and Majauskaite (2016) asserted that effective leadership in HEIs sets the future direction, communicates it to staff, and creates a positive organisational climate by involving staff in key decision making and providing feedback on performance. Lu et al. (2017) described management interaction with staff as one of the most important characteristics of Lean Six Sigma leadership in HEIs.

Organisations have traditionally held periodic performance reviews with subordinates to discuss their work. The drawback is that performance deficiencies take time to be rectified. Technology can be harnessed to revolutionise PM by enabling frequent interaction between management and staff so that they learn from each other on a daily basis, facilitating continuous improvement.

Rewarding Good Performance is More Important than Penalising Poor Performance

Rewarding staff for good performance is more beneficial than penalising them for poor performance because rewards are a powerful motivating

factor. The results show that the respondents agreed with this statement ($\bar{x} = 4.08$ and $\sigma = 0.45$).

Silimperi et al. (2002) noted that reward is one of the building blocks of a QA system. Rewarding performance and efforts made to improve quality foster both commitment to improve performance and motivation to strive for excellence (Silimperi et al., 2002). Recognition or rewards reinforce interest in performance improvement endeavours and encourage staff to support organisational values (Silimperi et al., 2002). Turk (2008) contends that linking rewards to the accomplishment of strategic goals makes for an effective compensation system. These observations are in line with the Reinforcement Theory which postulates that behaviour is shaped by controlling the consequences of employee behaviour (Skinner, 1938; Krishnan and Amuthan, n.d.). Rewards are used to reinforce desired behaviour, with penalties preventing undesired behaviour (Skinner, 1938; Krishnan and Amuthan, n.d.). However, Morrish and Sauntson (2016) observed that the penalties used at Imperial College and the University of Birmingham disempowered and humiliated academics. They can be regarded as crude PM, particularly with regard to the threat they pose to academic freedom, genuine academic productivity and knowledge advancement (Morrish and Sauntson, 2016). The notion that rewarding performance is more effective than penalising poor performance is also aligned with the Stewardship Theory that posits that when employees are considered as stewards, there is no misalignment between their interests and those of the organisation (Franco-Santos and Doherty, 2017). Stewardship research advocates for practices such as high levels of employee involvement and participation, provision of the necessary resources for performance enhancement, two-way communication, opportunities for learning and development and most importantly, fair and valuable rewards to enhance motivation and facilitate fulfilment of the organisational mission.

PM and QA are Grounded in a Common Set of Core Values

Core values were one of the key elements used in this study to measure the convergence of PM and QA. The findings demonstrate strong staff perceptions on the convergence of these management systems ($\bar{x} = 4.03$ and $\sigma = 0.57$).

Numerous scholars agree that the two management systems are

based on the same core values which are management commitment, continuous improvement, a customer focus, employee involvement and participation, training and learning, rewards and recognition, and management by facts (Niyivuga et al., 2019, Zwain et al., 2017; Psomas and Antony, 2017; Prisacaru and Litvin, 2017; Igbojekwe et al., 2015).

Examples of QA and PM systems that have the same core values include the BSC, Total Quality Management, ISO standards and LSS (Lu et al., 2017; Kim-soon et al., 2014). Higher education institutions should therefore strive to develop similar sets of core values for PM and QA so as to facilitate the nexus between the two.

Performance Management Includes a Personal Development Plan

A PMS seeks to develop individual employees through training and development in skills identified by performance deficiencies during the cycle. Personal development plans are thus a feature of a PMS. The results ($\bar{x} = 3.48$ and $\sigma = 0.67$) suggest agreement with this assertion.

This finding is in line with Silimperi et al.'s (2002) assertion that capacity building is one of the essential elements of a QA system. It encompasses formal training, coaching, mentoring, self and peer appraisal, performance improvement, and QA, among other performance and quality improvement activities (Silimperi et al., 2002). Otoo and Mishra's (2018) study on the impact of human resource development practices on employee performance in small and medium scale enterprises observed that career development involves an organised, formalised, planned effort to train employees so as to achieve a balance between the individual's career needs and the organisation's workforce requirements (Otoo and Mishra, 2018). The study indicates that comprehensive PM should include both personal and organisational development (Otoo and Mishra, 2018). Decramer et al. (2008) found that Flemish HEIs' PMS was not very effective in improving individual and institutional performance because personal development plans were not formally captured. Harvey and Green (1983) cited by Allui and Sahni (2016) defined strategic human resources development as identifying and developing employees in conjunction with the development of corporate and business strategies for the future. Such initiatives can be used to facilitate the development of a blended PM framework in HE.

The University Must Build a Culture of Performance

The respondents showed strong agreement ($\bar{x} = 4.51$ and $\sigma = 0.63$) with the statement that universities need to build a strong culture of performance.

This result is in line with Bititci et al. (2004) who argue that the introduction of a PMS in HEIs can transform employee values, attitudes and behaviours, thus leading to eventual change in the organisational culture. Shields (2008) also contends that PM can be used as a tool to transform people's values and form a new culture. Allui and Sahni (2016) found that strategic human resources management practices like PM play a crucial role in building a culture of performance in HEIs in Saudi Arabia. In seeking to change the organisational culture, it is important to involve employees. Bontis (1996) highlighted that human capital may be an organisation's only sustainable competitive advantage in the ever changing world. Indeed, Sarwar et al. (2021) concluded that it has become more important than new technologies or financial and/or material resources. The Resource Based View theory (Wernerfelt, 1994; Barney et al., 2001) holds that sustainable competitive advantage is based on the competitiveness of firm-specific resources that have the following attributes: valuable, rare, inimitable and non-substitutable (VRIN) (Lockett and Thompson, 2009). If properly trained, human resources can drive the organisation towards excellence.

A PMS backed by strong QA elements starts from the individual and build upwards to inculcate a performance culture. A culture of excellence is thus a way of blending PM and QA through the VRIN attributes in employees.

The study's results and the literature review highlight the PM-QA nexus. This suggests the need for a framework to systemically blend these systems. The thesis is that PM should mainstream QA dimensions, and the two functions can be implemented in conjunction.

Partelow (2023) describes a framework as a supporting structure around which something can be built; a system of rules, ideas or beliefs that is used to plan or decide something. Binder et al. (2013) note that a framework provides a set of assumptions, concepts, ideas and practices. The main issue is plurality and connectivity. McGinnis and Osrom (2014) define a framework as the basic vocabulary of concepts and terms that can be used to construct the kind of causal explanations expected of a theory.

A system generally has inputs, processes, outputs and feedback and these are features of PM and QA. The study's results revealed elements that can be used to blend PM and QA in HEIs. These are modelled around Silimperi et al.'s (2002) framework which uses eight elements. The elements in Table 2 constitute a systematic framework to blend PM and QA.

Table 2: Elements to be considered in blending PM and QA

Elements in Silimperi et al.'s (2002) framework	Elements considered in this study	Significance*
Policy	Use of performance indicators	Moderate
	Inclusive determination of targets	Moderate
	Purpose of QA and PM	High
	Strategic plans and QA/PM policies	High
Structure and leadership	Supervisors as coaches and mentors	High
	Management involvement	High
Core values	Common set of core values	High
Resources	Use of ICT tools	High
	Similar tools for PM and QA	High
Capacity building	Personal development plan	Moderate
	Culture of performance	High
Communication pathways	Open and effective communication	Moderate
	Performance-based marketing	Low
Reward	Rewarding good performance	High

*is based on the study's results. \bar{x} scores greater than 4 were considered of high significance, above 3.5 but less than 4, moderate and below 3.5, low.

Proposed framework

The elements constitute building blocks upon which QA and PM can find convergence. Systemic blending refers to separate structures but one system. The framework is based on the 14 elements arising from the results. The statements in the third column in Table 3 below start with an action verb to direct action toward the intended result. This renders the framework action and results-oriented. The elements are grouped into eight parameters derived from Silimperi et al.'s (2002) framework. It should be noted that structure and leadership are combined due to

their overlapping functions.

Table 3: Proposed framework for systemic blending of PM and QA

Parameter	Element	Strategy
Policy	Use of performance indicators	Ensure each policy embraces the affordances of the other
	Inclusive determination of targets	Implement policies through an ICT platform
	Purpose of QA and PM	Have separate PM and QA policies
	Strategic plans and QA/PM policies	Implement policies conjunctively via Deming's PDCA continuous improvement cycle
Structure and leadership	Supervisors as coaches and mentors	Have separate PM and QA structure
	Management involvement	Provide leadership support for both PM and QA Provide a Vision and Mission that support PM and QA
Core values	Common set of core values	Provide a common set of core values for PM and QA Promote core values that emphasise quality performance Provide common KPIs for PM and QA
Resources	Use of ICT resources	Implement both policies using similar resources i.e., human, financial, equipment, etc.
	Similar tools for PM and QA	Implement both policies employing similar tools
Capacity building	Personal development plan	Develop both PM and QA competencies
	Culture of performance	Develop a culture of performance for both PM and QA
Communication pathways	Open and effective communication	Develop common functional communication pathways for PM and QA Develop a feedback mechanism for both systems
	Performance-based marketing	Emphasise performance-based marketing
Reward	Rewarding good performance	Provide incentives for the attainment of desired performance and quality standards

Conclusion

The study's findings suggest that PM and QA can be blended in HEIs to come up with an integrated PM approach. This can be achieved by infusing QA activities into PM activities, particularly at the beginning of the performance cycle. Performance management and QA systems can be built using similar elements which are policy, structure and leadership, core values, resources, capacity building, communication pathways and the reward system. The major benefit is synergy which will come about as a result of combined resources in the form of person power, finance, ICT and several others. The use of ICT is crucial to provide the much needed agility and make it possible to tailor make the system for a particular institution. Performance management and QA activities can be carried out on a single ICT platform in an HEI. Therefore, simultaneous implementation of PM and QA is eminently possible. It is made possible by formulating annual performance plans with measurable key performance indicators related to quality and targets. These indicators have elements of both PM and QA, creating a framework that promotes continuous performance improvement.

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Leaders' Experiences of Integrated Leadership Development in Higher Education: Kolb's Experiential Learning Theory and the 70:20:10 Model

Edinam Bernice Amenumey and Yaw Agyeman Badu

Abstract

This article examines the perceptions of leaders of a public university in Ghana on how leader and leadership development perspectives are reflected in the institution's leadership development (LD) practices. While there is an extensive body of literature on LD, further research is required on how leader and leadership development perspectives can be integrated. The study examined the applicability of the 70:20:10 model to leaders' LD experiences and blended this model with Kolb's experiential learning theory. A qualitative case study research approach was employed to explore the experiences of the institution's leaders. Data were gathered using semi-structured interviews, document review and observation of a training session. The data were analysed using the thematic perspective of narrative analysis. The study found that the concepts in the 70:20:10 model, namely (1) on-the-job task performance (2) relationships in the workplace, and (3) training formed the basis of formal and informal sources of learning that propelled leaders in their development journeys. However, the university did not leverage these to consciously integrate the perspectives of leader and leadership development. It is thus recommended that LD should be consciously planned to ensure holistic learning from the three sources in the university setting.

Key words: leader development, leadership development, experiential learning, higher education

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Sommaire

Cet article examine les perceptions des dirigeants d'une université publique au Ghana sur la manière dont les perspectives de développement du leadership et des dirigeants se reflètent dans les pratiques de développement du leadership (DL) de l'institution. Bien qu'il existe une abondante littérature sur le développement du leadership, il est nécessaire de poursuivre les recherches sur la manière dont les perspectives de développement du leadership et des dirigeants peuvent être intégrées. L'étude a examiné l'applicabilité du modèle 70:20:10 aux expériences de développement du leadership des dirigeants et a combiné ce modèle avec la théorie de l'apprentissage expérientiel de Kolb. Une approche qualitative de recherche par étude de cas a été utilisée pour explorer les expériences des dirigeants de l'institution. Les données ont été recueillies au moyen d'entretiens semi-structurés, de l'examen de documents et de l'observation d'une session de formation. Les données ont été analysées en utilisant la perspective thématique de l'analyse narrative. L'étude a révélé que les concepts du modèle 70:20:10, à savoir (1) l'exécution des tâches sur le lieu de travail (2) les relations sur le lieu de travail et (3) la formation, constituaient la base des sources d'apprentissage formelles et informelles qui ont propulsé les dirigeants dans leur parcours de développement. Toutefois, l'université n'a pas exploité ces sources pour intégrer consciemment les perspectives du leadership et de son développement. Il est donc recommandé de planifier consciemment le développement du leadership afin de garantir un apprentissage holistique à partir des trois sources dans le cadre universitaire.

Mots clés: développement des dirigeants, développement du leadership, apprentissage par l'expérience, enseignement supérieur

Introduction

The challenges confronting higher education institutions make it imperative to develop leaders who are well-equipped to solve problems (Balman and Gallos, 2011; Buller, 2012; Gemlich and Buller, 2015; Gigliothi and Ruben, 2017). In the contemporary world of academia, leadership has to contend with dwindling government support for universities, conflicting opinions on the role of universities, changing trends in

the delivery and acquisition of knowledge as a result of advances in technology, and rapidly shifting and conflicting world economies. These issues have been brought about by globalisation, internationalisation and neoliberalism. Roland Robertson in Steger (2017) defined globalisation as "a concept [that] refers both to the compression of the world and the intensification of consciousness of the world as a whole" (Steger, 2017, p. 15). This suggests that globalisation makes the world a smaller place. Altbach and Reisberg (2013) highlighted globalisation's implications for higher education. They note that globalisation raised issues relating to the flow of technology and the economy, people, values and ideas across borders. Student and staff mobility has also progressed to non-physical virtual mobility (Creelman and Lowe, 2019). Seale (2019) noted that the higher education environment had changed over the past 20 years, with implications for the leadership and governance of higher education institutions. He described the contemporary university as "a postmodern, neo-liberal, competitive, boundary-less knowledge conglomerate, a far cry from its historical, traditional, classical and collegial roots" (Seale, 2019, p. 1). Seale (2019) added that African higher education is in transition and is grappling with major challenges arising from global issues and local imperatives. Neoliberal assumptions have shifted public policy from a social welfare focus to privatisation and profit making. They have also influenced the higher education sector to consider students as clients and to compete for market share and revenue (Mintz, 2021). The result is dwindling government spending on higher education and pressure on universities to raise funds. The need for leaders with the requisite skills to achieve this has therefore become paramount.

According to De Wit (2020), internationalisation traditionally emphasised exchange co-operation and the need to understand different cultures and their languages. However, a gradual shift has occurred towards competitive internationalisation and issues related to world university ranking. For instance, the university under study received a good ranking by a top international ranking body. This had implications for its leadership as more vigorous efforts were made to ensure that leaders throughout the university worked hard to enable it to maintain its position and achieve even greater heights. The global dynamics of university administration, therefore, imply the need to ensure that

leaders have the right skills and expertise to achieve their institutions' vision. Resources thus need to be devoted to leadership development research and practice.

However, Dopson et al. (2019) identify a lack of research on leadership development across changing global university settings. For example, Zulfqar, Valcke, Quraishi, and Devos' (2021) study in Pakistan noted that leadership development is not considered a core component of higher education policies, especially in developing countries. Aye (2014) and Ruben, De Lisi and Gigliotti (2017) stated that academic leaders are appointed to leadership positions without prior or adequate preparation; this is attributed to the lack of policies in this regard. Dopson et al. (2019) also observed that the few studies on leadership development in higher education lack strong theoretical underpinning. In seeking to address this gap, Zulfqar et al. (2021) implemented a leadership development intervention to promote awareness of the adoption of six transformational leadership behaviours among university heads and deans in Pakistan.

Problem Statement

The leadership development literature has tended to favour a collective rather than an individual approach (O'Toole, 2001). Day (2001), who is one of the most well-cited and respected leadership scholars, proposes two perspectives of leadership development. The leader development perspective is centred on the individual, while the leadership development perspective focuses on developing employees across the organisation and involves collaborative use of structures and networks. He described the leader perspective as human capital development and the leadership perspective as social capital development. Day (2001) added that while most scholars consider the leadership perspective more desirable, organisations should combine the two to achieve effective leadership development, which this study refers to as the integrated approach. However, no research has been conducted on how to integrate these perspectives. Ten years after Day's (2001) proposal, Day and Sin's (2011) work points to a dearth of research on a theory of leadership development. There is thus a need for empirical research that is theoretically grounded on this issue, especially in the higher education sector (Wahat et al., 2013) given its volatile, uncertain, complex and ambiguous (VUCA) nature.

It is against this background that this study adopted Kolb's (1984) experiential learning theory (ELT) and McCall et al.'s (1988) 70:20:10 model as a theoretical foundation to explore the integrated approach to leadership development at a selected university. A third theory, the authentic leadership theory (Avolio and Gardner, 2005) informed the choice of its leaders as the study population. Kolb's (1984) theory posits that people learn from their experiences and this impacts their actions. McCall et al.'s (1988) 70:20:10 model suggests that in the work environment, people learn from experiences from three sources – learning resulting from performing their set tasks or roles; learning resulting from the individual's relationships in the work setting (referred to as informal learning); and learning from training (formal learning). Thus, the leaders were asked to share their perceptions of the role that experiences from these three sources played in their development as leaders. Furthermore, based on the responses, the leader and leadership perspectives that featured in their development were identified.

Four empirical works helped to focus the study – Hoba, Mba and Alemneh's (2013) research commissioned by the Association of African Universities (AAU) and studies by Wahat et al. (2013), McDermott, Kidney and Flood (2011) and Dahlvig and Longman (2014). The study sought to fill the gap regarding the dearth of theory in Hoba et al. (2013). It also aimed to address Wahat et al.'s (2013) narrow focus on informal learning by investigating experiential learning from both formal and informal learning perspectives. Furthermore, in response to the fact that Dahlvig and Longman (2014) focused only on women, both males and females were asked to share their views on the sources of learning experiences, whether formal or informal. Lastly, the university selected for the study is one of the oldest public universities in Ghana. Given that it was not part of the AAU's study (Hoba et al., 2013) that covered 33 institutions in Africa, of which four were in Ghana, it allows for comparison of the results.

The main issues addressed were how higher education institutions have approached leader and leadership development, how they integrate the two perspectives and how leaders' experiences impacted their development.

The objectives were to:

- Examine leaders' perceptions of formal and informal learning experiences' contribution to their development as leaders.

- Determine how perspectives of leader and leadership development influenced the development of the leaders in the university under study.

Based on these objectives, the research questions were:

1. What are leaders' perceptions of formal and informal learning experiences' contribution to their development as leaders?
2. How does the university in question approach integration of the perspectives of leader and leadership development?

Theoretical Framework

Experiential Learning Theory

The ELT suggests that people's experiences in an organisation contribute to their development in the entity. It involves two phenomena, experience and action, emanating from four stages known as the learning cycle. The first is the *concrete experience* which is an individual's experience in the work setting. Kolb (1984) posits that as a result of concrete experience, he/she observes what goes on around him/her and reflects on these observations – *reflective observation*. The individual then engages in *abstract conceptualisation* based on observations, which leads to *active experimentation* based on the knowledge gained. In turn, active experimentation results in other concrete experiences and further learning opportunities. Thus, in a higher education setting, individuals' experiences at work, and their resulting action at the time or in the future are informed by their experiences, which help them to 'grow' as leaders. The study, therefore, harnessed the 70:20:10 model to examine whether the participants' experiences impacted their development as leaders.

The 70:20:10 Model

The 70:20:10 model by McCall et al. (1988, cited in McCall, 2004) argues that there are three learning sources in the workplace – *task performance, relationships* and *training*. It thus describes how people learn at work (Scott and Ferguson, 2016). The model suggests that people obtain about 70% of their learning experiences through challenging task performance or on-the-job experiences; 20% through relationships with others at the workplace, networking, working in groups or providing feedback; and only 10% through the training received at short courses,

workshops or formal education on or offsite. While our study did not focus on the ratios, it aimed to determine if these sources of learning were evident in the participants' leadership development journey and could thus be enhanced for leader and leadership development. Although the legitimacy of the model's ratios has been critiqued, Scott and Ferguson (2016) are of the view that it remains relevant to leadership development in organisations. Blackman, Moscardo and Gray (2016) advocated for further research into the three learning sources and suggested that more should be done to integrate them rather than considering them as distinct. The current study combined the ELT and the 70:20:10 model to examine whether higher education leaders' learning development should emanate from their experiences in performing job assignments, their relationships with others in the workplace through networking, mentoring, and feedback (informal learning sources) and the training courses they attend (formal learning sources).

According to Manuti et al. (2015), planned formal learning activities in the workplace help individual employees to gain knowledge, awareness and skills in specific areas to enable them to perform their work. In relation to informal learning, Milligan, Littlejohn and Margaryan (2014, p. 1) stated that "in the workplace, an individual develops trusted networks of current and former colleagues that provide access to the knowledge and expertise necessary to perform their role". Incorporating formal and informal sources will therefore enable the integration of leader and leadership development through the relevant structures (see Figure 1).

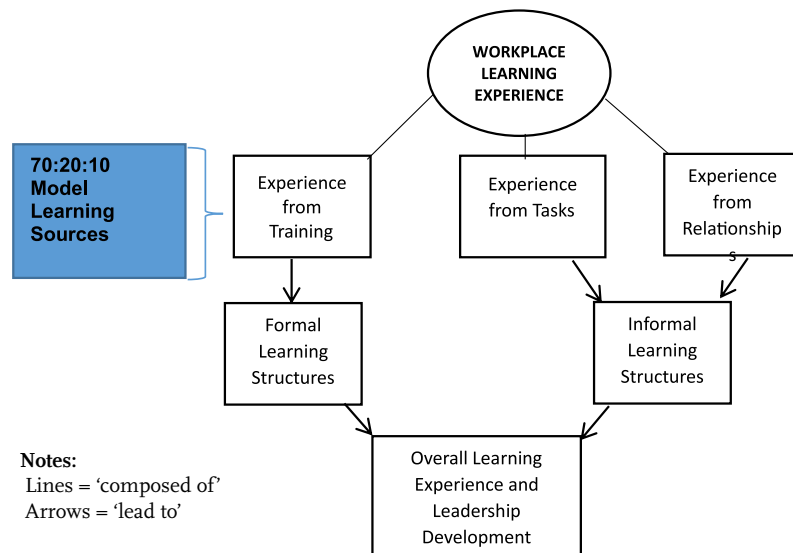


Figure 1: The Relationship between Formal and Informal Learning Experience and Structures in Leadership Development

In Figure 1, workplace learning comprises three sources: experiences of learning from task performance, and learning from relationships with stakeholders in the work setting, which are informal sources of learning, as well as from training, a formal source of learning. The structures put in place to ensure formal and informal learning should combine to provide both leader and leadership development.

Authentic Leadership

Authentic leadership has three perspectives: intrapersonal, interpersonal and developmental (Cairns-Lee, 2015). Intrapersonal refers to the individual's self-awareness of his/her ability and motivation to lead, the interpersonal perspective posits that leadership is about a leader and followers and that leaders do not lead in a vacuum, and the developmental perspective suggests that authentic leadership can be developed. Thus, an individual can learn to become an authentic leader if he/she is so motivated. Eigel and Kuhnert (2005) cited in Cairns-Lee (2015) suggest that people within higher levels of leadership have higher authentic leadership skills or behaviour. Thus, in order to access

the rich experiences of leaders who would provide in-depth information, participants higher up the leadership ladder in the university were selected.

Methodology

The study adopted an interpretive research paradigm based on constructivist philosophy and employed an exploratory research design and a qualitative method. Qualitative research is described as "an approach for exploring and understanding the meaning individuals or groups ascribe to a social or human problem" (Creswell, 2014, p. 32). Merriam and Tisdell (2016) noted that it aims to reveal the meaning ascribed to an occurrence by those who are involved in it. Given that the study aimed to gain insight into the study topic through the experiences of the participants themselves, this was an appropriate methodology.

According to Yin (2013), a descriptive case study aims to describe a phenomenon within the context in which it occurred. In this study, the case was a university, which is bounded in its setting or context. This study is a single instrumental case study because it focuses on a single issue, leadership development, in a bounded system, the university in question. Consequently, a single instrumental case study was suitable.

According to Ayee (2014), a leader at a higher level of responsibility should have higher leadership experience to train those at a lower level. For this reason, and based on the issues raised in relation to leaders higher up the ladder being more highly-motivated, the study targeted top leaders who had experience in leadership in an academic environment in one or another capacity over a period of ten years. The population was 39 leaders comprising deans, directors, provosts, and principal officers (also referred to as significant others) including the Registrar, Pro-Vice Chancellor and Vice-Chancellor. Twenty-two were selected using stratified purposive sampling, with 50% to 60% in each category to ensure fair representation. The categorisation or stratified nature of the population provided an opportunity to pinpoint differences in the findings across the categories where they occurred. Although saturation was achieved by the 15th participant, 22 were interviewed to avoid criticism raised with regard to using saturation as a means to determine the number of participants in a qualitative study.

Table 1 *Distribution of Target Population and the Sample*

Category of Leader (Participants)	Population (N)	Number of Participants Interviewed
Deans	19	10
Provosts	5	3
Directors	12	7
Significant Others /Principal Officers:		
Registrar, Pro-Vice-Chancellor/Vice-Chancellor	3	2
Total	39	22

Source: Author's Construct

Semi-structured interview guides based on Kolb's (1984) ELT and the 70:20:10 model (McCall, 1988) were used to facilitate the face-to-face interviews and bring some structure to data collection (Bernard, 2011). The 70:20:10 model formed the basis for the questions seeking to understand the leaders' perceptions of the role played by on-the-job task performance, relationships with others in the work environment and training in their development journey. Kolb's ELT was drawn on to assess whether the participants' experiences taught them lessons that impacted their subsequent actions. Observation of a training section was another source of primary data, while a review of the university's statutes and training and development policy were the sources of secondary data.

The data were analysed using the thematic perspective of narrative analysis. This approach brings to the fore possible underlying causes and effects of events or their impact on people (Allen, 2018). The focus was on the impact of experiences of formal and informal learning, evident in the three sources, on developing individuals as leaders. The document analysis and information gathered during observation provided further insight into the phenomenon (leadership development).

Findings and Discussion

Formal and Informal Learning Experiences' Contribution to Leader and Leadership Development

All 22 participants believed that formal and informal learning experiences contributed to their leadership development journey. This implies that they learned and developed leadership skills through hands-

on task performance, their interaction with stakeholders and training received over the years. It confirms the elements identified in McCall et al.'s (1988) 70:20:10 model as sources of leadership learning in the workplace, which formed part of the study's theoretical framework.

This finding is discussed under the themes: *Informal Learning from Individual Hands-on Experiences, Informal Learning from Group Task Assignments, Informal Learning through Relationship Building and Interactions on the Job, and Formal Learning through Training.*

Informal Learning from Individual Hands-on Experiences

All 22 participants indicated that they learnt from performing leadership tasks (informal learning). It was important to understand their perceptions of how they learned individually (leader development) and as a group (leadership development) through task performance based on McCall et al.'s (1988) model. The participants indicated that their responsibilities required that they obtain hands-on experience (informal learning) in financial management, people management, administration, and, in the case of academic leaders, academic leadership. They learned from these experiences as they had the opportunity to lead from one position to another. They also noted that their experiences of hands-on task performance at lower levels of leadership remained useful when they achieved higher leadership positions. A provost indicated:

Having served in various capacities at the department and faculty levels, I am now in a better position to provide leadership to my deans, heads of departments, coordinators and others serving on various committees in the college [...] it is because I have been there before and I know what goes into their activities. [...] so, I will say having hands-on experience develops you into a good leader.

A director remarked:

It's such a complex environment, so holding administrative positions at the faculty level actually prepares you towards the directorship. This is important as you will have to make independent decisions and adopt innovative strategies and actions to manage your directorate [...].

This implies that learning occurred as the leaders performed various leadership roles along the organisational ladder. However, the findings

suggest that there is a need to build capacity to a certain degree before they are able to perform higher leadership roles (McCauley and McCall, 2014). The system should thus be structured to enable more individuals to gain such experience to prepare them for higher positions (leadership development perspective). This would result in the integration of leader and leadership development that will, in turn, engender staff's holistic development (Chetty and Mearns, 2012) to prepare them for higher leadership roles. However, as discussed under the subtheme *gradual process of learning from hands-on task performance*, this should be an incremental process.

Gradual Process of Learning from Hands-on Task Performance

All 22 participants agreed that during their exposure to leadership at lower levels, they gained experience by performing hands-on tasks. That motivated them to apply for higher-level leadership positions (Day et al., 2014). Experience refers to capacity, skills and knowledge acquired as a result of performing tasks in different positions, rather than just the number of years. The implication is that if leaders were to assume higher leadership positions in the university without prior leadership experience, this could negatively affect their capacity to deliver. Braun et al. (2009, p. 196) stated that “faculty are appointed to senior rank [position] based upon their deep subject knowledge, experience, and scientific accomplishment [not on leadership expertise]”. A director noted that he was appointed only after experiencing a number of responsibilities:

So, I served the Institute as Exam Officer for four years and then I also served as the Coordinator for the Sandwich Programme for six years... When the Institute was working with the [Y Teacher Education Programme], I was the coordinator for that programme and the last role I played had to do with being in charge of our outreach programmes.... It was after these past experiences that I got my appointment as the director.

This implies that the university structure is progressive in nature because it allows leaders to develop practical experience. It is evident in the above statement by an academic director who moved from lower-level leadership to higher-level leadership over a period of time. This finding confirms Day et al.'s (2014) assertion that providing leadership

opportunities at the lower levels is an avenue to build employees' capacity to assume leadership positions in the future. Therefore, experience should be a requirement for appointment to higher leadership positions in the university.

Informal Learning from Group Task Assignments

In line with Day (2001), the study differentiated leader development from leadership development, with leader development focused on the individual whereas leadership development takes a broader view, with networks and group activities and structure coming into play. As such, the study explored the influence of group task assignments on the development of leadership skills. It was found that the committee system was a critical structure in building leadership skills and experience to groom leaders to take up higher positions. The majority of the participants (20) revealed that group activities led to hands-on task experiences in groups and impacted their development. A dean commented:

The university works with a committee system, so as the head of a unit, you chair the board in that unit, and you have to work with the board members to make decisions on issues; and always learn from the discussions that are presented as you take those decisions [....].

The functions and responsibilities of each committee and its legal framework are set out in the university's statutes or policy documents. For example, the Operational Budget guides the Finance Committee's decisions and actions. This means that the frameworks are part of the institution's administrative infrastructure. A review of the statutes and some university policies showed that they facilitate the work of committees because the structure is well documented. It guides and smooths committee work, thereby facilitating group learning across the organisation. The administrative infrastructure thus lays the foundation for leadership development (social capital development perspective). In addition, the participants' responses suggest that when committee members meet, they also interact informally among themselves, and such interactions provide learning opportunities as they discuss issues, network and form collaborations. A provost stated:

I learnt a lot from my colleagues in our interactions at committee

meetings [...] we sometimes discussed issues relating to leadership and management of our various departments [...] I have applied some of the lessons, for instance, learnt from such interactions on countless occasions to address issues in certain situations in my leadership journey...

A dean remarked:

Things come from time to time. Currently, I have been asked to work with the HR Director to look at the new structure for the position of research associate and this is a direct relationship between an academic senior member and a purely administrative senior member. At the end of the day, a lot would be learnt from the performance of this assignment together. As I mentioned earlier, working on committees such as the Graduate Board and the Faculty Board have provided opportunities for learning

These findings confirm the existence of structures and practices that promote leader and leadership development that Day (2001) and Day et al. (2014) discussed through individual and group task assignments. However, no documented indication was found regarding a deliberate strategic objective on the part of the university to use group tasks or activities to provide leadership development at group level, although the Strategic Plan mentions leadership development. This means that the benefits that such situations bring to leadership development (integration) may not be fully acknowledged. Given Hoba et al.'s (2013) conclusion that leadership development in universities in sub-Saharan Africa lacks vision, the university should clearly articulate these strategic goals as modes whereby it integrates leader and leadership development.

Informal Learning through Relationship Building and Interactions on the Job

All 22 participants were of the view that some learning occurred from relationships with followers or stakeholders. They identified three stakeholder relationships that provided learning opportunities, namely, relations with juniors, colleagues and superiors. These terms are used generically to represent followers that are junior to the leaders in rank, those who are colleagues (same rank) and those higher in rank and yet are among the leaders' followers. For instance, it was found

that deans of faculties or schools have followers belonging to different hierarchies. This implies that they juggle a medley of relationships. The interactions that ensue from these relationships generate varying learning experiences that impact their leadership and their development as leaders.

Similarly, administrative leaders (directors) work with three levels of followers (juniors, colleagues and seniors). Therefore, all 22 participants worked and interacted with followers at the three identified levels. These findings provide the foundation for using the 360-degree feedback mechanism as a means of leadership development in the university. DeRue and Myers (2014) asserted that this mechanism is essential for leadership development as it enables the leader to obtain feedback from all categories of followers, impacting his/her actions and, subsequently, development. It was observed that although the interactions with the stakeholders create an avenue to use the 360-degree feedback mechanism to enhance growth and development, its use in the university was not evident. These findings are elaborated on in the subthemes below.

Learning through the Relationships and Interactions with Juniors

Nineteen of the 22 participants indicated that there were learning opportunities in interacting with juniors and that they benefited from a good relationship. It emerged that leaders build working relationships with subordinates by engaging them in the decision-making process. This helped the leaders to become familiar with procedures and processes that they encounter when they assume leadership roles because they depend on the organisational memory that this category of followers brings to the table. Increased involvement of followers in decision-making causes them to take ownership of the outcome. Serrano and Reichard (2011) noted that involving employees in decision-making makes for more engaged staff. A dean shared his experience with juniors:

You learn a lot from your juniors [...] When I came into this office, I came to meet people who have been here for almost 10 to 12 years [...] They know the ins and outs of the office [...] they know what functions well in the office; they know when things need to happen [.....] I think that from the cleaner to the driver, all have something to share, to contribute....

Learning through Relationships and Interactions with Colleagues

The majority (20 of the 22) of the academic and administrative participants submitted that good relationships with their colleagues were critical for their learning in their positions, contributing to their development as leaders. They identified two categories of colleagues from whom leaders learn: those in the same or similar position, and those in a higher position (for instance, the relationship between two deans or directors, and a dean with a provost). In relation to administrative leaders, the study found that consciously sharing leadership experiences among colleagues boosted their leadership capacity and engendered networking and collaboration. The academic participants noted that they were able to learn from one another because their functions were similar. For instance, deans and provosts play similar roles across faculties or colleges. However, with regard to administrative directors, though the mundane administrative activities are similar, the functions differed due to the functional nature of their position, such as Finance, Human Resource Management or Public Relations. Nonetheless, leaders of these functional areas all have the core responsibility of being a leader and demonstrating leadership capacities. Furthermore, the importance of interaction at this level was highlighted when a participant indicated that all administrative directors, irrespective of their functional area, met from time to time to discuss issues and share ideas. This implied that they understood the importance of learning from colleagues. An administrative director stated:

We learn a lot from each other because we do similar things [...] We mostly share our experiences through formal and informal sessions [...]; you know; senior administrative members have weekly meetings [...] We use such occasions to do presentations on new trends in administrative functions [...] Some members use the opportunity to ask questions and seek clarifications from colleagues about how certain administrative functions are and should be handled [...] I have gained a lot from such interactions.

The importance of followers' involvement through good relationship building in line with the leader's vision (Epitropaki et al., 2017) is also evident from the findings regarding relationships with colleagues. However, it seemed that administrative leaders took more advantage of this than their academic counterparts.

Learning through the Relationships and Interactions with Superiors

The findings suggest that maintaining good relations with superiors is crucial. Thirteen academic participants noted that the relationships they forged with seniors in their role as leaders were critical and unique. They had followers who were their seniors as a result of their rank in the university. For instance, a dean reported that one of the people he led was his former lecturer who had served as dean in the past and another, a former pro vice-chancellor. The study found that this was possible because of the rotational nature of the leadership positions in the university. The dean suggested that leading such people was not an easy task and required tact. The literature (Rowley and Sherman, 2003) highlights the need for academic leaders to be conscious of the fact that they lead a team of people who are professionals in their discipline. One of the deans observed:

[.....]. I have had some senior professors, particularly those who showed interest in my development and offered pieces of advice since I took up the mantle. I have realised it is important to maintain good relations with this category as well as colleagues to be able to drive home the agenda you have.

Similarly, most (4 of the 7) administrative participants indicated that they learnt from relationships with their seniors through the formal and informal mentoring. Some also benefited from other seniors who simply wanted them to succeed and were willing to offer advice. For example, an administrative director had this to say:

I have mentors, even my former boss who retired about four years ago, still reads the newspapers and sees things and calls me about them, telling me things to be careful with, things she has read and the implications that have for the job [...].

These findings imply that learning from relationships is multidimensional in the university setting, and that the participants learnt from different categories of stakeholders, including seniors, colleagues and juniors. However, success largely depends on the nature of the relationship that individual leaders build with these stakeholders. Consequently, leadership development practitioners need to be conscious of the peculiarities of the sector in designing programmes for leadership development in higher education. The literature suggests

that leadership programmes should be tailored to suit the particular context (Petrie, 2014), in this case, the university.

Formal Learning through Training

The study found that training takes place in-house or offsite. This concurs with the findings of other studies (Manuti et al., 2015; Marsick and Watkins, 1997, 2001). The third part of McCall et al.'s (1988) 70:20:10 model in which training is one of the sources of learning is captured in the conceptual framework as a source of formal learning in organisations. The objective of this aspect of the study was to identify how formal training featured in the participants' leadership journey. It was found that formal learning such as that received from training workshops and seminars contributed to the university leaders' development. The findings are presented under the sub-themes, *in-house* and *offsite training experiences*.

In-house Training Experiences

The study found that although there is a policy on training and development, the university did not have a documented comprehensive formal programme for leadership training and development. This is in line with Zulfqar et al.'s (2021) view that leadership development is not considered a core policy area in developing countries. The findings showed that leaders are given orientation on the university's operational structures and administrative processes with the aim of ensuring that they comply with the operations and systems for easy monitoring and auditing. This means that the focus of the training programmes using the university's internal structures leaned toward accountability and success in the position (horizontal leadership development). Such training was not targeted at developing creativity and innovativeness to enhance their leadership development (vertical leadership). For instance, a director stated:

The training programme organised by the university was not to develop me as a leader but to build on my capacity to function in the university in the leadership position.

Thirteen of the 22 participants indicated that leadership training is limited to those already in leadership positions. This limits development across the board to promote the leadership development perspective. The

findings further revealed that the university did not employ leadership training professionals to develop training geared towards leadership development which is broad and more holistic. Day (2001) and Day et al. (2014) called for leadership development programmes to be holistic and deliberate, meaning that those who provide such should have the requisite expertise. The in-house training provides learning experiences to succeed in the positions' core activities rather than for broad growth. The triangulation of data gathered through observation of a training session in August 2020 for newly-appointed heads of departments with that from the interviews confirmed the participants' perceptions regarding the in-house training programmes. The observation showed that training was geared towards enabling the leaders to succeed in their new positions. There is a critical need for more vertically oriented content pertaining to higher education institutions. Half a day or a day's training cannot adequately provide the leadership skills required by leaders to position them for leadership in this sectorEH.

Offsite Training Experiences

The findings revealed that sponsorship was provided for university leaders to benefit from offsite leadership training programmes, with an annual budget set aside. All but one of the participants indicated that they had attended one leadership training – the Senior Academic Leadership Training (SALT) programme. According to a former university administrator, now president of a private university in Ghana, Dr Paul Effah, the SALT programme aims to identify skills gaps in leadership performance in West African universities (Effah, 2018). A provost commented:

There were one or two training seminars that were organised by the Association of African Universities (AAU) for deans of public universities. I got sponsorship from the university [...] to participate in those workshops. [...] Also, in 2012/2013, the National Council for Tertiary Education [now Ghana Tertiary Education Commission] organised a training programme on senior administrative leadership training (SALT) which I benefited from as a dean at the time.

The responses showed that the offsite training programmes provided learning opportunities. However, it should be borne in mind that

only those already in leadership positions were eligible. Dopson et al. (2019) made a similar observation. Only one dean indicated having had the opportunity to attend an off-site training programme before being elected as dean. Similarly, Hoba et al. (2013) stated that the Association of African Universities' leadership training programmes targeted individuals in higher leadership roles. This narrow focus does not promote the broader perspective of leadership development. While critical, these external training programmes could be described as reactionary because they only focus on the demands of new or existing roles. There is an urgent need for programmes to be more broad-based to meet the current demands of the sector which is diverse and growing.

Training Received through Personal Effort

Apart from the university facilitating and sponsoring external training programmes, the study revealed that some (12 of the 22) leaders took personal responsibility for their leadership development to participate in leadership training programmes they were interested in, albeit with funding challenges due to the university's financial constraints.

A provost stated:

I have attended some training courses outside the country, mostly through my own initiative [...] I mostly search for leadership training programmes and apply [...] Most of them were fully sponsored by the organising institutions....

This finding showed that the respondents understand the importance of training in their development. Their efforts to access leadership training indicate that they were motivated to develop themselves in readiness for higher leadership responsibilities. Therefore, this finding emphasises the significance of personal effort (brought on by their level of motivation and self-awareness) in the leadership development enterprise. The university should broaden the base of leaders, linking training programmes to career progression. External training programmes should be used as strategic tools for planned leadership development, rather as a knee-jerk reaction to a lack of expertise.

Contribution of the Study

The findings confirm that the three sources of learning in McCall et al.'s (1988) 70:20:10 model propelled the study participants in their development as leaders in the university. It found that the concepts or elements that make up the 70:20:10 model, namely, learning from task performance, relationships and training were evident in leadership development in the higher education institution as formal and informal sources of learning. The study showed that creating the right structures and opportunities for staff across the board to take part in decision-making through representation on boards, on-the-job task performance, relationships, and training enhanced the possibility of conscious, holistic integration of leader and leadership development in the university environment.

Conclusion

The study demonstrated that the participants learned from formal and informal sources in the university setting. Informal learning on the job occurred through differing sources such as task performance (individually and in groups) and lessons from relationships in the work setting with juniors, colleagues and seniors. Formal learning through training also contributed to the participants' development. The findings show that structures are in place that position the university to ensure conscious integration of the perspectives of leader and leadership development in developing leaders. While the literature highlights challenges in developing leadership expertise, this can be achieved by taking advantage of the opportunities provided by learning holistically from the three sources in the university setting. More emphasis should, however, be placed on informal sources of learning given the different nuances and opportunities they present. The university should thus consider creating more structures that provide opportunities for development.

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Gender Perspectives on Academic Leadership in African Universities

Roseanne Diab, Phyllis Kalele, Muthise Bulani, Fred K. Boateng, and Madeleine Mukeshimana

Abstract

Women are under-represented in higher education leadership across the globe, with the gender gap in Africa being even more pronounced. This article reports gender-disaggregated statistics for senior academic leadership at 16 African research-intensive universities. The gender gap at the level of Vice-Chancellor (VC), the executive head of the university, is striking and is replicated at each leadership level. Women represented only 13% of VCs, half the universities had fewer than 50% women in their executive teams and half had fewer than 30% female Deans. The article also presents the results of an online survey instrument that was administered to faculty members at Deans' level and above at six of the institutions spread across South Africa, Ghana, and Rwanda to gain insights into women's academic leadership. Women ranked competence and experience as the most important factors in their leadership accession, indicative of belief in their own abilities and self-worth. They expressed a need for mentoring, measures to address discrimination and greater visibility. A wide gap was evident in men's and women's understanding of obstacles to more women occupying leadership positions. Men placed responsibility for the gender gap on women, stating that few are suitably qualified, and that women do not aspire to senior leadership positions. For their part, women pointed to systemic institutional failures as responsible for their under-representation.

Key words: gender; gender gap; Africa; higher education; women's leadership

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Sommaire

Les femmes sont sous-représentées dans les postes de direction de l'enseignement supérieur partout dans le monde, et l'écart entre les sexes est encore plus prononcé en Afrique. Cet article présente des statistiques ventilées par sexe concernant les hauts responsables académiques de 16 universités africaines à forte intensité de recherche. L'écart entre les sexes au niveau du vice-chancelier (VC), le chef exécutif de l'université, est frappant et se reproduit à chaque niveau de direction. Les femmes ne représentent que 13 % des vice-chanceliers, la moitié des universités comptent moins de 50 % de femmes dans leur équipe de direction et la moitié comptent moins de 30 % de doyennes. L'article présente également les résultats d'une enquête en ligne menée auprès de membres du corps enseignant de niveau doyen ou supérieur dans six établissements répartis entre l'Afrique du Sud, le Ghana et le Rwanda, afin d'obtenir des informations sur le leadership universitaire des femmes. Les femmes ont classé la compétence et l'expérience comme les facteurs les plus importants dans leur accession au leadership, ce qui indique qu'elles croient en leurs propres capacités et en leur valeur personnelle. Elles ont exprimé un besoin de mentorat, de mesures pour lutter contre la discrimination et d'une plus grande visibilité. Un large fossé est apparu entre les hommes et les femmes dans leur compréhension des obstacles à l'accession d'un plus grand nombre de femmes à des postes de direction. Les hommes attribuent la responsabilité de l'écart entre les sexes aux femmes, déclarant que peu d'entre elles sont suffisamment qualifiées et que les femmes n'aspirent pas à occuper des postes de direction. Pour leur part, les femmes ont pointé du doigt les défaillances institutionnelles systémiques comme responsables de leur sous-représentation.

Mots clés: genre, inégalités entre les sexes, Afrique, enseignement supérieur, leadership des femmes

Introduction

Women are under-represented in senior leadership positions in higher education institutions (HEIs) across the globe. Only 24% of the top 200 universities in the Times Higher Education (THE) World University Rankings have a female leader (THE, 2023). Given that the

world average for women faculty representation in tertiary education institutions increased from 33.6% in 1990 to 43.2% in 2020 (THE and UNESCO, 2022), the gender gap in leadership is striking.

While the percentages differ regionally and also depend on the sample of universities included, the general pattern of under-representation of women in senior leadership is upheld. For example, Jarboe (2018) reported that women comprised 29% of Vice-Chancellors (VCs) in the United Kingdom (2018 statistics), having increased from 17% in 2013 and 22% in 2016. In the European Union, 24% (2019 statistics) of all heads of HEIs were women (EC, 2021). Notably, 22 countries had no female university leaders (<https://sciencebusiness.net/network-news/eua-hard-numbers-female-university-leaders-europe>, accessed 24 August 2023). According to the American College President Study, in 2016, 30% of all college presidents in the United States were women (<https://www.aceacps.org/women-presidents/> accessed 24 August 2023).

The gender gap in leadership in Africa is even more pronounced. Of the 1 400 universities on the continent, only 41 had female VCs (2018 statistics) (<https://fawovc.org/> accessed 24 August 2023). At 2.9%, this is substantially lower than elsewhere in the world. The Forum for African Women Vice-Chancellors (FAWoVC) headquartered at Makerere University in Uganda was launched in 2016 to address this leadership gap across Africa. Its activities have included building Science, Technology and Innovation (STI) leadership, developing management capacity among African women VCs and emerging female academics in Mozambique, Sudan and Uganda, and gender-based assessments of the STI ecosystems in these countries. Statistics for selected African countries confirm women leaders' under-representation. For example, in 2021, only six of the 26 VCs (23%) in South Africa were women (IOL, 2021), while a mere two of the 12 vice-president positions (17%) at three Ethiopian public universities were occupied by women (2016 statistics) (Semela et al., 2017). Idahosa's (2019) review paper provides a useful context to the under-representation of women in university leadership across Africa, identifying changes required to close the gender gap.

Gender Dimension of Academic Leadership

Under-representation of women in academic leadership is a challenge from both a social justice perspective as well as in terms of the failure

to utilise a population's full capacity. Furthermore, many studies have pointed to improved organisational performance in the presence of leadership diversity, which includes gender (Longman, 2018). It has also been reported that women in academic leadership positions provide role models that can improve female student retention (Kagoda, 2011), which is especially important in countries where girls have low education attainment.

When it comes to reasons for the gender gap in academic leadership, the barriers faced by women are complex and well-documented. The fact that they are mainly positioned in the lower academic ranks means that only a small pool of women is available in senior ranks to take up leadership positions (Shreffler et al., 2019).

Some studies cite individual factors such as a lack of self-confidence (imposter syndrome), a lack of ambition (Howe-Walsh and Turnbull, 2016), or women's reluctance to apply for senior management roles. For example, Ward and Eddy (2013) argue that women often forego senior leadership positions because of sexist cultures in institutions, messy politics, or challenges with work-family balance. Others (e.g., Gash et al., 2012) support the notion that this is a woman's choice, noting that they often prefer part-time and potentially flexible work.

Universities' gendered institutional culture tends to be biased towards male academics (Ceci et al., 2014), with women academics being constrained by social sanctions that range from hostility to outright rejection (Domenico and Jones, 2006; Parks-Stamm et al., 2008; Prentice and Carranza, 2012). Universities increasingly operate in a neoliberal, globalised and corporatised context that emphasises measurable outputs and revenue generation (McKay and Monk, 2017) and normalises a culture of overworking, self-promotion, individualism, deficient collegiality, and competitiveness (Sutherland, 2017; Maddrell et al., 2019).

This gendered culture poses a challenge to women with family responsibilities, as they are less able than their male colleagues to work outside of office hours (Emslie and Hunt, 2009). Moreover, it means that women are less able to attend to family responsibilities in the course of their working day, or take career breaks when they need to without being penalised (Mukhwana et al., 2020). In instances where universities have policies that allow for flexible working arrangements to

enable academics to attend to family responsibilities, women academics who utilise them do so to the detriment of their career. They experience 'flexibility stigma', as they are perceived by colleagues as not contributing their fair share of work, and as reluctant to work overtime in a culture that praises overworking (Padavic et al., 2020).

The responsibility of caring for children and other family members affects women and men disproportionately. In general, women still carry a far greater caring burden and are often identified with this responsibility (Morley and Crossouard, 2015; Boateng, 2018), which causes them to experience work-family role conflict to a far greater extent than men (Torp et al., 2018). This particularly impacts women in the early stages of their careers. It is exacerbated among women in science and technology because experimental tasks may require working in the evenings and over weekends.

A further barrier is linked to the well-known observation that women's research output is generally lower than that of men (Cardel et al., 2020), negatively impacting their chances of promotion and career progression. As long as the number of publications is used as a metric for promotion or suitability for an academic leadership position, women will continue to be disadvantaged.

Based on the foregoing, an often-cited solution to improve the gender balance in senior leadership at HEIs is the need to 'fix the women'. As noted by Burkinshaw and White (2017), interventions thus focus on assisting them to break through the 'glass ceiling'.

However, recent studies tend to identify structural institutional barriers as the root cause of the paucity of women in senior academic positions. Indeed, Burkinshaw and White (2017) assert that universities, rather than women, need to be fixed. For example, Shepherd (2017) argued that women's missing agency was an insufficient reason for their continued under-representation in leadership positions. She found little difference between men and women in terms of their aspiration for senior leadership. Rather, she noted the numerous institutional barriers that inhibit women's career progression. The 'glass ceiling' that hinders many women's progression to leadership positions within HEIs is cited by Maddrell et al. (2019).

The literature notes that universities have gendered institutional cultures, where the traditional cycle of male leadership is repeated,

reinforcing male culture and leaving women feeling marginalised (Howe-Walsh and Turnbull, 2016). Leadership is often linked to masculinity traits such as competitiveness and ruthlessness, which are sometimes not attractive to women (Morley and Crossouard, 2015). Women do not always fit into the male-dominated culture and become isolated and lonely, experiencing tremendous pressure as a result. This gendered institutional culture is perpetuated through similarity attraction, where there is a tendency to attract people who are the same as their predecessors (Moody and Toni, 2017). Referred to as homosociability (Shepherd, 2017), it has also been described as a form of cloning that perpetuates the gender gap (Gronn and Lacey, 2006) as it exerts a powerful influence on who is appointed or promoted. Women's minority status in senior ranks also leads to perceptions of tokenism, which exacerbates the pressure they are under (Craig and Feasel, 1998). It has been suggested that a critical mass of 35-40% women in leadership positions is necessary to overcome such stigma (Karsten, 1994).

Shepherd (2017) also pointed to male-dominated networks as a barrier to women's advancement. Networks are considered a form of social capital (Howe-Walsh and Turnbull, 2016); hence, if women are unable to access them, they are disadvantaged. Barnard et al. (2009) referred to the existence of a 'boys' club' that excludes women, leaving them feeling marginalised.

Formal and informal gendered practices, including conscious and unconscious bias with regard to women's achievements and capabilities, the roles they play, and the work they undertake, are also cited as important factors. Howe-Walsh and Turnbull's (2016) study that was based on in-depth interviews with women leaders also reported a lack of support and failure to celebrate their achievements.

Women leaders tend to be viewed and evaluated first as women and second as professionals or leaders. These ingrained assumptions play out through expectations and the treatment of men and women, as well as the way in which leadership is understood (Stead, 2015). A study of women leaders in higher education highlighted that senior women's leadership and professional expertise was rarely regarded as the norm. Women in senior leadership roles are placed in highly visible positions and accordingly judged as leaders and as women, rather than just as leaders, as is the case with their male counterparts (Fitzgerald, 2014).

Sexual harassment, intimidation and bullying behaviour sometimes emerge in a male-dominated culture and inhibit women's progression to senior leadership positions. Howe-Walsh and Turnbull (2016) documented instances where women reported that their self-confidence was impacted, and in some cases, such behaviour made them fear for their personal safety.

Other factors posing a significant constraint in some contexts are socio-cultural belief systems, particularly those where gender stereotypes play a role and perpetuate what is regarded as gender appropriate behaviour. For example, Morley and Crossouard's (2015) study on women in higher education leadership in south Asia refers to the stereotype that women should not have authority over men, which negatively impacts their leadership. They also highlight that social class was a factor. Women from more privileged classes could rely on family support and cultural capital for assistance, which was not the case with their less privileged counterparts.

Furthermore, studies have found that some women in leadership positions tend to reproduce and embolden the patriarchal higher education system (Maphalala and Mpofu, 2017). These women replicate patriarchy by not supporting other women to achieve and progress to such positions – an approach referred to as the 'queen bee syndrome'.

Aim and Objectives

Mindful of the many barriers to women's academic leadership, our study reports on the gender dimension of the leadership profile at African research-intensive universities, which make up the African Research Universities Alliance (ARUA), a network of 16 universities across nine nations (<https://arua.org.za/wp-content/uploads/ARUA-Concept.pdf> accessed 24 August 2023). The countries covered include Ethiopia, Ghana, Kenya, Nigeria, Rwanda, Senegal, South Africa, Tanzania, and Uganda.

The study's objectives were to present gender-disaggregated statistics on the senior leadership at each university; conduct an online survey instrument to explore the barriers to women's accession to academic leadership positions, as well as the enabling factors, incorporating both men's and women's responses; and to make recommendations that would assist in closing the gender gap in senior leadership.

Companion papers on gender-based policies and strategies (Diab

et al., 2023a) and sexual harassment (Diab et al., 2023b) at ARUA institutions, which form part of our overall intention to understand gender equality at these research-intensive universities, are in preparation.

Methodology

Data collection involved gathering relevant information on university leadership from the 16 participating universities' websites. All these institutions provided sufficient information on their websites, except for Cheik Anta Diop University (UCAD) in Senegal, where the information was incomplete. We found that the executive leadership teams at the 16 institutions changed often, even over the three-year period of our study. Our research was not designed to explore the underlying reasons for the high turnover but it is not considered uncommon when contract positions are the norm at senior leadership level. We therefore set October 2022 as the date to finalise the leadership profiles, recognising that the statistics reported may not be valid before or after that date.

The online survey instrument was distributed to both men and women senior leaders (Deans and above) at eight universities where we obtained ethical clearance. Obtaining country clearance so as to request research and ethical clearance at each of the participating universities was a challenge during the COVID-19 pandemic. Long delays and a lack of responses from institutions were experienced. Ultimately, we were compelled to exclude eight universities from the online survey. While regrettable, a total of 46 responses (24 men, 21 women and one other) received from six institutions yielded a rich set of responses and enabled in-depth analysis. Since we were reliant on a university focal point to distribute the surveys, we were not able to determine the exact number of senior leaders who received the survey instrument; however, we estimate the response rate to be in the region of 30%. The responses received are disaggregated by institution and gender in Figure 1. It is noted that four were in South Africa, one in Ghana and one in Rwanda and that no responses were received from two of the targeted South African universities. Although South African institutions dominated, responses from Ghana comprised 43% of the sample, Rwanda 33% and South Africa, 24%.

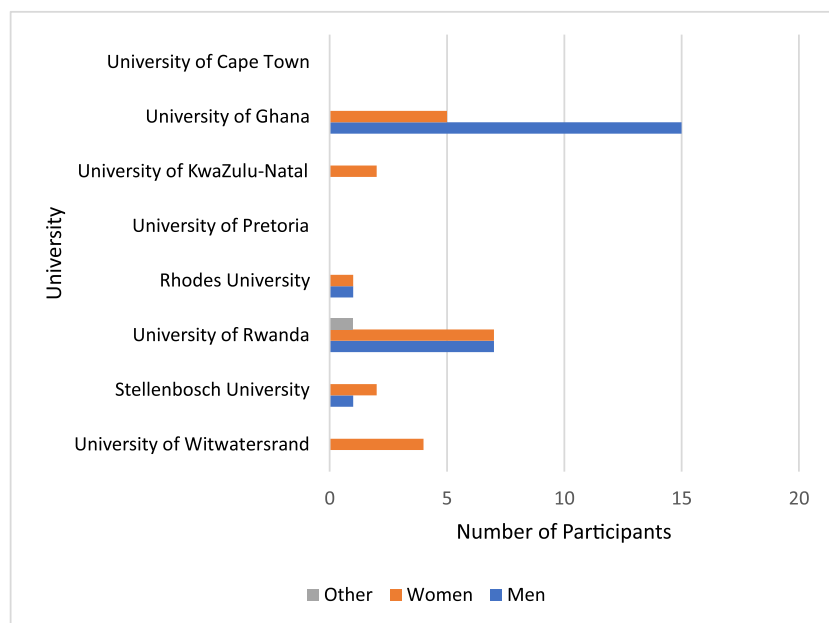


Figure 1: Number of survey respondents by institution and gender

Five questions were aimed at women leaders only and covered topics such as factors that had assisted them in their accession to a leadership position, their experiences at their current universities and interventions that institutions could implement to support them in their leadership roles. The remaining questions, answered by both men and women, covered factors such as obstacles to having more women in leadership, strategies/interventions that had been successful in advancing women to leadership positions, and how early-career women academics could best prepare themselves for leadership.

Leadership Profiles at ARUA Institutions

The senior leadership profile as extracted from university websites is documented from two perspectives, *viz.* the governance and the executive perspectives. The governance aspect includes the chair of the governing body, generally termed a Council, as well as the titular head of the university, usually known as a Chancellor. Some universities (e.g., those in Nigeria) have a position known as The Visitor, which is occupied by a senior government appointee. The senior executive management

team generally comprises a VC (or Principal) and several Deputy VCs (DVCs), with the latter having various institution-wide responsibilities. The next level consists of the heads (usually Deans) of various discipline groupings, commonly termed faculties. Whilst there are structural differences amongst the institutions, it was nonetheless possible to obtain an overview of the gender dimension of senior university leadership.

Progress has been made in terms of female appointments as Council Chairs and Chancellors. While the Chancellor is a figurehead, the Chair of Council provides leadership to the Council and strategic direction to the university, and monitors the university executive's performance. Six institutions have female Council Chairs (43%) and eight have males. A similar breakdown was found for Chancellors. Information was missing for two institutions (Addis Ababa University (AAU) and UCAD).

Less progress was evident when it came to the executive head of the university, the VC, who holds the most powerful decision-making position and is responsible for academic programmes and administration. Only two of the 16 ARUA universities (the Universities of Cape Town (UCT)¹ and Ghana (UG)) have female VCs. At 13%, this is below international norms and indicative of a large gender gap that is reproduced at each level of leadership.

The percentage of women in the senior executive leadership team ranges from 25% (University of Dar es Salaam (USDAM) to 75% (AAU)). The incumbents' decision-making powers vary across institutions, with most having considerable autonomy. The most gender-transformed institutions in terms of this measure are AAU, and the Universities of Ibadan (UI), Pretoria (UP) and the Witwatersrand (Wits), at which women make up 50% or above of senior executives. Figure 2 summarises the gender breakdown across all institutions and shows that the majority fall below 50%. In each case the VC, or equivalent, was excluded from the estimate of the female proportion of the executive team as these statistics were reported separately in the above paragraph. It is acknowledged that the size of executive teams differs among universities.

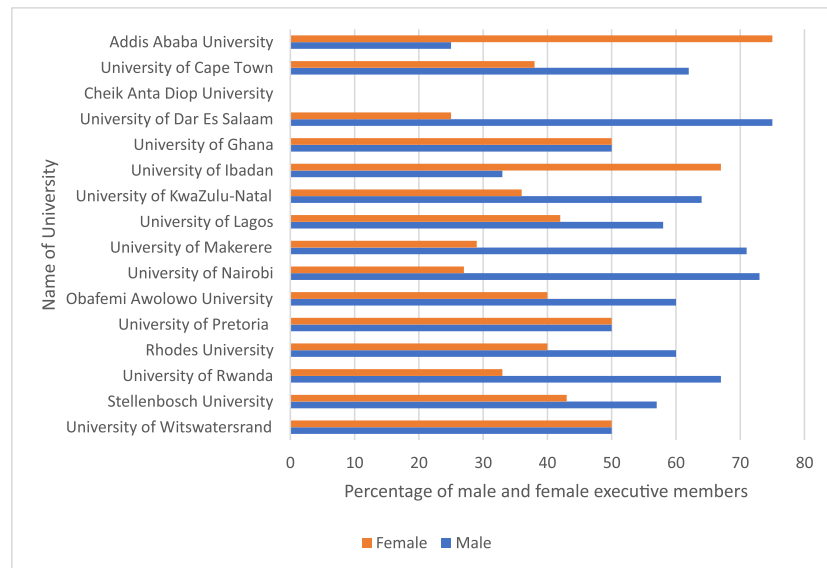


Figure 2: Senior leadership teams at ARUA institutions as a function of gender²

At the level of Deans, the percentage of female Deans is highly variable, ranging from 0% to 63%. Those with no female Deans were UG and Wits, while UCT is the only university with more than 50% representation. As shown in Figure 3, the majority (eight) have less than 30% female Deans. There was no consistent pattern linking particular faculties with female leadership.

The proportion of women in senior leadership positions is benchmarked against UNESCO statistics on that of female teachers in tertiary education for the countries where data are available, viz. Ghana (25%: 2021 data), Rwanda (19%: 2020 data) and Kenya (34%: 2019 data) (www.uis.unesco.org/# accessed 24 August 2023). Based on the overall pool of women available, the statistics generally reveal some positive intervention on the part of universities.

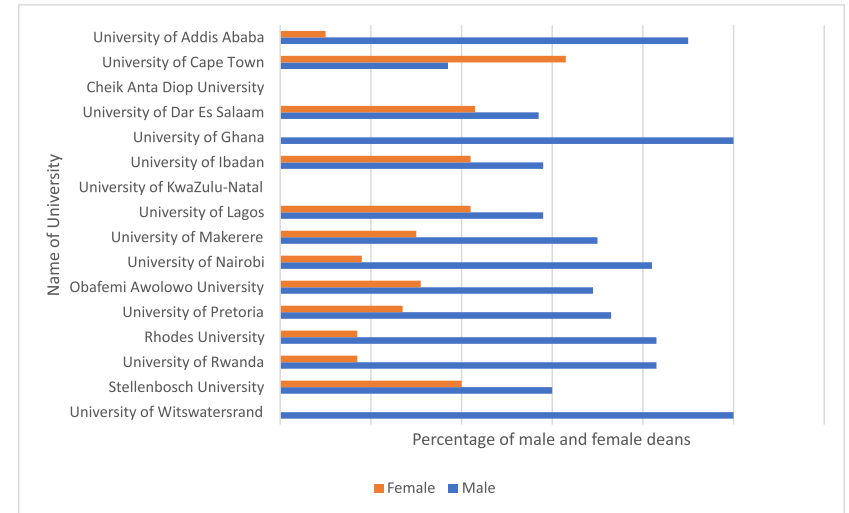


Figure 3: Percentage deans at ARUA institutions as a function of gender³

Respondents' Views on Women's Academic Leadership

Responses were received from both men and women from six universities across three African countries. In terms of *factors that played a role in their accession to leadership positions*, women ranked competence and experience as most important (Fig. 4). Factors such as luck and university policies/strategies did not feature strongly. The responses are a strong signal of belief in their own abilities and self-worth. The low number of responses for university policies suggests that they do not regard themselves as affirmative action appointees.

In terms of *support that women received in their accession to a leadership role*, the responses were spread across many factors (Fig. 5), with support from colleagues and junior staff the most often cited. Support evidently emanates from many quarters but is embedded in the institution and family.

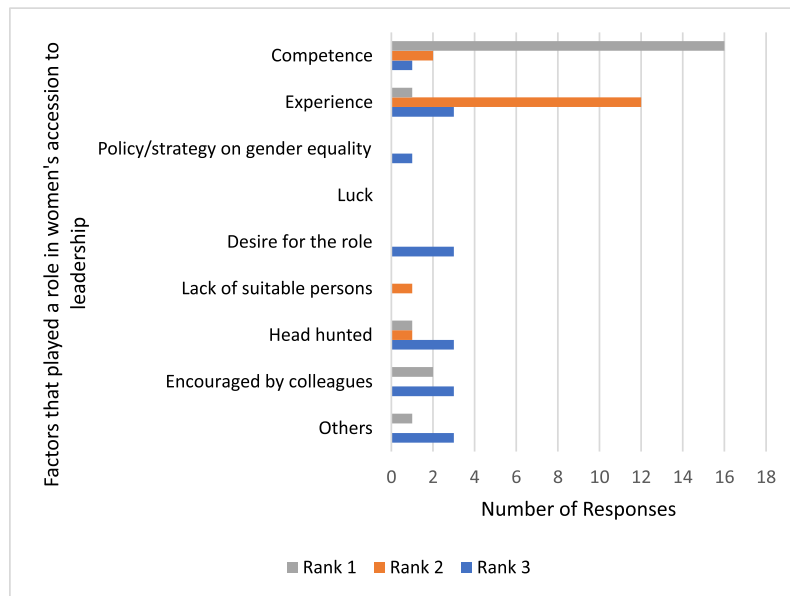


Figure 4: Factors that played a role in women's accession to leadership positions

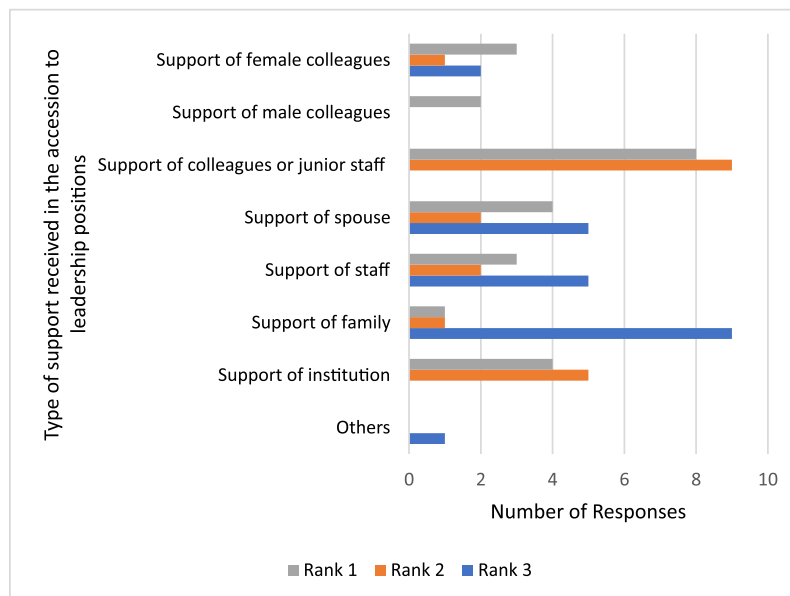


Figure 5: Type of support women received

In their responses to an open-ended question on *how universities could support women who aspired to leadership positions*, the primary need mentioned by almost half (ten) of the women respondents, was for “mentoring or coaching”. None of the respondents made specific mention of a need for sponsorship, which, alongside mentorship, is acknowledged in the literature as a powerful means to overcome gender inequalities (Thorne, 2020). De Vries and Binns (2018:6) define sponsorship as “the active and deliberative use of power to facilitate the careers of others”. It includes empowering, advocating and encouraging women to succeed. Structured mentorship programmes in leadership, as well as sponsorship programmes are interventions which an institution can readily introduce, and the beneficiaries need not only be women.

Another cluster of responses related to “avoiding discrimination”. Implicit in these is an indication that, whether conscious or unconscious, gender bias existed. This suggested the need for gender equality training to raise awareness and nurture knowledge and skills that underpin changes in behaviour. Again, this is something that is relatively easy for an institution to address.

The “need for additional resources” and more control over such also featured, including one respondent who cited a need for more support staff.

A fourth cluster of comments related to “improved systems, policies, and information flow”. There was also a call for “greater recognition”.

A question pertaining to *obstacles to having more women in leadership positions* was answered by both men and women. Respondents were asked to rank their top five preferences from a predetermined list. There were marked differences in men and women's responses. For men, the factors that scored the highest were “the lack of suitably qualified women” (16 responses in the top five ranks) and “the reluctance of women to take on leadership positions” (15 responses), followed by “socio-cultural belief systems” (12 responses). In contrast, women mentioned “institutional culture that favours men over women” (11 responses), while nine responses related to “unconscious bias”, “poor networking opportunities”, “poor implementation of family-friendly policies” and “socio-cultural belief systems”, respectively. They did not ascribe importance to the unavailability of women candidates. Women's responses aligned closely with factors such as gendered institutional

cultures (Howe-Walsh and Turnbull, 2016) and male-dominated networks (Shepherd, 2017), referred to in the literature.

The wide gender gap in understanding of obstacles to women's leadership is of concern and could hamper future gender transformation at university leadership level. Men placed responsibility for women's under-representation on women themselves – too few were suitably qualified, and women did not aspire to senior leadership positions. Interestingly, men ranked the assertion that women were under-qualified above low numbers of women (16 and 10 responses, respectively). In contrast, women's responses pointed to systemic institutional failures that inhibited their accession to leadership roles. Bridging this perception divide will require interventions on the part of institutions. There were some areas of agreement which could offer a starting point for strategies aimed at closing the gender gap. For instance, low visibility of qualified women received eight responses from women and ten from men.

An open-ended question asked all respondents to identify the *strategies/interventions to appoint more women to leadership positions* that had worked for them at their university or at other universities with which they are familiar. Again, "formal mentoring and coaching programmes" were prioritised, with the majority suggesting that such programmes specifically target women. Closely allied was the mention of role models, particularly senior women. There was recognition of the oft-held view that women do not promote themselves as well as men (Herbst, 2020) and a call to "make women more visible" by giving them opportunities to speak at public events and highlighting their achievements. One respondent suggested "raising awareness in women first that they are capable of doing what men can do", a reference to the 'fixing the women' approach referred to earlier. There was also a suggestion to facilitate improved networking opportunities for women. Six respondents noted that women needed "encouragement" to take up leadership positions. The role of policy that sets targets or quotas for women in leadership positions was also mentioned.

Responses related to a need for "family-friendly policies" and "flexible working hours" were raised almost exclusively by women. Such policies are required to ensure that women do not lose momentum in their careers. It was noted that women often juggle work and family responsibilities and there were calls for subsidised childcare and

childcare facilities close to the university.

In probing *how early-career women could best prepare themselves for leadership positions*, "mentorship and the identification of role models" was again the dominant theme. There was a strong call for structured mentoring programmes. It is acknowledged that some universities have made great strides in their leadership mentoring programmes. Most examples we found existed at South African institutions where the drive to transform the racial profile of university leadership has simultaneously benefitted the gender profile. Wilson-Tagoe (2015) draws attention to mentorship of women academics in leadership in Ghana.

A second preparatory factor was "building one's academic reputation" through prioritising research and publishing. There was broad recognition that academics establish a reputation through research. "Engaging broadly across the university" was another theme. Suggestions were also made to not only focus on teaching and research, but to participate in committees and to engage in faculty issues to understand the university and how it functions. Other suggestions spoke directly to early-career women's personal development and included "the establishment of personal goals", emphasising the importance of early preparation; "building confidence" through improving communication skills and believing in oneself; "networking and building relationships"; and ensuring good "family support".

The overwhelming majority of respondents (89%) supported the closing of the gender gap in university leadership. Reasons given included the importance of a "diversity of perspectives" in an organisation that would benefit, enrich, and legitimise decision-making. Included within the same theme were views that women's leadership style is different and that it is important to utilise their skills sets to have a broader impact on society. Another broad theme related to "human rights and equal opportunities". It was noted that women make up half the population; thus, it is important to ensure equality, and that failure to do so would be a waste of human potential.

There were a few negative responses citing issues such as, "*I think that appointment to leadership position should be based on competence and not gender*" and others that drew attention to cultural beliefs and stereotypes and highlighted women's many responsibilities in the home.

Enablers of Women's Leadership

Our study highlighted mentoring, increasing women's visibility, family-friendly policies, and networking opportunities as important enabling factors identified by women. Others cited in the literature include promoting inclusive workplaces and emphasising the leadership characteristics required for the 21st century rather than relying on stereotypical characteristics (Fitzgerald, 2014). Stead (2015) suggested a shift in the focus of leadership research from one where leadership style is at the centre, which tends to reinforce traditional stereotypes, to one that focuses on how leadership works, how gendered practices are perpetuated, and how we can propose alternative models.

The enablers highlight policy and cultural changes that are required in institutions, as well as universities' responsibility to mentor and showcase women academics so that the gender gap in academic leadership can be closed.

Summary and Conclusion

This article presented gender-disaggregated statistics on the leadership profile at ARUA institutions to provide context on the leadership gender gap at Africa's leading research-intensive universities. In summary, the gender gap at the level of VC, the executive head of the university and the most powerful decision-maker, was striking. Women represented only 13% of VCs and if one excluded UCT, where the female VC had recently vacated her position, there was only one university among 16 with a female head.

While women's representation in executive leadership teams and at the level of Deans varied considerably across universities, half had less than 50% women in their executive teams and half had less than 30% female Deans.

An online survey instrument administered at eight of the institutions, with responses from six universities spread across South Africa, Ghana and Rwanda, offered insights into women's views on factors that had played a role in their accession to leadership positions, support that they had received, and how their universities could best support them. Women ranked competence and experience as the most important factors in their leadership accession, indicative of belief in their own abilities and self-worth. They expressed a need for mentoring,

measures to address discrimination and greater visibility.

A wide gender gap was apparent in men's and women's understanding of obstacles to having more women in leadership positions. Men placed responsibility for under-representation on women, stating that too few were suitably qualified, and that women did not aspire to senior leadership positions. In contrast, women pointed to systemic institutional failures.

Formal mentoring and coaching programmes emerged as the dominant successful interventions. Suggestions made to enable early-career women to best prepare themselves for leadership positions were to take advantage of mentoring programmes, build their research reputation through publications, and build their confidence through improved communication skills.

Acknowledgements

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(Endnotes)

- 1 At the time of finalising this article, the UCT VC had vacated her position and had been replaced by a male Acting VC.
- 2 Data for UCAD were not available on their website.
- 3 Data for UCAD were not available on their website and UKZN leadership structures did not include Deans.

What can Fraser and Bourdieu teach us about success and obstacles in the implementation of Recognition of Prior Learning?

Lunga Xolisa Mantashe

Abstract

Despite the adoption of Recognition of Prior Learning (RPL) policies, its implementation lags behind, remains un-coordinated and lacks institutional support. The key issues underlying these challenges include knowledge contestation and gatekeeping in the form of resistant cognitive structures in defence of the intellectual foundations of university knowledge. This article weaves the theories of Fraser and Bourdieu together to analyse the literature on RPL policy, pedagogic agency and practice in order to deepen understanding of RPL's success and obstacles. Fraser's notion of parity of participation is useful in that it theorises how adherence to social justice principles to promote RPL implementation can be created in the academy. Bourdieu's work facilitates interrogation of the habitus, and social and cultural capital of RPL practitioners in relation to the habitus of academics, and how these impact the crossing of knowledge boundaries via RPL as a specialised pedagogy. The article concludes that successful RPL implementation requires, *inter alia*, that attention be directed to honing the class habitus of the academy as a whole, including adequate theorisation of the conditions necessary for the existence of pedagogic agency within the context of the prevailing knowledge difference discourse.

Key words: Recognition of Prior Learning, habitus, agency, social justice, parity of participation

Sommaire

Malgré l'adoption de politiques de reconnaissance des acquis de l'expérience (RPL), leur mise en œuvre est à la traîne, reste non coordonnée et manque de soutien institutionnel. Les questions clés qui

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sous-tendent ces défis comprennent la contestation des connaissances et le contrôle de l'accès sous la forme de structures cognitives résistantes qui défendent les fondements intellectuels du savoir universitaire. Cet article associe les théories de Fraser et de Bourdieu pour analyser la littérature sur la politique de RPL, l'agence pédagogique et la pratique afin d'approfondir la compréhension du succès de la RPL et des obstacles qu'elle rencontre. La notion de parité de participation de Fraser est utile dans la mesure où elle théorise la manière dont l'adhésion aux principes de justice sociale visant à promouvoir la mise en œuvre de la RPL peut être créée dans l'académie. Les travaux de Bourdieu facilitent l'interrogation sur l'habitus et le capital social et culturel des praticiens de la RPL par rapport à l'habitus des universitaires, et sur la manière dont ils influencent le franchissement des frontières du savoir par le biais de la RPL en tant que pédagogie spécialisée. L'article conclut qu'une mise en œuvre réussie de la RPL exige, entre autres, que l'on s'attache à affiner l'habitus de classe de l'université dans son ensemble, y compris une théorisation adéquate des conditions nécessaires à l'existence d'une agence pédagogique dans le contexte du discours dominant sur la différence de savoir.

Mots clés: Reconnaissance des acquis, habitus, agence, justice sociale, parité de participation

Introduction

The conversation on RPL in South Africa is just over three decades old (Jacobs, 2018). The concept was first proposed by labour unions in the 1990s (Ralphs, 2016) in order to promote access, equity, and redress (Osman and Castle, 2002; Osman, 2004; Ralphs, 2016; Cooper, Harris and Jones, 2016; Hlongwane, 2019), which are moral, social justice imperatives (Frick and Albertyn, 2010; Kindred, 2018; Jacobs, 2018; Browning, 2020).

The fact that the RPL conversation was not initiated by the academy accounts for the multi-faceted challenges related to the policy-practice disjuncture and pedagogic, agential implications. Some studies show that access via RPL is not yet widespread (Cooper and Harris, 2013; Patman and Vidovich, n.d.); and that it lags behind (Harris, Breier and Wihak 2011; Kawalilak and Wihak, 2013), with low uptake (Hlongwane, 2019).

Importantly, RPL remains “marginalised, invisible, misunderstood, underutilised... to some extent resisted within university”, uncoordinated and without institutional support (Browning, 2020, p. 31). It is not “readily recognised by most people, including most academics, and even by many in the prior learning community” (Kindred, 2018, p. 6), let alone its opportunities (Wihak, 2007).

There is also an incorrect perception that RPL is a shortcut to circumvent the academic demands of learning for adults without traditional qualifications (Osman and Castle, 2002), or that it does not provide foundational knowledge which is vital in preparing students in academia (Kawalilak and Wihak, 2013).

These views could be due to higher education institutions’ interest in preserving their space and cultural capital (Pitman and Vidovich, n.d.), i.e., the stakes in the field (Bourdieu, 2002) and perceptions that research-driven institutions’ capitals may be under threat (Pitman and Vidovich, n.d.) if RPL makes unrestricted entry into the academy.

This article examines the lessons that can be learned with regard to RPL implementation by applying Fraser and Bourdieu’s theories. It argues that RPL implementation with a social justice imperative as articulated by Fraser (2008) requires that attention be paid to honing the habitus of the entire academy rather than only RPL practitioners or committees. It also argues for the need to adequately theorise the optimal conditions for the existence of an appropriate pedagogic agency within the context of the prevailing knowledge difference discourse.

Themes and their implications

The article critically engages themes drawn from the literature on RPL, including (1) the discourse on the contestation of knowledge, (2) the disjuncture between RPL policy and practice (Jacobs, 2018; Hlongwane, 2019), and (3) pedagogic agency in relation to its effects on RPL practices. Regarding the first theme, knowledge difference influences RPL policy and practice, including the disjuncture between the two. In relation to the second theme, the article posits that a collective disposition attuned to RPL at university structural levels is important for effective institutional RPL practices.

The specialised nature of RPL and pedagogic agency identified in theme three are perhaps the most important recurring themes; they

are always tacitly involved and yet engraved in the RPL literature (see Shalem and Steinberg, 2002, 2006; Sanderberg and Andersson, 2011; Cooper and Harris, 2013; Pokorny and Whittaker, 2014; Cooper, Harris and Jones, 2016; Ralphs, 2016; Cooper, Ralphs and Harris, 2016). The themes have a relationship with one another and with RPL’s success or failure. They are critiqued at length after the brief discussion on the theoretical frameworks employed.

Theoretical Frameworks

The work of two theorists – Fraser and Bourdieu – informs the overall argument in this article. Fraser addresses social justice, while Bourdieu is concerned with both reproduction and gradual changes in human practices.

Fraser

Fraser is a social justice theorist whose work is concerned with overcoming economic, political, and cultural injustices (Fraser, 2008). Since RPL falls within these three interactional dimensions, there is a need for access, redress, and equity via RPL (Ralphs, 2016). Of relevance in this article is the notion of cultural injustice which Fraser also refers to as misrecognition (Fraser, 1996, 2008). In her view, this calls for recognition which is not just about recognising difference, but embracing it, thus regarding what is different as having value and therefore worthy of recognition rather than subordination to the powerful (Fraser, 1996).

In its purest, aspirational form, RPL seeks recognition of knowledge forms and sites whose value and status were not previously recognised. Fraser (1996, p. 7) notes that an individual or group may suffer from three outcomes of the exercise of cultural power; namely, “cultural domination..., non-recognition ..., and disrespect”. She holds that this can be addressed by “revaluing disrespected identities and the cultural products of maligned groups”. While strides have been made in revaluing prior learning, RPL remains ideationally objectionable to some structural and cultural elites who feel the need to protect the academy from intrusion.

Cultural misrecognition and representation can negatively impact RPL discourse, policy, practice, and pedagogic agency. The concept of parity of participation that aims to redress the injustices of misrecognition

and misrepresentation is important in understanding the need for equal representation of marginalised knowledge forms. As discussed later under the theme, knowledge discourse, equal representation does not imply that knowledge forms enjoy equal relations with one another. Rather, it means that the interfaces between them can be fairly recognised and credited and that they have an equal chance of being considered in the processing of RPL applications and appeals.

While useful, Fraser's conceptual structure has limitations. One is that it is more propositional than explanatory in terms of the conditions that make it possible for misrecognition and misrepresentation to change to recognition and representation. For example, she calls for change in institutions' objective structures (see Fraser, 1996, 2008) without explaining how such change takes place.

Furthermore, the proposed concept of parity of participation lacks a theory of change, as it does not explain why institutional patterns, structures, and values remain unchanged or are changed when policies, for example, are adopted to facilitate such change. Bourdieu's theory offers an explanation of the tendency for reproduction of or gradual change in human practices in different fields.

Bourdieu

Bourdieu's theory explains why and how reproduction of structures and practices is possible in a field. He does so through his three main, interlocking constructs – habitus, capital, and field. Habitus refers to the entire structure of a person's thoughts, beliefs, cognition, ideas, and actions (Bourdieu, 1990). It involves previously internalised dispositions resulting from implicit and explicit socialisation within a specific logic of practice in a field (Ibid.). According to Bourdieu, the process of socialisation is generally not formal and intentional, but it produces lasting intellectual, cognitive, and practical behaviours.

It is for this reason that actors usually take previous practices as true and unchallengeable, and other possible actions that are outside the logic of the field as unthinkable (Bourdieu, 1990). Bourdieu empirically demonstrates the tendency for human practices to be reproduced through the alignment of cognitive and external structures. In terms of this theory, academics and assessors (actors) have a habitus that corresponds to the logic of the academic field. For example, “[i]t could

be said that the habitus (disposition) of the assessor affects the RPL assessment process, which in turn fortifies the habitus of the field of higher education” (Pitman and Vidovich, n.d., p. 3).

Bourdieu defines a field as a relatively independent space in which actors interact or play the game using various strategies. The academy (the field in question) enjoys a high degree of autonomy and control over decisions about knowledge production and distribution, just as it shapes academics' dispositions. Although independent, it is not completely immune to external influences such as government policy and economic demands. The field becomes the terrain in which manifestations of power dynamics and contestations for the accumulation of capitals occur (Bourdieu, 1990).

The article also deploys Bourdieu's relational concept of capital, specifically social and cultural capital, which he holds are both “transformed, disguised forms of economic capital” (Bourdieu, 1986, p. 24).

Social Capital

According to Bourdieu (1986), social capital is generally about networks and connections made by individuals in the field, i.e., relations outside the individual actor. “The volume of the social capital possessed by a given agent thus depends on the *size of the network* of connections [one] can effectively mobilize and on the *volume of capital* ... possessed in [one's] own right by those to whom he [sic] is connected” (Bourdieu, 1986, p. 22. *My emphasis*).

In the context of this article, social capital refers to the extent of RPL practitioners'/assessors' connections with departmental, faculty, and senate members. As a relatively new and specialised area, RPL requires practitioners to navigate an academic space in which other academics may not yet readily accept it. This calls for RPL assessors to establish a comprehensive network that can advocate for RPL. Those entrusted with the institutional duty to sit in admissions committees act on behalf of a department or faculty and are regarded as competent to administer RPL related processes and therefore to represent the academy's attitude towards RPL – because ultimately, they must demonstrate to academics that knowledge created outside is equivalent to that offered in the academy.

Cultural Capital

Cultural capital refers to individuals' personal assets – knowledge, skills, and qualifications – through and because of which they navigate the field in which they exist (Bourdieu, 1986). It follows that just as individuals within the academy have different volumes of cultural capital, there are differences between the cultural capital of RPL applicants and those of their assessors. Moreover, cultural capital is not equally distributed between the academic site and other sites of knowledge production, resulting in the unequal status of these knowledge forms and their relationship with access to economic capital (opportunities for well-paying jobs). Such differences mean that RPL assessors could be influenced by their history, culture, and the academy's attitude towards knowledge produced outside its control or sphere when dealing with RPL issues.

In summary, Fraser's notion of parity of participation advocates for recognition of previously devalued knowledge statuses and groups of people who, as a consequence of their non-academic knowledge, have unequal capitals. It calls for the restructuring of institutional mechanisms and patterns in favour of structures that advocate for social justice imperatives. For his part, Bourdieu theorises the ways in which institutional actors are socialised and how their socialisation affects their level of conscious reflection when engaged in RPL related matters. Both frameworks help to illuminate how and why actors engage in RPL, just they enhance our understanding of its slow, complex implementation.

Knowledge Discourse and Its Relation to Policy and Practice

The knowledge debate is not rehashed in this section. Suffice to state first, that tensions are evident with regard to knowledge production and the site of its production and acquisition (Osman, 2004; Cooper, 2016; Starr-Glass, 2016). Second, the dominant view in the debate is one predicated on knowledge difference (Ralphs, 2009; Cooper and Harris, 2013; Cooper, 2016), which this article agrees with.

Differences in knowledge structures, together with notions of the extent of academic disciplines' weak and strong boundedness (Bernstein, 2000), may affect how policy is constructed, including the practical ways in which the academy engages with RPL as a specialised pedagogy. For example, Cooper and Harris (2013) state that academics have high regard

for the academy as the site of knowledge production, implying that their collective habitus has not yet unreservedly acknowledged the validity of externally produced knowledge. In many ways, this is not surprising, because a change in habitus takes time to evolve and ordinarily emerges gradually (Bourdieu, 2000, 1990).

In the knowledge discourse, RPL is accommodated, sceptically by some, and on terms by sometimes resistant research-based institutions (Browning, 2018; Patman and Vidovich, n.d.) that feel that it poses a threat to "the intellectual foundations of university learning" (Wihak, 2007, p. 98). Such sceptical accommodation and gatekeeping (see Osman, 2001; Wong, 2011; Harris, 2013; Cooper and Harris, 2013; Browning, 2020) in the form of resistant cognitive structures (Wong, 2014) or beliefs (Kawalilak and Wihak, 2013) reflects constraining ideological differences (see Archer, 1996) about where and how knowledge is produced and learning occurs.

However, human agency has the (constrained) power to act creatively and overcome structural and cultural constraints. Indeed, studies show instances of both good RPL policy (Hlongwane, 2019; Jacobs, 2018) and creative RPL practices (Ralphs, 2016; Cooper and Harris, 2013; Singh, 2011). These laudable policies and practices occur despite the practical reality of knowledge difference, perhaps because when knowledge takes the form of curriculum and pedagogy, pedagogic agency creates the opportunity for creative RPL practices (Cooper, Harris, and Jones, 2016). This point is further addressed after the next theme.

Policy-Practice Disjuncture

RPL policy development in South Africa points to evolution of thought at national, sectoral, and institutional level, a shift from matching prior learning to the standards of the academy (SAQA, 2002), which is criticised as too technical and procedural (Ralphs, 2012), to a more mediatory pedagogic device in the 2013 sector policy (Ralphs, 2016). However, little progress has been made in implementing RPL policies. Internationally, despite the existence of policies and funding, RPL also lags behind (Harris, Breier and Wihak, 2011) and is marginalised and inadequately exploited (Wong, 2011 and Travers, 2011 cited in Kawalilak and Wihak, 2013). The United States of America, particularly at college level (Starr-Glass, 2016), is an exception (Travers, 2011). However,

RPL is uncoordinated and lacks institutional support in Canadian universities (Browning, 2020). Furthermore, RPL policies are regarded as inconsistent, inadequate and unconcise as in the case of the United Kingdom (Coombridge and Alansari, 2019).

Policy formulation is a subjective process that is driven by powerful interests and interest groups, including those that seek to preserve their academic capital. An Australian study argues that institutions which embrace different knowledge sites are perceived to have “low academic capital” (Pitman and Vidovich, n.d., p. 8). Deductively, taking into account institutional type and history, institutions ranked at a lower level could, depending on the extent of their commitment to social justice, scale down their flexibility on RPL to avoid this perception.

Pitman and Vidovich (n.d.) show that an institution’s volume of capital (and institutional type) and disposition influence the way RPL is received and implemented. All three institutions they studied with different capitals valued *work* rather than *life* experience, reasoning that students come to university in order to get jobs at a later stage.

In contrast, Moodley, Shah, and Bofelo (2016) found that the Workers’ College in Durban, South Africa that offers access to university through one-year diploma programmes also values life experience and uses it to inform curriculum development. The reason lies in its founding philosophy that is based on liberation and transformation; it has no intention of competing or increasing its capital outside its fundamental liberatory purpose. This philosophical socialisation and its internalisation by institutional actors operates differently and more favourably towards RPL than an institution not directly founded on these ideals.

Gatekeeping

Gatekeeping could be embedded in policies that are in themselves academically justifiable. Beyond the lack of interest in social transformation among other academics (Frick and Albertyn, 2010), there could also be an interest in maintaining the precarious status of RPL and its applicants – the injustice embedded in the institutional makeup in the form of looking down (Fraser, 1995) on prior knowledge.

RPL is sometimes seen as politically driven, and therefore, a threat to academic standards (see Cooper and Harris, 2013; Hlongwane,

2019). In some cases, these notions are held by senior academics that have the power to admit applicants (Cooper and Harris, 2013). This is consistent with the argument that cultural elites, in the form of the university professoriate, act in ways that protect the long-held logic of academia discussed above (Singh, 2011; Osman and Castle, 2002). These ideas and practices increase the likelihood of misrecognition and misrepresentation (Fraser, 2008), and therefore, continued marginalisation of prior learning knowledge structures.

Hlongwane (2019) investigated institutional policy compliance with national RPL policies in the context of Library Information Systems among ten universities. The study found that six have policies that make reference to legislation and regulations related to RPL. Documentary analysis showed that institutions were committed to broadening access for RPL candidates and to the ideals of equity, and redress. However, Hlongwane does not go beyond policy alignment and abstract commitments to explore concrete institutional practices on RPL. Interrogation of the disjuncture between policy and practice is thus lacking.

Jacobs’ (2018) research fills this gap to some extent. It found that the university it studied had sound policies and regulations that value RPL and lifelong learning, but concluded that an embedded institutional culture prevented the policy ideas from playing out in practice. Cooper and Harris (2013) and Cooper, Harris, and Jones (2016) concur that institutional culture plays a significant role in RPL implementation. The question that thus arises is: how can cultural biases and a lack of expansive RPL implementation be reconciled with the fact that some institutions have RPL policies?

A possible answer is that academic institutions and agents can only represent the interests of RPL applicants intellectually and in aspirational terms in policy documents. Pitman and Vidovich’s (n.d.) study concludes that RPL policy can be constructed beyond the idea of valuing valuable knowledge; it can be constructed to serve the academy’s strategic interests rather than those of RPL applicants. One such strategic interest may be to represent the institution as policy compliant in the eyes of the public. Another may be to enhance its reputation.

The “active and conscious process of [RPL] policy development” found by Jacobs (2018), for example, in the case of Stellenbosch

University, may be a response to government policies on access, redress, and equity by institutional, powerful agents who feel pressured but not committed to and interested in the implementation of RPL. The lesson from Bourdieu's framework is that such measures are themselves strategies adopted to play the game, rooted in the academy's historical immersion in belief in its hegemony over the location of knowledge production. However, at the point at which RPL "is viewed as a threat to a university's position, universities will enact RPL policy to restrict knowledge acquired via nontraditional learning processes" (Browning, 2020, p. 19) in order to maintain their cultural position (see Pitman and Vidovich, n.d.).

Policy Caveats and Biases

Apart from the above, policy restrictions may take the form of structural caveats like "exceptions" to the rule, as can be found in the sector policy (CHE, 2016). For example, the rules set by South Africa's Council on Higher Education (CHE) (2016) prevent a candidate from gaining a qualification solely via RPL. The CHE maintains that this is in line with the residency rule, which prescribes that only up to 50% of credits can be transferred. The rule is predicated on refreshing a candidate with relevant, up-to-date knowledge in a particular field (CHE, 2016). There appear to be valid academic premises for the existence of these rules. However, there are also critiques of them. First, it was found that institutions used the residency rule to deny articulation "no matter how up-to-date and rigorous such learning [by an applicant] might have been" (SAQA, 2018, p. 95). Second, it has been claimed that the residency rule is outdated (Bloem, 2013) and needs to be revised (Needham, 2013). The cap on admissions via RPL at 10% (CHE, 2016) is also regarded as discriminatory (Singh, 2011).

Policy prescripts such as these may unintentionally serve as a strategy of sector dispositional schemata to ease ideational contradictions between RPL advocates and gatekeepers of and in the academy. This renders the relationship between policy change and cultural change worthy of brief interrogation.

While important, policy does not automatically change nor directly shape culture. It is also not sufficient to change RPL practices. Instead, "cultural systems shape the nature of practice" (DHET, 2013, p. 13 cited in

Jacobs, 2018). In an institutional setting, such dispositions hide knowledge of the cultural injustice academics mete out to RPL applicants. Harris (2006), cited by Kawalilak and Wihak (2013), affirms this formulation in the context of RPL practices rather than policy. She found that, despite being committed to social justice in relation to admitting RPL candidates, programme facilitators were not aware of their own dispositions which privileged academic criteria in judgement of prior learning. They unwittingly did not equitably represent these knowledge sites.

Therefore, while *social justice* is important as a conceptual, aspirational phenomenon in policy documents (perhaps as Fraser [1995] would like, for institutions to create institutional arrangements which make *parity of participation* possible between multiple knowledge sites), beneath it lies the vitality of embedded institutional culture, agential interests, and habitus as important enablers of or hindrances to RPL.

From the foregoing discussion, it can be concluded that the gap between policy and practice persists, and the cost and time required to implement specialised RPL pedagogies like the Portfolio Development Course (PDC) cannot be underestimated (see Ralphs, 2016). Indeed, funding is an important aspect (Kawalilak and Wihak, 2013) of the PDC process.

Apart from cost and time, agential interests of the structural and cultural elite and academic practices as a dispositional issue offer an even more important explanation for slow implementation. This makes it critical to move beyond policy to explore the cognitive structure of the habitus of the whole academy, and the extent to which a flexible academic class habitus is explicitly called for and imparted by policy to institutional actors. It raises the question of how to transition from a class habitus that reproduces misrecognition to a more transformational one. Alongside habitus, this implicates agency in relation to RPL as a specialised pedagogy.

Pedagogic Agency

Navigation of knowledge boundaries, and experiential and codified academic knowledge, is not rooted in the history of institutional structures and patterns of thinking. Moreover, it is a complex process which can neither happen automatically nor through reflection alone (Cooper and Harris, 2013). A unique, specialised pedagogy needs to

be adopted (Ralphs, 2009) to negotiate prior and academic knowledge (Cooper, 2016). Yet, such navigation presupposes the indispensability of transformation of institutional habitus and pedagogic agency.

Pedagogic agency entails active advocacy by “academics who are committed to widen access via RPL” and “play a role in designing diverse pedagogic interventions that are appropriate to purpose and innovative in form” (Cooper and Harris, 2013, p. 14). It is about exercising a certain level of novelty (Archer, 2004) in RPL practices, particularly in the performance and redefinition of roles. Put differently, academics and RPL practitioners have a responsibility to think beyond the constraints arising from curriculum (Sandberg and Andersson, 2011) when processing RPL applications.

According to Breir (2005, p. 59), practitioners should be influenced by, amongst other things, the following factors in their decision-making process on RPL applications: the academic discipline concerned; the way the discipline is structured; relations between non-academic and formal knowledge; and the degree to which pedagogic discourse mirrors the relations. The decision-making process involved in determining the capacity of RPL candidates to succeed (Brenner et al., 2021) is subjective. The implication is that, given that assessors do not always have the appropriate set of pedagogic skills and expertise to assess prior learning (Sandberg and Andersson, 2011), the possibility of injustice is already present. Whether assessors or RPL practitioners do not capacitate themselves and the reasons thereof is an empirical question.

Furthermore, the habitus of practitioners and academics remains a challenge. Predispositions in older academics’ cognitive structures may temper or complement decision making on RPL matters. This explains why one of the participants in History Studies (see Cooper and Harris, 2013) was reported to have evoked an anarchic disposition, rather than an existing rule or the attitude of the class habitus of those in the academic programme, as a reason to support the broadening of access via RPL. However, a favourable disposition to RPL is not a sufficient condition for making appropriate decisions.

Parity of Participation: Why Is It Difficult to Implement?

The first, although not necessarily the most, important challenge to parity of participation is the language of the academy. Indeed, it has its

own language, style, and uniformity (Bourdieu, 1998). Language is a cultural good (Bourdieu, 1986), making “skills in using academically styled *language* an important issue” (Sandberg and Andersson, 2011, p. 9) for success in the RPL process. The language barrier could cause some candidates to drop out (Ralphs et al., 2012, cited in Ralphs, 2016). Thus, applicants require “more comprehensive support and mentoring than the traditional student” (Snyman and van den Berg, 2018, p. 25). This includes making “higher education understandable” (Sandberg and Andersson, 2011, p. 2).

The second challenge is equal representation; assessor and assessee should collaborate as equals without being constrained by learning outcomes and curriculum (Pokorny, 2016) as they both act in ways that shape and enrich taught curriculum. Pokorny sees this as an outcome of a particular pedagogic strategy, dialogic mediation, akin to the pedagogy of hope as envisaged by Frick and Albertyn (2010) since knowledge is co-constructed and potentially transformed. It follows that other knowledge forms cannot be properly navigated and articulated by relying on checklists and rigid, pre-meditated dialogue because this prescriptive approach undercuts deep exploration of the RPL candidate’s knowledge and the possibility of enhancing academic knowledge and curriculum (Kawalilak and Wihak, 2013). While arbitrary practices are not advised, practitioners need to avoid rigid and prescriptive practices that can foreclose space for adequate submission and nuanced pedagogic assessment of knowledge claims.

Candidates benefit from the use of creative RPL practices. One study found that RPL candidates that underwent a PDC performed marginally better than those admitted via standardised admissions tests (Ralphs, 2016).

Overcoming language barriers and ensuring equal representation during assessment of prior learning calls for a pedagogy that fosters mutual understanding between assessor and assessee for a fair and valid RPL process (Sandberg and Andersson, 2011). Such a pedagogy should start from common understanding between these two agents (Pokorny and Whittaker, 2014). However, this model has not yet been deeply entrenched in RPL practices (Kawalilak and Wihak, 2013), begging the question of why? Drawing on his “two principles of differentiation ...: economic and cultural capital”, Bourdieu shows that the quantity and

quality of the capitals possessed by agents in a social space [and these spaces may have different logics of practice] and their proximity determine the extent of their mutuality (Bourdieu, 1998, p. 6). The two knowledge sites in question differ markedly in stature and power, and their inequality can compromise mutual understanding and equal participation.

In the context of RPL processes, inequality in engagement arises first, not from the assessor holding power in relation to those assessed *per se*, but from the historical injustice immanent in the institutional make-up in terms of which assesseees with devalued non-academic capitals come to rely on institutions that possess the capital forms they require to increase their economic and cultural capital. When prior learning remains devalued during assessment, this represents an injustice, and “overcoming injustice means dismantling institutionalised obstacles that prevent some people from participating on a par with others, as full partners in social interaction” (Zurn, 2012, p. 167).

Thus, for example, where lecturers privilege theory (general principles) over practice and students value practice (particular experiences) over theory (see Breir, 2005) during dialogical pedagogic approaches, parity of participation cannot be fully realised. Pedagogic rigidity in relation to crossing knowledge boundaries needs to be kept in check, as does the fact that the assessors of this crossing represent institutional power and are accountable to a class of academics who ratify or obstruct RPL decisions.

An RPL practitioner should consciously recognise this issue and circumvent its constraining power during interaction with applicants by means of critical reflection in and on his/her RPL practices and processes. Bourdieu illuminates why such recognition is not easy. In practice, what is active is the habitus of both agents that is not operating in a fully conscious state. As Breir’s (2005) study shows, the differences in their habitus manifest in privileging one’s (the academy’s) knowledge site. Such privileging is inherent in the cognitive structures of the academy and some of its members as much as in the power of RPL practitioners.

Crossing over Knowledge Forms; Flattening Power Differentials

Power differentials are implicated in the foregoing discussion. In relation to the PDC, Shalem and Steinberg (2006) claim that both assessor and assessee are in some position of powerlessness because of the

multifarious forms of pedagogy involved in assessing prior knowledge. Assesseees know little or nothing about higher education (Sanderberg and Andersson, 2011); the academy does not have deep knowledge of how to assess prior learning (Kawalilak and Wihak, 2013), and assessors are predisposed to standard understanding of portfolio development in academia (Shalem and Steinberg, 2006).

However, their powerlessness is not equal but proportional to the capitals their knowledge sites possess and their personal agency during dialogic mediation. Differently put, the power of assessors is largely determinative in the final analysis. It can occur in a subtle paradoxical way (Sandberg and Andersson, 2011), when they lack pedagogic strategies to assess and extract prior learning from an RPL candidate or when applicants who lack the required linguistic capital do not properly articulate such learning (Kawalilak and Wihak, 2013). Assessors falling in this category may respond to their inadequate pedagogic agency by falling back on the familiar rigid pedagogies related to portfolio development in the academy.

Although it is a disadvantage for candidates, if this real possibility is recognised and properly dealt with by an RPL practitioner, assessors and assesseees can “possibly develop more creative recognition processes” (Sandberg and Andersson, 2011, p. 4). If and once *proportional* (not equal or horizontal) powerlessness is identified, RPL practitioners should begin from a premise of scepticism about the extent of their knowledge during a reflective dialogical process with assesseees.

Scepticism is at play when assessors push their pedagogical authority to the background during the development of a candidate portfolio (Shalem and Steinberg, 2002), thus flattening assessor-assessee power relations (Osman and Castle, 2002).

Clearly, an academic habitus rooted in old notions of pedagogy and assessment cannot achieve this demand; only agency which challenges it can do so. Ralphs (2016) shows that the historical trajectory and culture of those involved in the design of a PDC is critical to the kind of artistry required in RPL practices. Hence, the study found that the PDC design changed with the arrival of a new team with a different habitus.

As noted earlier, mutual understanding is not yet entrenched, begging the question of how this can be achieved in the academy. Frick and Albertyn (2010) appeal to Freire’s notion of *dialogue* that is horizontal

between assessors and assesseees, seeing this process as emancipatory because it humanises and vindicates the applicant's being/life work and experience. Some studies have found that participants validate the importance of this assertion (Ralphs, 2016; Kawalilak and Wihak, 2013). However, assessors need to have appropriate and sufficient capital to humanise the dialogical space on the one hand, and obtain the buy-in of the department and faculty on the other, otherwise they can face the risk of losing their social capital to advocate for RPL, and this might impact the exercise of their agency.

Fraser's theorisation helps to illuminate that dialogic mediation is plausible if assessors and assesseees perceive each other as equals and if the institutional set-up enables such equality. This does not mean the absence of institutional authority, but rather acknowledgement of the ways in which it can be used during prospective assessment (see Shalem and Steinberg, 2002). Indeed, authority will always be present when assessors guide the conversation which must, in principle, also guide them. Such authority should not mean transmitting to RPL candidates (Osman and Castle, 2002). Nonetheless, the risk of transmission is present, depending on an assessor's disposition.

This implies a need for open-minded assessors who are alive to this possible injustice during dialogical reflections, and raises the empirical question of whether this is possible and the extent to which it can be achieved among academicians in light of the culture and history of the department and faculty noted by Cooper and Harris (2013). Suffice to posit here that open-mindedness is more beneficial when one's pre-disposition is aligned with the social justice imperative. To complicate matters, and this is a large part of the fundamental challenge this article seeks to elucidate, the decisions of (even the most open-minded) assessors are subject to the scrutiny of their class habitus (relevant to an academic discipline and faculty) that is not embedded in the specific discipline or programme at hand or in RPL discourses and practices. As the following sub-sections show, the result is RPL's success or failure.

The analysis of the sample of empirical literature below shows the strong presence of both habitus and agency among RPL practitioners. Nuanced analyses reveal the vitality of individual and collective habitus, including how personification of roles can depend not only on individuals' rigidity or flexibility, but also on the role played by the

volume of their capital in mobilising support for their RPL positions. Scholarly work presents examples where class habitus prevails either in opposition to or support of RPL.

Cooper and Harris (2013) found that Nursing Studies were more amenable to and habituated in the practice of RPL. Institutional disposition towards RPL, informed by its historical trajectory, influences the kind of artistry touted by Ralphs (2016). The Workers' College is oriented towards beginning from experience in order to inform and enrich the academy (Ibid.). This engenders a reflective, critical disposition among facilitators in relation to the dominant knowledge of the academy. In this instance, RPL flourishes because the academic class habitus is as attuned to it as a fish is to water (Bourdieu, 1990).

However, Cooper and Harris (2013) also found that some RPL decisions were approved in the department of Media and Film but not in the faculty. The finding is consistent with Starr-Glass' (2016, p. 9) assertion that "Often, the reluctance to accept and recognise credit for prior learning is strongest within the faculty", with its worth being questioned (Wong, 2011). The problem is that faculty is usually distant, seeing itself as subject-matter experts without being directly involved and fully immersed in the practice of RPL.

Another example of class habitus arises in the Master of Education. Here Cooper, Harris, and Jones (2016, p. 41) found "negative or even hostile attitudes towards RPL", skewed towards increasing its cultural capital as being a research-focused programme (Cooper et al., 2016), which implies competing with other high-ranking institutions in research (Patman and Vidovich, n.d.). An RPL decision was rejected at the departmental level in the Master of Education, causing the programme leader to refrain from promoting RPL, reasoning that the academic class would turn the recommendation down anyway (Cooper et al., 2016). Here, class dispositions can be seen to influence whether agents can personify roles in certain ways that advance RPL.

The programme leader in this case was faced with what can be described as the convergence of ideational and structural interests (Archer, 2004) on the part of the department, with the class habitus of academics accounting for why departments and faculty sometimes block access via RPL despite the evident success of candidates admitted through this mechanism (Cooper and Harris, 2013).

It also stands to reason that when assessors perceive their social and cultural capital to be low in proportion to the members of their class to which they are accountable, the way RPL applications are processed may be disadvantaged. Thus, faculty and the department's commitment to RPL proves more important for the success or failure of RPL than the commitment of a practitioner or RPL committee.

Contrary to class habitus having a mechanical influence on individual actors, a single individual with personal conviction and commitment to RPL can take on the established class habitus in ways that create a precedent for its advancement. A case in point is the University of KwaZulu-Natal's Graduate School of Business where the admission of seven MBA non-formal degree holding candidates caused a fracas at faculty level before it was accepted (see Singh, 2011). This required more than proof that the applicants had valid knowledge. The advocate for RPL required capital that was recognised by members of the class as legitimating his active advocacy. His success also demonstrates evolving openness to the imperatives of access, equity, and redress in the academy, no matter how slow – as Bourdieu theorises, a habitus itself gradually changes.

Conclusion

Critical theoretical interrogation of the literature shows that, while it is the right thing to do, policy change on its own does not lead to change in deep-rooted ideas in the academy about the value of RPL, nor does it lead to commitment to RPL pedagogies. Instead, it may be a strategy by structural elites in the face of ideational contradictions, structural interests, and external pressure. The academy needs an RPL-inclined class habitus across academic disciplines. It has also been shown that practice is governed by and influences habitus, and that RPL practitioners have to overcome the power imbalance during the processing of RPL applications.

However, analysis has shown that the cultural capitals of RPL assessors are different from the applicants on the one hand, and those of the collective members of the academy on the other. As such, they have to grapple with the fact that a class of academics sits at all institutional levels to determine the ultimate fate of RPL applicants. Taking into account that RPL is not well known or understood by both practitioners and academics (Kindred, 2018), this creates the possibility of continued

injustice. This possibility must be averted. But how?

Through critical reflection on its habitus (Kawalilak and Wihak, 2013), the academy can come to see slow progress in the implementation of RPL, and the dominance of the academy's ideas on what counts as knowledge during RPL processes, as a product of long years of its own socialisation in and internalisation of particular ways of relating to externally produced knowledge can change.

Simultaneous with reflection, all academics and relevant administrators need to be fully capacitated on RPL as a unique pedagogic device. To create the conditions for structural change and changes in practice in the field, and to advance pedagogic agency, this should not be rudimentary, but systematic and prolonged until it forms itself as a logic of practice. Reflection would help the actors recognise the repressed fundamental assumptions (Kawalilak and Wihak, 2013) operating in their unconscious that they unwittingly take for granted (Bourdieu, 1990).

The literature reveals the need for common understanding between the assessor and assessee for RPL to succeed (Sandberg and Andersson, 2011). Common understanding is preceded by and is an outcome of critical reflection by actors at all institutional levels, particularly at university faculty level (Starr-Glass, 2016). Reflection needs to take the form of explicit pedagogy (Yang, 2014). That is, it needs to be deliberate and specific as a means of re-socialisation of the current habitus of the academy.

In this way, the possibility of transitioning to a refined habitus can take shape. After all, due to its malleability, habitus does incrementally but not radically change and adapt within the limits of its categories of thought (Bourdieu, 2004). However, change takes time, and Bourdieu does not set a precise time period for it to happen. Archer (2004) suggests that change occurs when agents have amassed sufficient power and are consciously organised in pursuit of their interests. For Bourdieu (1986), such power is immanent in economic, cultural, and social capital to redefine the stakes in the academy as the UKZN RPL advocate has shown (see Singh, 2011).

Bourdieu's view that change is also affected by the rigidity or flexibility of a member of the structural elite helps the critical reflective process to interrogate these and other qualities of individual actors. It is plausible to contend that if those with much social and cultural capital

are also rigid in relation to changing their RPL attitudes and stereotypes, perhaps because of their vital material and intellectual interests, culture is reproduced and the social justice imperative remains out of reach.

In the final analysis, honing the habitus of the academy via a deliberate process of different re-socialisation of the old habitus provides a gateway to possible internalisation of new ideas about RPL. In this way, institutions can be inclined to move beyond just policy making but also towards changing practical institutional inhibitors using individual and group agency, while employing RPL pedagogic devices that advance RPL as a social justice imperative within the notion of knowledge difference as the prevailing idea.

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