

DISPARITIES IN RURAL UNIVERSITIES TRANSFORMATION: A REVIEW FROM A SOUTH AFRICAN PERSPECTIVE



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Abstract

In recent years, the South African government has placed a greater emphasis on transforming rural universities. This has been driven by a desire to increase access to higher education and improve the quality of education in rural areas. However, this process has not been without its challenges, among which is the fact that rural areas tend to be less developed than urban areas, making it difficult to attract and remain in the fulcrum of development. This paper is grounded in an Asset-Based Community Development (ABCD) approach toward transforming rural universities in South Africa. A systematic review approach was employed to investigate the problem, which enabled the researchers to draw logical conclusions from the findings of exhaustive literature to address the problem of the paper. After systematic scrutiny, inclusion and exclusion criteria were operationalized by limiting it to 8 relevant articles. The databases used were Google Scholar, ResearchGate, Scopus, JSTOR, ScienceDirect, Web of Science, and Education Resources Information Centre (ERIC). Findings revealed that Inequality, Poor physical infrastructure, and Lack of Information and Communication Technology (ICT) infrastructure and training support in Rural Universities were dimensions against rural university transformation in Africa. The paper, therefore, concludes that rural universities (RUs) are grappling with several challenges thwarting their efforts in delivering quality teaching and learning with the recommendation that adequate infrastructure, policy change, and provision of academic support for students should be provided.

1. Introduction

Post-apartheid education has expanded the tentacles of higher education to bridge the gap between historically underprivileged populations who were marginalized in society. The United States of America and South Africa have both experienced racial segregation, which has resulted in educational inequities. Both countries are working to improve access to quality amenities for citizens in their respective countries (Kurtz et al., 2022). Rural universities (RUs) were historically black-segregated institutions in the hinterlands (Subotzky, 1997). Higher education institutions (HEIs) in rural communities are facing complex challenges ranging from quality teaching and learning to infrastructure development (Dipitso, 2021; Damoah & Adu, 2019). This has calibrated South Africa's higher education trajectory. Badat (2004) intimated that South Africa had 21 public universities, 15

Technikons, and 120 colleges of education. In 2001 Teachers' colleges were absorbed into universities and Technikons (Robinson & McMillan, 2006), whilst Technikons were merged to form autonomous institutions to accommodate many students (Kenny & Davids, 2022).

As a result, universities were established in rural areas to avoid the huge movement of students to urban areas to pursue higher education (Bouhey & McKenna, 2021). South Africa has eight historically disadvantaged rural institutions, including the University of Fort Hare, Walter Sisulu University, University of Venda, University of Zululand, University of Limpopo, Sefako Makgatho University, and the University of Western Cape (Minister of Higher Education, 2019). Apart from these, nearly all provinces have one or two rurally located universities; even

those located in the urban areas also have satellite campuses situated in previously disadvantaged areas. These HEIs face several issues that influence efficient teaching and learning as well as robust academic research (Ramaswamy et al., 2021).

Access to high-quality education is the surest road to national progress (Daniel, 2010). To satisfy the expectations of the Fourth Industrial Revolution (4IR), HEIs should have a solid academic system (Sudan, 2021). To keep up with the pace of worldwide education standards, most South African institutions have undergone multiple drastic modifications (Cloete, 2016), whereas their rural counterparts are lagging (Soudien, 2020). The purpose of establishing RUs is to generate human capital for the acceleration of national development and to fulfill community-based developmental needs. Rural students' access to higher education is viewed as a tool to reduce poverty (Cloete, 2016). One of the most important goals for rural universities is to eliminate illiteracy by making higher education more appealing to students living in such communities. Unfortunately, such universities are susceptible in their pursuit of high-quality intellectual output (Minister of Higher Education, 2019), including adequate resources to implement 4IR that necessitates that every institution is appropriately resourced to integrate technology into teaching and learning (Yusuf et al., 2020). In an era of robotics, artificial intelligence, the Internet of Things, 3-D printing, nanotechnology, biotechnology, material sciences, and others (Williams, 2021), education inequality must be addressed urgently to avoid the repeat of the imbalances created by the apartheid regime (Damoah & Adu, 2020).

The COVID-19 pandemic has worsened and highlighted inequities in rural institutions (Boughey & McKenna, 2021; Damoah & Omodan, 2022). Most of the country's universities have adopted the blended teaching and learning model. This method necessitates the utilization of both in-person and online instruction. However, most students in remote institutions are failing to adapt to the new trend (Mutongoza, 2021). RUs have significant internet connectivity challenges, and as a result, students in such institutions are disadvantaged (Ajani & Gamede, 2020). Considering the abject poverty rate and other socioeconomic issues (Uleanya, 2022) in such areas, students could not afford to acquire data and online learning tools (Mutongoza, 2021). Due to a lack of infrastructure at these remote institutions, many students have been forced to live off-campus (Minister of Higher Education, 2019), exposing them to various societal vices such as rape, robbery, terrible student accommodation, and poor internet access. Those who reside off-campus in rural areas do not have access to the internet provided by institutions on campuses (Magedi & Rakgogo, 2021), rendering them immobile in this modern era of post-COVID

integrated teaching and learning in South African higher learning institutions. Failure of university administration to keep up with the needs of rural students has left such institutions more vulnerable to student unrest, which has interrupted academic calendars in many institutions. Student unrest is unusual in South Africa's well-established universities (Damoah et al., 2023; Godsell et al., 2016).

The academic support systems are barely noticeable in RUs (Damoah & Omodan, 2022). The Digital transformation necessitates immediate action to address the problems that have hampered the expansion and development of rural institutions (Dipitso, 2021). Based on this, the Asset-Based Community Development (ABCD) Approach is imminent to transform rurally located universities in South Africa. To adequately transform a rurally located university, the paper explored a systematic review of relevant studies conducted on rural institutions' transformation in South Africa by harnessing their findings and recommendations.

2. Research Questions

The issues mentioned above led to the formation of the following research question:

How can South Africa's rural universities transform to meet 4IR educational and developmental needs?

2.1. Objectives

The following objectives were formulated based on the research question to guide this paper:

The paper presents a compelling case for the need to transform rural universities in South Africa. The findings are significant and offer valuable insights into the challenges and opportunities faced by these institutions.

3. Methods

We adopt Asset-Based Community Development (ABCD) to underpin the paper. The ABCD approach is a community-led development process that builds upon the strengths and assets of individuals, families, neighborhoods, and communities (Haines, 2014; Mathie & Cunningham, 2003). ABCD practitioners work with community members to identify and assess their assets, build upon their strengths, and develop action plans that address identified needs and problems (Ennis & West, 2010; Mathie & Cunningham, 2005). This approach has its roots in the work of community development. Community development should focus on building upon the strengths and assets of residents rather than simply addressing needs and deficiencies (Omodan et al., 2018; Walker, 2006).

The ABCD approach has been successfully implemented in a variety of communities around the world and is increasingly being recognized as an effective way to build capacity and empower residents. Based on the approach, we argue that the critical principles of ABCD are: 1) identifying and building on community assets, 2) involving community members in decision-making, 3) encouraging collective action, and 4) promoting sustainable change. These principles provide a framework for community members to work together to identify and address their needs. In many cases, the ABCD approach has proven more effective than traditional top-down approaches in bringing about positive social change, which is not a different case to the need for rurally located universities to adopt using their inner deficiencies as a strength to improve their productivity (Forrester et al., 2020; MacLeod & Emejulu, 2014).

This approach is relevant because it has the potential to transform rural universities in South Africa since it emphasizes the need to build on existing community assets and strengths rather than focusing on deficits and needs. This asset-based approach has been successfully applied in various settings, including rural communities (Boyd et al., 2008; Feldhoff, 2016; Nel, 2015). So, in South Africa, the ABCD approach could help rural universities become more relevant and responsive to the needs of their local communities (Damoah, 2023). By employing the assets and resources of rural communities, universities can play a vital role in promoting economic development and social transformation. Therefore, the ABCD approach offers a promising model for rural universities seeking to create positive change in their communities.

The paper requires critical scrutiny and synthesis of in-depth literature on the transformation of rural universities in South Africa to find answers to the phenomenon under investigation.

We adopted the systematic review approach to unpack past studies of interest. This approach allows researchers to use inclusion and exclusion criteria to find appropriate and related past research that is consequential to the researcher's interest (Linnenluecke et al., 2020). We used the approach to collect and summarize evidence per the scope of the paper (Tawfik et al., 2019). The approach enabled the researchers to draw logical conclusions from the findings of exhaustive literature to address the research question. As a result, it minimizes biases and enhances data reliability and credibility (Linnenluecke et al., 2020).

Furthermore, we used four basic steps to review the literature systematically. These procedures include planning on which database to use, identification of literature through search engines for inclusion, analysis, and synthesis, and illustration of findings. We then used the inclusion criteria to refine the relevant literature needed to answer the research question.

3.1 Concentric Inclusion criteria

The inclusion criteria demonstrate which literature falls within the scope of the paper (Stern et al., 2014). The inclusion technique was used to determine literature that was relevant to the paper. The parameters that were used include a) date of publication; b) peer-reviewed articles; c) full articles excluding abstracts only papers; d) geographical location; and e) type of publication as demonstrated in Figure 1. We designed our search tool, Concentric Inclusion Criteria (CIC), and article selections were confined within the CIC. The initial search began with the date of publication of articles and then filtered to peer-reviewed articles related to rural universities in South Africa. Figure 1 illustrates the inclusion CIC tool developed for this paper.

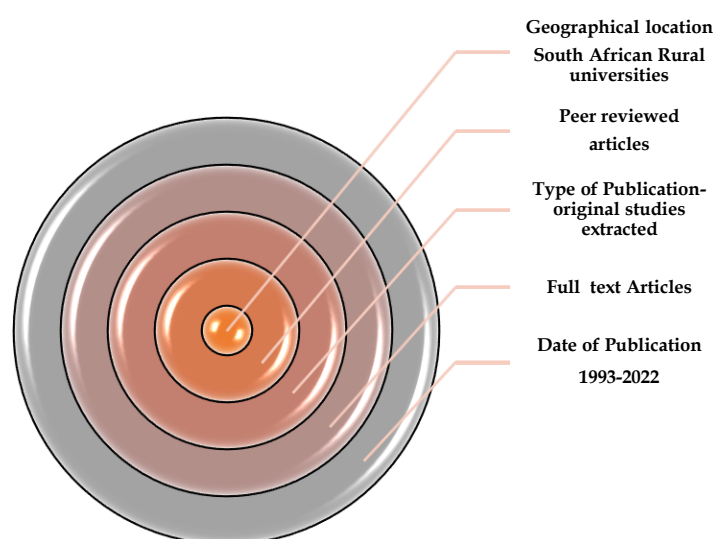


Figure 1. Diagrammatic view of concentric inclusion criteria designed for the paper.

On the concentric inclusion criteria, the publication date was crucial to the review process. We searched for articles from 1993 to 2022. The reason for selecting these dates was to understand the transformational trajectory of rural universities in the lead-up to 2022, the end of the apartheid regime, and the post-apartheid ANC-led government. The paper extracted articles from peer-reviewed papers to ensure data accuracy and reliability. To properly assess the literature, we considered full-text articles with detailed information. The type of publication was critical in the selection of literature. Many original or empirical studies were extracted from many others. Newsletters were excluded from the review. Lastly, the paper's geographical location and setting were critical in searching for credible data. We considered articles focusing on rural universities in South Africa conducted on rural university campuses. We focused on studies in areas like the Eastern Cape, Western Cape, KwaZulu Natal, Northern Cape, and Limpopo, where rural universities are located. The concentric inclusion criteria we adopted helped the paper extract significant data points.

3.2 Selection Criteria

The screening standards were derived from Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).

The methodology is a simple set of criteria based on evidence that aims to help scientific authors publish a range of systematic review research (Shamseer et al., 2015; Damoah & Omodan, 2023). The databases used to extract articles for the paper were Google Scholar, ResearchGate, Scopus, JSTOR, ScienceDirect, Web of Science, and Education Resources Information Centre (ERIC). The search was mainly based on educational research journals. In the search for the appropriate article, we searched for Transforming Rural Universities in Africa, which was then rephrased to Transforming Rural Universities in South Africa to fish for literature based on South African perspectives on rural higher education. We then continued the search with words like disparities in South African universities, challenges in rural universities, restructuring rural higher education in South Africa, and rural-based universities in South Africa to extract articles from the database. A further step was to examine the titles of all the papers carefully. The same technique was then used to retrieve relevant articles from the abstract to the body. Lastly, the paper's complete texts were reviewed for appropriateness to the paper. The data for analysis were retrieved from the eight articles that met the inclusion criteria for the systematic review (Tawfik et al., 2019). The flow chart below shows the systematic review process that led to the retrieval of relevant data for the paper.

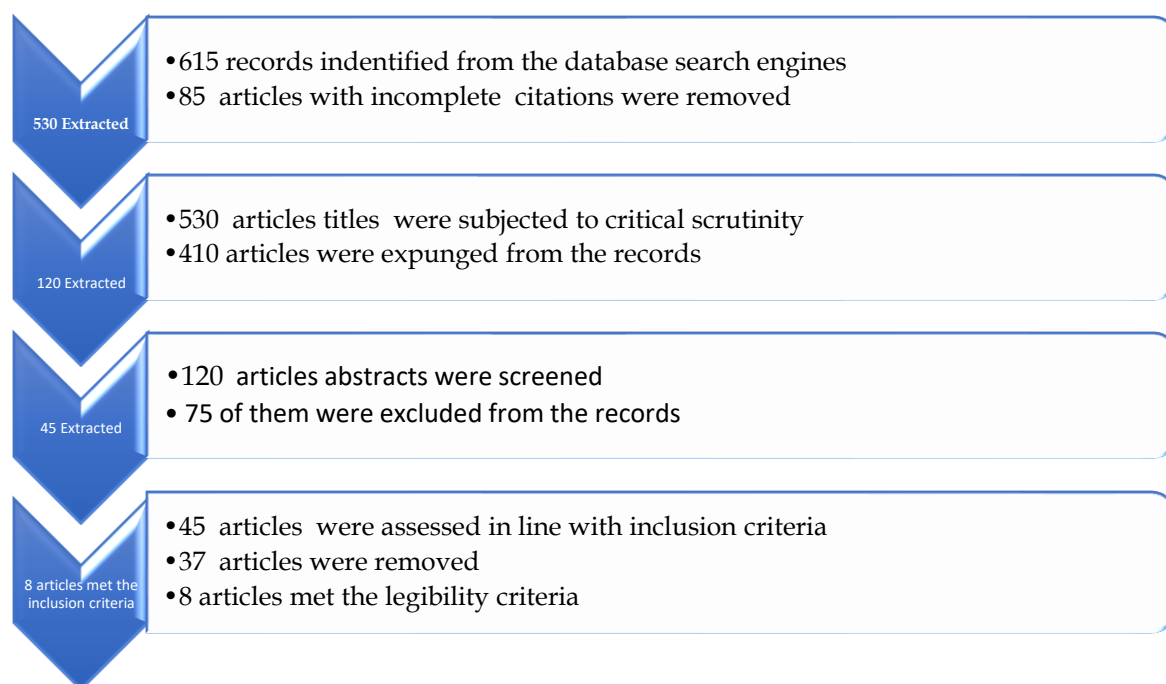


Figure 2. Modified PRISMA flowchart of articles and records selected for the paper.

The articles we used for analysis were mainly from quantitative, qualitative, and document perspectives. The data for these articles were collected through questionnaires, interviews, and

observations. The evidence in the table gives detailed information about the eight articles selected for the review.

Table 1. A systematic review of eight articles.

	Author(s) & date	Title	Design &Methods	Key findings related to the study
1	Uleanya (2022)	Rural undergraduate university students' learning challenges in Africa: case study of Nigeria and South Africa	Quantitative Case study Questionnaire	Poor infrastructure, Campus unrest, poor funding and management, insecurity, inadequate ICT infrastructure, lack of social support services
2	Uleanya et al. (2020)	Rural and irrelevant: exploration of learning challenges among undergraduates' rural universities	Quantitative Case study. questionnaire	Lack of internet facilities in and around campuses, lack of basic infrastructure and poor student-lecture ratio.
3	Badat (2004)	Transforming South African higher education, 1990-2003: goals, policy initiatives and critical challenges and issues	Document	Inequalities in HEIs Diversification of HEIs
4	Subotzky (1997)	Redefining Equity: Challenges and Opportunities Facing South Africa's Historically Black Universities Relative to Global and National Changes	Qualitative, interview	Low research outputs; Innovative teaching methods; Lack of requisite skills and confidence to conduct research; lack of funding and infrastructure
5	Scott et al. (2019)	Transformation of higher education institutions in post-apartheid South Africa	Book	Free and lower tuition fees, new and updated infrastructures, updated m facilities; new technological equipment; inadequate funding, student accommodation Restructuring of higher education
6	Nkomo et al. (2007)	Rural-based universities in South Africa: Albatrosses or potential nodes for sustainable development?	Qualitative, interview documents	Contribution to sustainable development; Serve as a catalyst to rural development; Restructuring of higher education
7	Dipitso et al. (2021)	Higher education post-apartheid: insights from South Africa	Book review	Inequalities affects teaching and learning social structures influence student success
8	Mutongoza (2021)	Swim or sink': Student and lecturer experiences of emergency online learning at a rural university in South Africa	Qualitative case study & Survey	ICT support Challenges & lack of support structures Facilities not disability friendly

We established that RUs had undergone a radical paradigm shift in the post-apartheid era (Nkomo et al., 2007; Scott et al., 2019).

4. Results & Discussion

The key findings from the paper indicate that several factors are hindering the transformational trajectory of RUs in South Africa.

4.1 Inequalities in Post-Apartheid Rural

Universities

Inequalities in post-apartheid rural universities are one of the dominant challenges of rural universities, as indicated in the above findings. From 1948 to 1994, under the apartheid regime, RUs were institutions marginalized to serve the interests of the black population. This led to the enactment of the Bantu Education Act, which deepened and institutionalized racism (Albertus, 2019). This deprived the black population of access to quality education (Klasen, 1997). The pre-1994 education system was structured to undermine people based on ethnicity and race. Historically, white minority institutions were adequately resourced at the expense of many black institutions (Badat, 2004). These historical inequalities could be traced in this age to the various RUs across the length and breadth of this rainbow nation. Post-apartheid Education White Paper 3 of 1997 was issued to transform HEIs to address the inequalities that existed in the past (Badat, 2004). The transformational agenda urged all HEIs to eliminate all forms of discrimination in all public institutions and promote equal access to education; equity, redress; quality; development; democratization; academic freedom; institutional autonomy; effectiveness and efficiency; and public accountability anchored on non-sexist and non-racist principles (Scott et al., 2019; Badat, 2004).

The following were some of the many and very varied social reasons that HEIs must advance, as stated in the White Paper of 1997: a) Pay attention to urgent local, regional, and national demands in South African society, as well as issues and difficulties in the larger African context. b) Lifelong learning maximizes human skills and potential to contribute to a rapidly changing society's social, economic, cultural, and intellectual life. c) establishing a critical civil society with an open discourse and tolerant climate that accepts diversity and competing interests. d) Improving the nation's businesses, services, and infrastructure by training and providing labor. This necessitates the development of professionals and knowledge workers with internationally comparable abilities who are also aware of their social responsibility and role in social transformation (Badat, 2004). Badat (2004) further asserted that White Paper 3 recommended curriculum restructuring to drive the transformational agenda of the HEIs.

In the current democratic dispensation, structural inequalities persist after 28 years of freedom (Tshishonga, 2019) in HEIs in rural communities. This has hampered the growth and development of RUs in South Africa. In an era of 4IR, RUs are left behind in this transitional period of advancing to a new technological age. The institutions in rural areas need to build and improve on the strides made to address the education system's

imbalances (Forrester et al., 2020). The geographical location of RUs makes them black-dominated institutions. Most students from less privileged backgrounds are enrolled. Subotzky (1997) argued that this has heightened elements of inequality and inferiority complexes in the education system. To address this vulnerability, RUs must redefine and diversify the scope of academic programs to embrace students from different racial orientations.

4.2 Poor Physical Infrastructures in Rural

Universities

Poor physical infrastructure is one major issue affecting the RUs' transformation (Uleanya, 2022). These institutions are predominantly located in rural areas with limited resources. Inadequate lecture theatres and student accommodation have been a setback (Ebehikhalu et al., 2016). Uleanya (2022) intimated that RUs are grappling with poor student residences and insufficient campus water and electricity supply. This has contributed to significant student drop-out from institutions confronted with these challenges. Refurbishing outdated facilities is needed to enhance effective teaching and learning (Scott et al., 2019). The unavailability of student residences has forced many students to live off-campus (Mafumbate et al., 2021). Limited infrastructure (Netshakhuma, 2019) has made most RUs cut down on the intake of undergraduates. Students live in dilapidated and sub-standard private residences in the communities where the RUs are situated. These communities lack basic social amenities like water and electricity. This has a direct impact on students living in such rural communities. The existing facilities in most of the RUs are not disability-friendly, which is an albatross to inclusive education (Mutongoza, 2021).

4.3 Lack of ICT infrastructure and training support in Rural Universities

One of the critical findings established in this paper is the lack of information and communication technology. The scarcity of ICT resources in RUs impacts the rate at which students learn in rural universities. ICT drives the developmental and transformational trajectory of 4IR in HEIs. The emergence of the COVID-19 pandemic has re-echoed the need to address the existential ICT gaps in the RUs. In these modern times, an uninterrupted ICT infrastructure is critical in the educational environment. Institutions in the RUs category are primarily located in the hinterlands, where there is unreliable access to the internet and network coverage (Damoah & Omodan, 2022; Adnan & Anwar, 2020). This has hindered students from coping with the current trend of technologically infused education systems (Miller et al., 2000). ICT facilities like computers, laptops, Smart LED touch screens, and overhead projectors at public institutions are

woefully inadequate (Kulkarni, 2016). The level of poverty in these marginalized rural communities makes it extremely difficult for students to afford personal laptops and other ICT gadgets. The unreliability of NSFAS funding (Wangenge-Ouma et al., 2008) has aggravated the pain of poverty in these RUs because students rely on their bursaries to acquire such ICT devices. There is no ICT training support for students and lecturers in RUs. The findings of a paper indicated that a range of technological drawbacks hampers the adoption of online learning at RUs. Lack of skills and training for online learning and policy gaps in the digital sphere have debilitated competence in RUs (Mutongoza, 2021).

Tadesse and Muluye (2020) asserted that students in rural areas are not well equipped to use the various online platforms adopted for blended teaching in universities. It is established that RUs prefer conventional teaching to the new normal teaching approach at HEIs because they are unfamiliar with the new era of 4IR (Delpont et al., 2020). The world is changing rapidly and tilting to a new dawn where e-learning is becoming increasingly important in education development (Choudhury & Pattnaik, 2020). As a result, many ICT facilities are required (Uleanya, 2020). Meanwhile, relative to the available ICT resources, the student population makes it impossible to cater to all students in RUs.

5. Conclusions and Recommendations

South Africa has articulated its higher education principles, goals, and regulations during the previous decade and devised a comprehensive reform program. This agenda is a response to its apartheid historical experience, new economic and social objectives, and globalization. Numerous actions have been initiated in various disciplines, including legislative amendments, new regulatory frameworks, policy formation, adoption, implementation, and assessment. New institutional frameworks have emerged to oversee HEIs. Fundamentally, HEIs have been in upheaval, putting national authorities, RUs, and players to the test. There have been both policy, strategy, and implementation successes and failures. However, it is too early to declare the transformation's success or failure. RUs are grappling with several challenges thwarting their efforts to deliver quality teaching and learning (Khalo & Damoah, 2023). This paper explored factors that hinder the transformational trajectory of RUs in South Africa. The variables discussed range from the existence of inequalities in the HEIs, poor physical infrastructures, and lack of ICT infrastructures and support systems. Several articles and documents were systematically perused to arrive at the above conclusions.

- Adequate infrastructure should be accessible to support teaching and learning activities in Rural

universities. The government should provide sufficient funding to expand rural university student residences, lecture theatres, and libraries. This will promote quality in teaching and learning activities, hence improving student learning performance.

- The historical deficiencies and inequalities in HEIs require radical policy change. Rural universities should be resourced to meet the needs of current global educational expectations. There should be a fair and balanced allocation of funding to rural institutions. The Department of Higher Education and Training (DHET) and the Council on Higher Education (CHE) should channel adequate funds and resources to rural universities to bridge the gap of inequalities in post-apartheid.
- There are several issues with many African nations' present higher education curricula, making curricular decolonization an obligation rather than a political choice. Decolonization is based on the idea wherein Africans seek curriculum reforms and the ability to establish and implement their ideas, development goals, strategies, and plans as free people in their very own nations. The DHET and CHE should consciously review the current curriculum of HEIs to inculcate African beliefs and ideas into the education system based on Ubuntu.
- There should be an expansion of ICT infrastructures in all rural universities. Authorities should provide adequate technological gadgets that support interactive online teaching systems. Internet networks should be extended to university and private student residences to enhance effective learning on and outside campuses.
- Students should be given academic support through mentorship and coaching on the use of technology. Students should be oriented and trained in using modern educational tools to support teaching and learning, this will adequately prepare the young generation to embrace the demands of the fourth industrial revolution(4IR).

The ABCD approach must establish a meaningful connection with the communities in which these RUs are located. The transformation that is required goes beyond mere adherence to national educational policies. Damoah and Adu (2022) contend that, by collaborating with stakeholders, opinion leaders, religious organizations, and other non-governmental organizations within our communities, we can collectively make a significant impact in supporting these underprivileged institutions to achieve a sustainable education trajectory.

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