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Chapter 1
Teacher Education in South Africa: Transformation from Apartheid to Democratic Intentions

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In this chapter, we examine the notion of teacher education in South Africa, exploring its roots in the highly contentious and divisive era of Apartheid and the changes that have taken place since the attainment of democracy in 1994. We argue that teacher education is central to the training and education of good teachers, who are the key custodians of quality education. We further suggest that the transformational ambitions of the post-democratic government have only been achieved to a limited extent in teacher education. Much of the transformation has been symbolic, in terms of new policy formulations aimed at expanding the access of previously disadvantaged groups of university aspirants to teacher education programs. The same effect is observed with respect to the revised funding formulas designed to enable poor students to surmount financial barriers hindering their participation. Despite these important changes, the curricula and pedagogies of teacher education have largely remained unchanged, leading us to conclude that the fundamental epistemic injustices of the past continue to be reproduced and entrenched in South Africa's teacher education programs.

The chapter begins with a conceptual discussion of various ideas surrounding colonization, decolonization, coloniality and decoloniality to lay a foundation for understanding the argument about the sheer symbolism post-democratic transformation. It then discusses the highly divisive nature of apartheid teacher education before analyzing a range of transformative discourses and drivers in the post democratic dispensation. The chapter concludes by suggesting a need to move beyond symbolism and to begin questioning epistemic issues of the curriculum and pedagogies of teacher education in South Africa.

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1 Introduction

Teacher education is at the heart of the success and effectiveness of schools in any country (Bush, 2019). One factor that contributes to successful school systems and learner outcomes is the availability of good teachers. These are products of teacher education through both the in-service and pre-service programs. Evidence suggests that good teachers constitute the greatest influence on the success of schools and learner outcomes (Darling-Hammond, 2007). In this chapter, we look at the historical development of teacher education in South Africa, its current state, and the opportunities and challenges it faces. We argue that teacher education in South Africa, like the rest of the university sector, continues to be based on colonial structures that are ill-placed to confront the context-specific challenges it faces. While substantial transformation has taken place since 1994, the year South Africa replaced its Apartheid government, little has happened to change the curriculum of teacher education. We argue in this chapter that if the curriculum remains unchanged, everything else represents a superficial transformation. We begin by briefly discussing notions like colonization, decolonization, coloniality and decoloniality to establish a basis for this argument.

2 Colonization and coloniality

Colonization was part of the empire-building project, which was carried out for economic, religious, and military reasons largely by the industrializing nations of Europe. Colonization means the occupation of and rule over another country to expropriate its resources. The so-called 'voyages of discovery' of the 15th to the 18th centuries were the preface to colonization, as these were meant to 'discover' the best places on earth in which to settle, and from which to extract resources, in service of the rapidly industrializing empire. By every means possible, including by persuasion, conquest, false promises and cheating, colonization resulted everywhere in the occupation, subjugation, and exploitation of – and, above all, epistemic violence towards – the indigenous populations (Fanon, 1965; Mbembe, 2001).

While the notion of imperialism is often conflated with that of colonization, it is important to make a distinction: while the former involves the expansion of influence through the use of military force and other power resources, the latter involves setting up colonies or settlements to benefit the colonizing country politically and economically. The reasons for the creation of empires and colonies are economic, military, re-

ligious, and exploratory. There has been an underlying belief that the whole world would benefit from the civilizing influence of Western countries (Maravanyika, 1985). Historically, the age of enlightenment was all about opening the world's eyes to the edifying influence of Christianity and modernism. This, perhaps, was the greatest error of judgment, based on the assumption that the rest of the world would, under Western values, be a better place. Thus, wherever colonialists went, they made little or no attempt to understand the values, economic organization, technological capital, knowledge, education or religions of the indigenous peoples. Instead, they were assumed to be backward and in need of salvation, needing to be rescued from the paths of self-destruction they were following (Maravanyika, 1985).

Reverend Wilder, who headed a mission station in Zimbabwe, once wrote that the purpose of the mission station was to demonstrate to the indigenous Blacks that there was something more worthwhile to do in life than to drink beer and make babies (Maravanyika, 1985). As we shall see later, the strategies of displacement and disengagement were utilized to erase indigenous people's values and identities, replacing these with the values of the colonizers. In the educational process, for example, local indigenous languages were not only despised and neglected, but also systematically removed from the curriculum and replaced with the colonizers' languages. Effectively, the indigenous populations were forced to use Western lenses to see and understand themselves (Mbembe, 2001). This resulted in local people seeing themselves as inadequate, underdeveloped, and dependent – as unfinished business. The only way to overcome these deficits was to embrace the colonizers' way of being, ridding themselves of anything that even hinted at their indigenous origins (Fanon, 1965).

However, colonialism was resisted, even though for a long time, the colonizers used their political, military, and legal might to suppress any opposition. The growth of socialism and communism, which offered a critique of capitalism (Chachage & Chachage, 2004), provided ideological support to the dissenting voices in the colonies. So too did the increasing military influence of socialist and communist Russia and China, through whose support dissenting voices were militarized. This was done to support armed struggle in the colonies, which resulted in the achievement of political independence in the late fifties and sixties. It was not until 1994 that South Africa gained democratic freedom – the last country in Africa – from oppressive and divisive rule by the minority groups who had settled in the country, broken ties with their own country of origin, and become a power unto themselves. The attainment of the democratic rule was indeed the first phase of the decolonization process.

2.1 Neo-colonialism and coloniality

The most important lesson to come out of this initial victory in the decolonization process is that political independence, sovereignty, self-rule, and democracy do not by themselves erase colonialism. They constitute a necessary step, but are by no means the final step in the decolonization process, if there is a final step at all. By and large, colonizing countries do not simply relinquish control. They become so intricately connected to their colonies, emotionally, economically, politically, religiously, and also militarily. In a sense, they become dependent on their former colonies, to the extent that they will do everything possible to maintain the status quo.

Neo-colonialism is the practice of using economics, globalization, cultural influence, and conditional aid, rather than direct military and political control, to maintain the colonial condition (Chachage & Chachage, 2004). The Commonwealth, the World Bank and IMF, the Internet and World Wide Web are a few examples of structures that have, advertently or inadvertently, maintained the imbalances of power across the world and the economic exploitation of poor nations for the benefit of richer nations (Hoyos & Angel-Urdinola, 2017). Although Kwame Nkrumah (1956) in Mazrui (2004) defined neo-colonialism as the last stage of imperialism, he noted that it was perhaps the most dangerous, as it often implies power without responsibility and results in the widening of the gap between the rich and poor nations, frequent social upheavals that lead to economic collapse, and sometimes military conflicts in the former colonies.

Coloniality is essentially the condition that results from the neo-colonial experience. It is the tendency of a former colony to remain within the colonial matrix of power and influence. Quijano (1998) emphasizes that coloniality describes the living legacy of colonialism in contemporary societies, the continued adherence to the colonizers' canons, and the entrenchment of power differentials in societies across the globe. Quijano has given us two main forms through which this coloniality of power is evidenced and maintained in the post-colonial condition.

Essentially, the coloniality of power is a complex matrix of hierarchies through which power is distributed and allocated. For example, power is effectively reproduced and allocated along the gender binary, where men, in many parts of the world, are accorded higher status and social leadership. It is therefore no coincidence that almost 95% of the world's presidents and prime ministers are male. Likewise, in South Africa, 20 of the 23 university Vice Chancellors are male. Based on beliefs about innate abilities and inequalities within the human species, hierarchies and privileges in higher education still tend to trace the contours of gender. Extending the work of Quijano, Maldo-

nado Torres (2011) describes how coloniality supersedes and entrenches colonialism. He states that:

> Coloniality … refers to long-standing patterns of power that emerged because of colonialism, but that define culture, labour, intersubjectivity relations and knowledge production well beyond the strict limits of colonial administration. Thus, coloniality survives colonization. It is maintained alive in books, in the criteria of academic performance, in cultural patterns, in common sense, in the self-image of people, in aspirations of self and so many other aspects of our modern experience. In a way, as modern subjects, we breathe coloniality all the time and every day.

2.2 Coloniality of knowledge

This comprises two complementary elements. The first is the continued denial of knowledge production to the conquered people. The systems that recognize excellence, such as university league tables, base their standards on the practices of the most prestigious Western universities, such as Harvard, MIT, Oxford, and Cambridge. Journals that publish knowledge created in the former colonies are disregarded and ranked so low that they become invisible in the academic hierarchy. The second element is the dominance of the Western knowledge canon, which is perpetuated through consolidating and entrenching the so-called dominant world views (Quijano, 1998), prescribing what we teach, how we teach, and how we assess. For example, even though African indigenous populations had strong and effective leadership and knowledge systems, little to no mention is made of these in many leadership and management courses taught at local universities. In knowledge production mechanisms, the apprenticeship model for training doctoral students dominates our practices, based on the Western belief in the individualization of expertise and its location in specific individuals who wield power in our universities. However, many African societies embrace a cooperative belief system, such as Ubuntu (Mugumbate & Chereni, 2020), which teaches that people exist because of others, or the famous Ujamaa philosophy found in many East and Central African countries, in which community and national development efforts are delivered by groups of people rather than individuals. Critical to these afro-centric philosophies are issues of communalism, respect, and the prioritization of human dignity. Possibilities of collaborative doctoral research could be explored as a potentially viable approach to new, transformative knowledge-making in higher education institutions.

2.3 Coloniality of being

The coloniality of being is a concept used to describe how dominant cultural systems reproduce, entrench, and subjugate other cultural systems, inducing people to follow the patterns of their cultural practices, which define and reproduce their sense of being (Maldonado-Torres, 2007). Through language, cultural artefacts, technology, music, entertainment, amongst other cultural dimensions, the essence of Western being holds sway over all other ways of being. When a rural student comes to join our universities, they must, first and foremost, adjust to the alienating Western culture on which the university culture is based. They have to shed their rural culture and wear new designs, speak in a new way, eat new types of foods, and be seen using the latest smart technologies. Meanwhile, the university itself does everything to align its values, strategies, and ambitions with those of the most successful Western universities to cement their position in the global hierarchy of academic excellence.
The ongoing COVID-19 pandemic has clearly shown a new coloniality in the way the world mitigates the impact of epidemiological disasters.

2.4 Decolonization and decoloniality

Earlier we noted that colonization began as soon as settlers occupied indigenous land. The first phase of decolonization therefore ended with the attainment of political independence, sovereignty, and democracy in previously colonized nations. However, as we have seen, such countries enter the more dangerous phase of neo-colonialism, orchestrated this time not by military force, but by use of post-modern institutions and ideologies that force post colonies to behave. We do not know, nor can we speculate, how long this process of coloniality will last. The process of actively engaging with coloniality is what is referred to as decoloniality. Ndlovu-Gatsheni (2020) states, for instance, that while coloniality is a project of death, decoloniality is a project of life. While coloniality refers to the enduring patterns of power and injustices established by colonization through various forms of epistemicide, decoloniality finds ways to bring back epistemological justice into Higher Education.

3 A brief history of teacher education in South Africa

The apartheid policies of racial segregation and white supremacy resulted in separate and differentially resourced education systems for Blacks and Whites. Teacher

education for Blacks in the apartheid era took place in Bantustan establishments and provincial establishments, in about 102 public teacher training colleges. These institutions were not exposed to the best practices in teacher training (Cross, 1986). For example, prior to 1994, trainees for the Black education sector were only required to start training with a Standard 8 school leaving qualification, which was barely a post-primary-level qualification. In 1995, the National Teacher Education audit found that almost 40% of teachers in South Africa were underqualified or unqualified, giving rise to a demand for in-service teacher education CPD to improve the quality of teachers.

Major changes, alongside other changes across different sectors, were introduced in 1994. The responsibility for teacher education was shifted to the 23 universities that were constituted partly through mergers and the upgrading of former Technikons (these were formerly technical and polytechnical institutions) to university status. This meant that the responsibility for teacher preparation was no longer in the hands of colleges, but in those of the universities. Currently, all teacher education programs are housed either within Faculties of Education or, in some cases, in Faculties of Humanities and Social Sciences within the universities. The deans of faculties and heads of schools of education provide the administrative leadership for teacher training in South Africa.

There are two major routes in universities for students to gain a teaching qualification. The first and more common of these is the four-year Bachelor of Education Degree (Department of Higher Education and Training, 2015). Students taking this route enter universities through the Matric school leaving certificate, a five-year secondary leaving certificate required by all universities for undergraduate studies. The second route is through the PGCE (Post Graduate Certificate in Education), a one-year full-time or two-year part-time program open to graduates with combinations of school teaching subjects in their undergraduate degree programs.

3.1 Structure of the school system in South Africa

Education in South Africa is governed by two departments: the Department of Basic Education (DBE) and the Department of Higher Education and Training (DHET). The DBE is responsible for primary and secondary schools, while the DHET has responsibility for all post-school education, including universities and Technical and Vocational Education and Training (TVET) colleges (van der Berg & Hofmeyr, 2018)

The DBE oversees public and independent (private) primary and secondary schools, early childhood development centers (ECD), and special needs schools. The DHET

deals with further education in the TVET sector, Community Colleges, Adult Basic Education and Training (ABET) centers, and universities (van Der Berg and Hofmeyr, 2018).

Beyond the national structures, education in South Africa is administered through nine provincial administrations representing the nine provincial governments in the country. These provincial governments basically implement National strategies and focus on local specific contexts. For example, a major aspect of provinces is that some are largely rural, while others are urban metropolitan provinces. Rurality and urbanity in the school systems demarcate contours of privilege and deprivation, which unfortunately are, to a large extent, racially linked. In that context, learner outcomes and opportunities in South Africa continue to be mitigated by the legacies of Apartheid (Moletsane, 2012).

3.2 Teacher training types in South Africa

Band	Classes / Grade	Training Phase
Pre GED	Grade 000	Early childhood education
	Grade 00	
GED Foundation	Grade 0 / R	Foundation Phase Training
	Grade 1	
	Grade 2	
	Grade 3	
GED Intermediate	Grade 4	Intermediate phase Training
	Grade 5	
	Grade 6	
GED Senior	Grade 7 (highest primary class)	Senior Phase training
	Grade 8	
	Grade 9	
FET	Grade 10	FET Phase
	Grade 11	
	Grade 12 (highest secondary class)	

Table 1 Teacher Training levels in South Africa: KEY: GED = General Education; FET = Further Education and Training

The phased structure of training is assumed to reflect traditional psychological and physical levels of learners' development. However, whether or not the program structuring in teacher education contributes to the reproduction of colonial edifices of power is a question worth serious interrogation (Chisholm, 2020).

3.3 Academic models of teacher education

There is no discernible pattern in the master's level training of South Africa's teacher education. B.Ed. graduates generally find employment in schools and, after a few years of service, if they passed their undergraduate degrees with good marks, can enroll in the B.Ed. Honors one-year full-time or two-year part-time program. The Honors program is usually discipline-focused and, in some universities, has a small research component. It is generally meant to deepen students' knowledge of fundamental disciplines and to train them in knowledge production (Department of Higher Education and Training, 2015).

There is a variety of master's level qualifications in schools of education and at different universities in South Africa. The most prominent one is the M.Ed., which offers specializations in different subject disciplines, together with a substantial research report or dissertation. The terms dissertation and thesis are not sufficiently differentiated in the South African context, as they are used interchangeably or with overlapping meanings across different institutions. It is also important to note that the M.Ed. is not a teaching-specific qualification. It is located within the broader field of education. Students can opt to work in diverse areas such as curriculum studies, ICT in education, educational leadership, language in education, mathematics, and science education, amongst others. There is a shortage of participation in some areas, such as Early Childhood Development, and this tends to limit the capacity and pipeline to doctoral-level studies in such areas.

3.4 Indicative program structure in South Africa's pre-service teacher education

The B.Ed. degree is based on a concurrent study of subject-specific content and pedagogical approaches. Students generally study two teaching subjects to a level that is equivalent to the 3rd year level of study in universities in South Africa (Davids & Waghid, 2020). In other words, while the B.A. English degree is usually a four-year degree, the B.Ed. student is expected to finish with a content-level equivalent to the third year of a four-year B.A. or B.Sc. degree. The other year is made up through study of subject pedagogies in the two teaching subjects and through school-based experience. This teaching experience, frequently referred to as Teaching Practice (TP), is spread across

the years of study. Typically, B.Ed. students spend an average of 21 weeks in schools across the four-year period of study, three in the first year and six each in the second, third and fourth year of study. On the other hand, PGCE students are expected to spend an average of 10 weeks in schools during their time in training. No study has been undertaken to compare the quality of teachers produced through these two very different pathways. This could be a subject for further research in this joint project.

3.5 Teacher certification and registration in South Africa

Once a trainee has completed their degree program in the B.Ed. or PGCE, they are classified as a fully / professionally qualified teacher. Upon qualifying, teachers cannot practice in schools before registering with the South African Council of Educators (SACE). In order to register, prospective fully qualified teachers have to submit the following documentation:

- A fully completed SACE application form
- Certified copies of the NSC / Matric certificates
- Certified copies of academic transcripts
- National ID certificates
- Proof that the school they wish to teach at is registered by the DBE
- Offer of employment letter by a school

It is important to note that teachers in South Africa do not have to undergo a period of induction as newly qualified teachers to become fully qualified. This is another area where interesting research could be conducted, specifically on the value of the induction into teaching before full licensure.

4 Emerging discourses of transformation in teacher education

Four discourses characterize the South African teacher education terrain. These are decolonization, inclusive education, teacher quality, and the role of teacher unions.

4.1 Decolonization

As discussed earlier, decolonization came to the fore in South Africa with the Rhodes Must Fall protests led by the University of Cape Town, as well as the University of

the Witwatersrand Fees Must Fall protests, in 2015 and 2016 respectively. These protests effectively became movements and the rallying call for the decolonization of higher education in South Africa. Students made three substantial demands:

The abolition of fees in order to allow poor but deserving students to access university education. It was felt that fees placed a limit on democratized participation by all deserving students. Although fees have not been abolished, the government came up with "learn now pay later" financial models operated through several bursary schemes. To qualify for such schemes, deserving students had to demonstrate that they came from specific minimum income threshold households. However, once these students are employed and their salary has reached a certain level, they are expected to repay their loans.

The maintenance of quality in higher education. Students were very clear that the democratization of higher education was not to downgrade the quality of educational provision. Beyond this, there was not much nuance in the understanding shared by the movements about the meaning of quality. However, while universities have grappled with this in different ways, the maintenance of a university's standing in the global rankings has been considered a key indicator of high quality. In that sense, it can be argued that South Africa has maintained its status as the jewel of African higher education, as it has the highest number of universities consistently ranked in the top 500-1000 of globally eminent institutions, according to several ranking tables such as the Times Higher Education, the QS World University Rankings, and the Shanghai World University Rankings. The Universities of Cape Town (UCT), Witwatersrand (Wits), Stellenbosch (US), Pretoria (UP), KwaZulu Natal (UKZN), and more recently the University of Johannesburg (UJ), constantly feature highly in the Times Higher Education (THE) lists, the QS Rankings, and the Shanghai Rankings. The Times Higher Education (THE) consistently ranks UCT, Wits and US as Africa's top three universities. Africa's top world-class universities are in Egypt, South Africa, and Nigeria. However, the high-ranking statistics mask the relative low performance of most institutions, especially those established post-94 and those traditionally meant for Black education in the apartheid era. This offers additional evidence that the impact of Apartheid continues to reign supreme within the HE sectors. But it also clearly shows how the standards of the West are still used to measure the quality of HE. In light of this, it can be argued that we cannot continue to measure a transformed HE sector with criteria used before transformation became imperative.

A decolonized operative environment in Higher Education. Decolonized higher education was also defined as higher education that operates within transformed environ-

ments, that is, environments with renamed buildings, removed symbols (e.g., statues with an apartheid or colonial origin), more Black academics, transformed Black university leadership, increased indigenization of the curriculum content, and so forth. Which of these ambitions have been achieved varies across different universities in South Africa. For example, about 18 of the 23 universities are Black VCs. Many key buildings and sports fields have been renamed. Universities have established renaming committees that routinely sit to consider the renaming of university buildings, teaching and learning venues, laboratories, roads, and other public facilities. While we could say that substantial change has taken place in the past 25 years following the abolishment of Apartheid, the most significant feature of the university, which is its curriculum, has largely been left unchanged (Maringe & Osman, 2016). There is insufficient evidence showing that the content of degree programs has substantially changed, despite the change of guard in terms of the university teaching force. Similarly, there is no evidence that the teaching approaches and assessment methodologies have diverged from how they were before 1994. As long as the curriculum remains intact, it can be argued that South African higher education has only been superficially transformed since the demise of Apartheid.

The other dimension of a decolonized Higher Education is its mechanisms of knowledge production. Many senior professors who are highly influential in the decision-making at South African universities are white. There is also no evidence to show that research, both as a process and as a mechanism for creating certain types of outputs, has been adequately transformed. In addition, at many South African universities, the patterns of partnerships for knowledge production have hardly changed. In one university we work at, almost 70% of knowledge partnerships are still with Western universities in Europe and the Americas, especially North America and Canada. While there has been a notable increase in local funding of research at universities, some of the largest sponsors of research (such as the US-based Carnegie Foundation, the Ford Foundation, the Bill and Melinda Gates Foundation and the Spencer Foundation, the German-based DAAD, the European Union, the British-based Leverhulme Trust, the Nuffield Foundation, and the Newton Fund, amongst others) continue to be dominant players in the knowledge production terrain at South African universities. In teacher education, EU funding is a major player in South Africa's knowledge production. The extent to which the agendas of these funding mechanisms are in harmony with local imperatives remains a matter of conjecture and may require analysis in future research.

4.2 The discourse of inclusive education in South Africa

Given the imperatives of establishing an equal, non-segregated and non-sexist society, inclusion has a high-profile presence in teacher education, and more broadly, higher education in South Africa. However, as Sayed, Soudien and Carrim (2003) have noted, the notion of inclusion is mired in intractable debates about its meaning, its priorities and, most importantly, about the efficacy of its associated strategies. Inclusion is thus a slippery concept. It comes with a lot of promise for righting the wrongs of the past, for delivering equal opportunities, especially to previously disadvantaged communities, and for ensuring equal treatment and access to resources among groups with different identities, such as learners with disabilities and learners from disadvantaged and marginalized backgrounds.

The main problem in inclusive practice seems to be the challenge of creating opportunities for marginalized groups without disadvantaging other groups. For example, teaching special groups of learners separately from mainstream groups can be seen as exclusionary. On the other hand, integrating the learners in mainstream teaching and learning formations introduces its own difficulties, including the management of differentiated learning support in a shared environment and the risk of short-changing other learners who need different forms of support.

In South African universities, students from poorer backgrounds, such as those from rural schools, experience multiple challenges. First, the middle-class culture that characterizes many universities is a threat to their process of integration into the university's citizenry. Many come to university without having used a computer or laptop and therefore need time to be socialized into the high-tech learning environment before they can productively engage with their studies. They can very easily be left behind, given the fast pace of curriculum instruction at many universities, although there are often writing centers whose main purpose is to upskill students from disadvantaged backgrounds to a higher level of academic engagement. Evidence suggests that these groups of learners are the most disadvantaged when it comes to the quality of their learning outcomes, non-completion of their degree, exam failure, and repeating or dropping out of learning programs (Badat, 2010). In South Africa, almost 40% of students who start year one do not complete their degree programs. Approximately 80% of these students are from disadvantaged backgrounds characterized by multiple deprivations. For that reason, we can argue that while universities have created more opportunities for disadvantaged learners by promoting greater physical access, the equality of epistemological access remains an issue of great concern. As such, South African universities cannot be said to be providing cognitive justice to all their stu-

dents, especially in terms of access to knowledge, and in terms of pedagogical approaches which recognize issues related to learners' socio-economic backgrounds.

4.3 Issues surrounding the quality of teaching

Elsewhere we have defined quality, not so much in terms of input and output dimensions, but in terms of delivering an educational experience that closes the gaps between historically advantaged and disadvantaged students at our universities (Maringe, Chiramba, Pournara, Ndlovu & Magabane, 2020). Issues of teaching quality in teacher education thus relate to two significant factors:

1. the distribution of good teachers at our universities: the historically white universities tend to have the highest concentration of senior professors, while the new universities have higher concentrations of junior staff. It can thus be argued that students in historically white-only universities experience richer curricular encounters, both in terms of resource availability and the quality of teaching, and the research to which they are exposed. Even though these universities are enrolling larger numbers of Black students from low-income households, there is no escaping the fact that these universities have significant cognitive capital, which the newer and the historically Black universities do not have.
2. inequalities in resource distribution: as noted above, historically white-only universities have larger endowments from traditional sources, which newer universities tend not to have.

The top three richest universities in South Africa, besides UNISA, are all historically white-only institutions, while the three poorest are either new or historically Black universities. The richest universities are also the globally most highly-ranked universities in the country. This pattern replicates global trends, where Harvard ($41 Billion); Yale ($30 Billion); Stanford ($27 Billion) and Princeton ($26 Billion) perpetually maintain top positions in global university rankings year after year (Moore, 2017). There is thus a close relationship between the quality of teaching and resource availability.

4.4 The role of teacher unions in South Africa

Partly as a mechanism to police the process of transformation from a highly uneven educational terrain deliberately created by Apartheid to one that underpins equality and social justice, teacher unions play a substantial role across all educational sectors,

including in teacher education. As organized labor, teacher unions have diverse functions, such as bargaining for teachers' salaries and conditions of service, and ensuring quality of education and the maintenance of standards in schools (Mafisa, 2017). Because of past injustices, many teacher unions in South Africa tend to be overly protective of their members, even in situations that can be said to compromise the quality of teaching and learning. For example, the unions often come to the defense of teachers, even when their record of absenteeism from school is unacceptable. In South Africa, teacher absenteeism from school is a shockingly prevalent phenomenon (Mothibeli, 2017). Mbiza (2017) has noted that every day in South Africa, 10% of teachers do not pitch for work. According to the 2017 School Realities Report, 10% comprises about 433,320 teachers. Effectively, this means that 135,000 children go untaught daily. The impact this has on learners can be far-reaching: failure, learner absenteeism, learner drop out, poor learner outcomes, the erosion of learning gains, psycho-social issues, and the associated social and economic impacts on society.

4.5 The 4 IR and teacher education

The Fourth Industrial Revolution (4 IR) is a contemporary discourse in teacher education that invites us to contemplate both the affordance and the constraints of a rapidly technologizing world. The single most important idea within this discourse requires that we reflect on the effect of innovations such as automation, robotics, the increasing influence of the internet of things (IoT), 3D technologies, artificial intelligence, and blockchain technologies on the face of workplaces, including classrooms (Schwab, 2016). Two significant impacts of the 4 IR in teacher education include the so-called 21st century skills and the higher likelihood that teaching and learning will be more technology-driven, rather than taking place via face-to-face modalities (Mayer, 2020). 21st century skills tend to include the following:

- Technological / digital adaptiveness
- Ability to evaluate vast amounts of information
- Criticality and critical thinking
- Networking and working in and across teams
- Data capture / harvesting and analytical skills
- Technological / digital literacy and competences
- Complex problem-solving
- Emotional intelligence
- Negotiation
- Cognitive flexibility

Indeed, teachers of the future will need to learn some or all these skills. The challenges we face at our differentiated and differently endowed universities include the extent to which all students will have access to similar levels of technologically and digitally supportive teaching and learning environments; considerations surrounding developmental priorities in specific contextual settings, i.e., the question whether, in the context of the developing world, our priorities should be poverty alleviation and the dismantling of inequalities, or following the developmental trajectories of the more developed world; and whether the rationale of the 4 IR remains steeped in colonial intentions of exerting dominance over the poorer nations in order to continue extracting raw materials and cheap labor from them (Rodney, 1972). In the final analysis, technology should not dictate our developmental priorities. It is the developmental priorities that should dictate the technologies we embrace.

4.6 Disruptions and teacher education in South Africa

The COVID-19 pandemic has led to school closures in over 190 countries across the world. Consequently, more than 90% of school-going learners have experienced disruptions in schooling (UNESCO, 2020).
Literature searches on the causes of school disruption / closures yielded three different clusters: disease, natural disasters, and long summer breaks, particularly in the Northern Hemisphere. We focused mainly on the first two, although the impact of summer learning loss in the US has been used to model potential learning loss due to COVID-19 (Soland et al., 2020). To concentrate on research that was likely to pay attention to low-income contexts similar in poverty levels to those in South Africa, we limited ourselves to studies in the developing world, such as Indonesia (Rush, 2018), Nepal (Ezaki, 2018; Mu et al., 2016), Pakistan (Andrabi, Daniels & Das, 2020), Philippines (Cummiskey et al., 2020), Sierra Leone (Powers & Azzi-Huck, 2016; Rasul, Smurra & Bandiera, 2020), and Rwanda (Thomas, 2010). We did, however, consider reports on the 1916 polio pandemic in the US (Meyers & Thomasson, 2020) and on Hurricane Katrina (Hill, 2020), since they were used in predicting the impact of COVID-19 in various ways.
It is worth mentioning that there is little research published in peer-reviewed academic journals related to the focus of the question pursued here. Most of the research appears in reports, blogs and other web-based publications, and is reported by international aid agencies (e.g., UNESCO, USAID and World Bank) and non-profits (e.g., UKFIED and RTI). Not surprisingly, this research is mostly quantitative and based on relatively large samples. It is also not surprising that the authors and publi-

shers are generally based in the developed world and / or associated with institutions in the global North, which receive funding from the above-mentioned (and other) aid agencies. The research is unanimous: disasters, whether stemming from natural disasters or disease, impact the poor most severely, and this has knock-on effects that extend to schooling (World Bank, 2020).

When it comes to the specific effects on schooling, the research findings are not always unanimous, being influenced by social and political contexts, government responses, and the nature of the disruption. However, there is agreement that extended school disruptions lead to learning loss and negative psycho-social effects for *all* learners, and that this effect, unsurprisingly, is greatest for learners from low-income families (World Bank, 2020). This may be related to the general lack of access that low-income families have to resources needed to recover from all aspects of a crisis. Furthermore, education is a lower priority in a household that is fighting for survival. There may be less home-based support than in households of a higher socio-economic status due to the parents' lower level of education, as well as a lack of time and physical space for learning at home. While schools are closed, they may have little, if any, access to "replacement pedagogies" (our term), such as radio or TV broadcasts and other forms of online learning (Kerr & Baxter, 2020).

A key distinction needs to be made between the impact of disruptions on *school attendance* and the impact on learning. Concerning school attendance, some studies report that attendance typically returns to pre-crisis levels over time (e.g., Ezaki, 2018; Powers & Azzi-Huck, 2016). However, others have explored various causes of dropout, finding that girls generally experience greater negative effects from disruptions. These include missing or dropping out of school because of pregnancy or mothering responsibilities, as well as a lack of family investment in their education. By contrast, families tend to invest more in the education of male children. However, in contexts such as farming, it is expected that males can make a greater contribution to the household income. Therefore, they may miss school and / or drop out following extended disruptions (Mu et al., 2016).

In general, the disruptions have a greater impact on secondary schools than on primary schools (Rush, 2018). There are various reasons for this difference. One reason is that learners typically live closer to their primary school, which makes it easier to attend school, especially after natural disasters, when access to schools further away may not be possible. Lower attendance by older learners may result from being required to work in order to support the household income (Mu et al., 2016).

When it comes to learning, the research is unanimous that the learning loss is greater for younger children and that these effects accumulate over time, with the consequen-

ce that they may be unable to learn new content at later stages because of the earlier gaps (World Bank, 2020). On the other hand, younger learners will have more time in school, during which they can benefit from intervention programs.

With respect to subjects, it should be noted that the research typically focuses on performance in literacy / language / reading and numeracy / math. The impact on performance in numeracy / math is greater, which is not surprising, given the hierarchical nature of mathematics and the importance of having a solid foundation on which to build new knowledge. Various models have been proposed to predict the impact of COVID-19 on learning loss. The data are drawn mainly from the developed world, where extensive sets of (historical) educational data exist based on national assessments (e.g. Soland et al., 2020) and / or international assessments (e.g. PISA). However, there are also instances of models using data from the less developed world, such as the Philippines (Cummiskey et al., 2020).

5 Conclusion

Almost 26 years after the abolishment of Apartheid in South Africa, the structural edifices of inequality continue to manifest themselves in all sectors of life, including in higher education and in teacher education. In this chapter we have argued that much of the transformation in post-apartheid South Africa, despite the good intentions at the core of our democratic policies, have been largely cosmetic or superficial. The color of the academy, and its physical composition and structures, have changed and continue to do so. This is firmly supported by laws and policies based on the country's democratic and non-discriminatory constitution. However, inside this outer shell, the system continues to show evidence of limited transformation, exhibiting a stubborn resistance to change, which we explained in this chapter as a form of coloniality in higher education.

We have argued that there is a need to move towards unpacking the curriculum from the entry foundation phase to the upper end of the spectrum. We are not oblivious to the magnitude of the task. However, the chronological injuries sustained from the epistemological violence experienced over the years are hidden in the knowledge we acquire and the way we acquire it. We warn against addressing this issue superficially and symbolically only, and call for the development of a framework with core values that prioritize the African identity. We also need to discover explicit and credible ways of knowing, of disseminating new knowledge, and of engaging with the wider world. Furthermore, we need to realize that there will be elements from the past we wish to

preserve, and that, as painful as it may be, we must keep guard against the persistent coloniality that characterizes our teacher education sectors.

The chapter began with a conceptual discussion of the issues surrounding the continued coloniality of teacher education in South Africa. We examined four central notions: colonialism, decolonization, coloniality and decoloniality. We then provided a brief historical discussion to show the origin of the current status quo in South Africa's teacher education. This was followed by an examination of the post-94 changes that took place in teacher education. The chapter ended with a brief discussion of six discourses: decolonization, inclusive education, teacher quality, the role of teacher unions, the impact of the 4 IR, and, finally, the impact of disruptions in teacher education in South Africa. In the discussion, several critical research questions were raised, which could give new impetus to exploring the evolving status of teacher education in South Africa. The phase we enter now will be characterized by difficult steps towards dismantling the stranglehold of coloniality in higher education and teacher education.

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