

COVID-19 AND LEARNERS WITH DISABILITIES: TOWARDS DIVERGENT PRAXIS IN TEACHER PREPARATION FOR EQUITY AND EPISTEMIC JUSTICE

O. T. Adigun

Educational Foundation

National University of Lesotho

Roma, Lesotho

<https://orcid.org/0000-0001-6079-1690>

D. R. Nzima

Educational Psychology and Special Education

University of Zululand

KwaDlangezwa, South Africa

<https://orcid.org/0000-0003-2641-6357>

M. C. Maphalala

Centre for Excellence in Learning and Teaching

Durban University of Technology

Durban, South Africa

<https://orcid.org/0000-0002-1078-1985>

N. D. Ndwandwe

Educational Foundation

University of South Africa

Pretoria, South Africa

<https://orcid.org/0000-0001-7149-2397>

ABSTRACT

Emergence of COVID-19 further exposed educational inequalities and epistemic injustices experienced by learners with disabilities (LwDs). COVID-19 presents additional challenges for teachers and LwDs whose life and active learning engagements depends largely on social interaction. While the lockdown persisted, teachers of LwDs became anxious about potential relapse of previously gained learning outcomes and aggravated disabling condition. Unfortunately, there seem to be less teachers' capacities to continually foster learning among their LwDs during the lockdown because there exist low teachers' morale and pedagogical gaps for digital teaching. Based on current realities, it is evident that there is need for a paradigm shift in teacher preparation and training towards equity and epistemic justice for LwDs. Hence, this intellectual piece advanced the need to modify the existing teacher education curriculum to extensively build on teachers'

morale while it consciously infuses technological pedagogies in preparation programmes of teachers of LwDs in Africa.

Keywords: teacher preparation, COVID-19, learners with disabilities, curriculum modification, equity and epistemic justice

INTRODUCTION

Inequalities and injustice in the education of children with disabilities has been a subject of discussion, with unending debates. Individuals with disabilities, whom Adigun (2018), Peters (2008), Rajić, Mihić, and Vorkapić (2017), and Zimba (2015) describe as those with physical, mental, intellectual or sensory impairments; conditions that hinder their full and effective participation in all spheres of educational and social life, continue to strive to receive their education on an equal basis with others. Over the years, persons with disabilities have been faced with discrimination, exclusion, prejudice and injustice, particularly in their education (Adigun 2018; Peters 2008). In other words, their rights to education are enveloped in epistemological inequalities and perhaps injustice. Interestingly, all forms of epistemological discrimination and exclusions, unfair treatment and inequalities in issues of knowledge, understanding and participation in communicative practices and knowledge sharing continue to be experienced by learners with disabilities (LwDs), and this is an epistemic injustice which must be eradicated (Kidd, Medina, and Pohlhaus 2017; Walker 2019).

According to Kidd et al. (2017), inequalities and the epistemic injustice experienced by LwDs are occasioned by wrongful pedagogical treatments and unjust structures, misrepresentations, inaudibility, unfair differentials in authority and/or epistemic agency, and/or marginalisation as a result of dysfunctional dynamics. Fricker (2007) states that there are two types of epistemic injustice (hermeneutical and testimonial), and she avers that the central cause of this epistemic injustice is social identity prejudice. For more than two decades, persons with disabilities (in their clusters) have been recognised as a social but minority group based on their identities, characteristics, communicative processes and the cohesiveness of their disability group (Fine and Asch 1988; Hahn and Belt 2004). Regrettably, based on their identity, characteristics and communicative processes, persons with disabilities continually experience discrimination, exclusion and prejudice, which results in a lack of adequate accessibility to educational potentials and formidable social interactions. Unfortunately, LwDs have somewhat experienced and indeed are still experiencing heightened epistemological exclusion and prejudice, particularly in terms of their educational and psychotherapeutic interventions since the advent of the coronavirus disease (Covid-19).

Since December 2019, Covid-19 has caused disruptions in the social order which have

resulted in the adoption of physical and social distancing in a bid to slow the spread of this disease. The need to stem the spread of Covid-19 further necessitated the closure of schools, thereby disrupting routine teaching and learning activities. Covid-19 has, to a great extent, negatively affected the most vulnerable members and minority groups of society (FAO 2020) who continually strive to attain equity, and epistemic and social justice.

Notably sub-Saharan African nations, through Sustainable Development Goals (SDGs) and the instrument of the United Nations Convention of the Rights of Persons with Disabilities (UNCRPD) (United Nations 2008), have increased their efforts and commitments towards the promotion of equity and inclusion, as well as the promotion of social justice via a comprehensive educational drive for LwDs. Regrettably, African teachers' potential as drivers of established digital teaching policies remains a daunting challenge. In other words, teachers' capacity to engage in online teaching and learning processes with LwDs remains a subject of yet to be answered questions. Hence the potential to deliver pedagogical content via online modes to LwDs in crisis situations, such as the situation presented by Covid-19, remains a difficult and challenging task.

Recently, Adigun (2018) and Aiyaleso (2016) reported that Nigerian special education teachers are ill-equipped for digital teaching. Succinctly, Aiyaleso (2016) stated that teacher training institutions across Africa need to modify and enrich their curricula and modules to reflect current digital pedagogies. Therefore, this journal submission reflects on pre-Covid-19 teacher preparation activities and reveals the challenges of teaching and learning processes during the lockdown occasioned by Covid-19 *vis-à-vis* pedagogical equity and epistemic justice. It also advances the need for modification of the existing teacher education curricula; infusion and application of technology in teacher preparation programmes as well as development of the morale for pre-service teachers of LwDs towards attainment of equity and epistemic justice.

TEACHER PREPARATION FOR LWDS PRE-COVID-19: ISSUES INVOLVED

Being a historically diverse and multifaceted concept, which is influenced by various socio-political factors, special education or the education of learners with disabilities remains the focus of the "political class" and stakeholders in the educational sector. In fact, the need to educate children with disabilities for fully inclusive societies and epistemic justice has been brought to the fore for discussion using many national and international legislative instruments, (Zagona, Kurth, and MacFarland 2017). Essentially, teachers have been identified as the core drivers of all educational objectives.

The International Labour Organisation (ILO) and the United Nations Educational,

Scientific and Cultural Organisation (UNESCO) have acknowledged the fact that teaching is a profession wherein specialised skills and knowledge is needed, acquired and maintained via in-depth, rigorous and persistent training for the sole purpose of nurturing a just and egalitarian society (UNESCO/ILO 2008). Therefore, for the nations of Africa to further attain the various educational objectives, the need to train and recruit qualified teachers for LwDs in order to assist them in achieving self-reliance and economic independence; equity and social justice is paramount.

Over the last two decades, teacher education, preparation and training institutions in Africa have braced to produce qualified teachers for LwDs (Nel et al. 2016). The Federal College of Education (Special) in Oyo, Nigeria is a teacher training college in sub-Saharan Africa specifically meant for the training of special education teachers. In addition, a few faculties of education in some African universities have departments of special and or inclusive education which aim at training teachers for LwDs (Richter 2016). A large pool of established studies (for instance those by Chang'ach 2016; Kelani and Khourey-Bowers 2012; Watson 2013) have appraised teacher preparation for regular learners (learners without disabilities), while there is a dearth of such studies on the development, training and preparation of teachers for LwDs in Africa (Zagona et al. 2017). Based on the shortage of literature on teacher training and preparation for teaching of LwDs, this article advances the construct of teacher preparation from the general perspective and makes inferences for special needs education teachers.

Some earlier studies by the European Union (2007), Vanderlinde et al. (2016) on teacher training and preparation aver that in ensuring equity and epistemic justice, multiple challenges confront teacher educators across the globe in their endeavour to prepare teachers for learners with and without disabilities. Among the challenges identified in the teacher preparation programmes prior to the emergence of Covid-19 are the quality and quantity of the entrants into teacher education programmes, the critical competence of the would-be teachers, problems ascribed to the retaining of prospective teachers on teacher training (Rots, Kelchtermans, and Aelterman 2012), as well as policy issues (European Union 2007; Vanderlinde et al. 2016).

Prior to the emergence of Covid-19, previous studies (Gorski 2013; Vanderlinde et al. 2016; Walker et al. 2020) on teacher education, development and preparation expressed concerns about the policies, processes and products of special education teacher training institutions. Such concerns include curriculum models, as well as the psychological, social and technological implications of teacher training as symbolic measures of instructional effectiveness towards the entrenchment of equity and epistemic justice.

Instructional effectiveness towards the achievement of equity and epistemic justice is the core of teaching and learning activities in which curriculum is instrumental. Curriculum, as

described by Depover and Jonnaert (2014), is a planned interactive system of instruction through which educational objectives are achieved. It provides answers to questions of what can be taught and learnt, as well as why and how such concepts should be taught and learnt (Su 2012). The curriculum is designed to provide a framework for the educational objectives, and it is arguably the most important component of teacher education, training and preparation programmes. The components and quality of the curriculum in teacher preparation and training towards the attainment of equity and epistemic justice for LwDs have been a contentious issue in the literature (Taylor 2007; Valeo 2009; Walker 2019; Walker et al. 2020).

For instance, Taylor (2007) notes that streamlining of the teacher education curriculum has negatively influenced adequate preparedness of teachers for employment in the school system. Valeo (2009) and Walker (2019) further contend that the “watered-down” teacher education curriculum with less attributes for rigorous academic, creative and critical thinking skills has caused the chaos observed in learning outcomes and epistemic justice among learners at the primary and secondary levels of education.

In recent times, government policies and political will in Africa have prevailed on the transformation of the teacher education and training curriculum (Spaull 2015; Taylor 2007). Undoubtedly, many of these policies and enactments have become an integral part of evidence-based teacher education and preparation programmes, leading to the proactiveness witnessed in the educational sector (Spaull 2015). However, Fourie and Fourie (2015), Hoadley and Jansen (2009), and Taylor (2007) maintain that some of the policies are weak and are not sufficient enough to equip and prepare teachers to teach LwDs remotely in a time of crises/pandemic, as is currently being experienced.

In addition, teaching in sub-Saharan Africa has not been seen as a desirable profession, basically because of its low social status, poor career prospects, harsh working environments and poor remuneration associated with the profession (Moon and Villet 2017). The aforementioned is evident in various studies on teacher preparation in many African nations (Aiyaleso 2016; Mulkeen 2010; Prince 2018), which all established that a large percentage of the entrants into the teaching profession join the programme with low interest and struggle to adjust psychologically to the reality of being called a teacher. In other words, many of the pre-service teachers, especially those for LwDs, are clouded by impaired self-image, self-concept, self-esteem and/or self-efficacy, which may have a great impact on their teaching competence, professional behaviour and ultimately their attitude towards teaching LwDs for the purpose of achieving epistemic justice (Lancaster and Bain 2010).

In the “*EQUIP2 Study*” which was conducted in six African countries (Zambia, Malawi, Liberia, Kenya, Ghana and Uganda), Smiley (2012) asserts that inadequate capacity of the

teacher preparation institutions is one of the major factors impeding the production of teachers. Other studies blamed deficits in the quality of the teacher preparation programmes on deficiencies in the teacher training curricula. These deficiencies are the source of teachers' inadequate knowledge about the communication, behavioural and learning characteristics of LwDs; knowledge that is required for the implementation of equity and epistemic justice (Finke et al. 2009; Wanjiru 2017). Thus Ajuwon et al. (2012) and Osisanya, Oyewumi, and Adigun (2015) aver that special education teachers who lack the required understanding of the functionality of the individualised educational programmes (IEPs) in terms of grade level content adaptation, and assessment modification patterns for LwDs may have a negative attitude and lowered aptitude for teaching LwDs. According to Kumar and Raja (2010), teachers' negative attitudes towards teaching LwDs may jeopardise the objectives of providing education equity and epistemic justice through impactful teaching-learning experiences for LwDs.

In a bid to foster positive attitudes among pre-service teachers and ensure epistemic justice for LwDs in a time of crisis, Batane and Ngwako (2017), Jita (2018) suggest the infusion of technology into the education of LwDs. However, the extent to which trainee teachers understand the implications and applications of technology in teaching LwDs is a concern that was reported in studies (Netherton and Deal 2006; Spaul 2015) prior to the emergence of Covid-19. Netherton and Deal (2006) recognise the role of teacher training institutions in the expanded curriculum *vis-à-vis* how, when, for whom and the need to infuse technology into teaching and learning processes, but Jita (2018) notes that teacher training institutions in Africa are yet to provide sufficient information and pedagogical approaches to pre-service teachers on the integration of assistive technologies into the education of LwDs.

TEACHERS, TEACHING AND LWDS DURING THE LOCKDOWN: HOW FAIR?

The emergence of Covid-19 has necessitated a lockdown in 213 countries and territories as well as 2 international conveyances (Worldometer 2020), as an urgent measure to arrest the pandemic and curb its rapid community transmission. These measures entail a series of procedures, which include an increased call for hygienic living, social distancing, compulsory use of face masks, and the closure of schools. While hygienic living through daily living skills training is not a new phenomenon to LwDs (Rajić et al. 2017), sudden changes to the social interactions, empathy, cheerfulness and playfulness which characterise teaching and learning in special schools have become strange to learners with special educational needs. In fact, many of these children with disabilities have become stunned by the sudden change in attitude and distancing, and they thus feel more ostracised or excluded. A few of the categories of LwDs,

especially those with mild to moderate sensory disabilities, such as those learners who are deaf and/or hard of hearing, visually impaired or physically impaired may have limited understanding of what has necessitated the global attitudinal change. However, other learners with cognitive dysfunction, such as those with intellectual disabilities, Downs Syndrome, Autistic Spectrum Disorder and other neurodevelopmental disorders may be much more affected by the disruption in their social order.

Amidst the lockdown, necessary routine behavioural interventions, therapies and specialised programmes for LwDs have been altered. Also, the teaching and learning processes have remained a challenge for LwDs and their parents during the lockdown. In fact, teachers of LwDs have not been left out of the traumatic experience as they are faced with the potential decline in gained academic achievements, and of the social and behavioural skills of their learners prior to schools' closure. Calls for virtual teaching and learning have thus been made in order to minimise the potential loss in social, behavioural and academic achievements for these learners across all grade levels (Li and Lalani 2020; Pedro, Mthmunye, and Bust 2020). However, virtual teaching and learning's relevance, workability and impact on LwDs seem to be a major concern for both parents and teachers while the lockdown persists.

As the lockdown persists and face-to-face schooling remains on hold, our (authors') informal observations and discussions with Nigerian and South African parents and teachers have revealed several challenges associated with virtual teaching and learning for LwDs. Among the challenges observed are distraction, reduced socio-personal interactions, delayed reinforcement, reduced learners' commitment, teachers' inability to develop and create enjoyable teaching environments, as well as the inability to stimulate online learning activities that are appropriate for each learner based on their special educational needs.

This period of global crisis, coupled with the difficulties of Internet connectivity and financial challenges (Limperos et al. 2015), has heightened tension for parents regarding how to fully engage their children with disabilities in learning tasks. Besides this, frustration on how to keep up with the extreme behaviour exhibited by these children has increased among parents because the teachers of these LwDs either lack the ability or cannot efficiently provide adequate teaching and/or actively engage LwDs meaningfully using all available digital media for teaching. In other words, teachers of LwDs are faced with difficulties associated with (i) role swing; (ii) communication; (iii) teachers' interests; (iv) teaching style; and (v) content preparation and delivery.

Role swing

One of the major hurdles preventing effective online teaching for LwDs during the lockdown

is the teachers' challenges associated with the role swing from teaching in the traditional face-to-face classroom environment to teaching in the virtual classroom environment. Since the early part of 2020, teachers of LwDs have been experiencing difficulties in assuming and changing to the realities of the social, technical, managerial and pedagogical responsibilities needed for virtual teaching. The shift from being a "performer" in the classroom to a "guide" in a virtual classroom can be very challenging for a teacher (Kebritchi, Lipschuetz, and Santiago 2017).

In addition, Choi and Park (2006) aver that the shift in teachers' roles towards digital teaching can be more challenging and demanding for teachers who are not well grounded in the pedagogical principles needed for effective facilitation and management of online learning engagement. Those teachers with inadequate competence for online teaching may consider digital/virtual teaching as an excessive workload and their frustration towards technological adoption for online teaching may be heightened. While teachers of LwDs move from being agents of knowledge diffusion in the classroom to being guides and facilitators of online learning processes, technical, managerial and instructional (design, delivery and follow-up) challenges, as well as difficulties in getting learners committed to online learning persist.

Communication

Establishing an effective two-way communication process between children with disabilities and their teachers, parents or other peers without disabilities can be challenging for children with disabilities. Studies (Osisanya et al. 2015; Prino et al. 2014; Rajić et al. 2017) have shown that, even in the classroom setting, teachers strive to communicate with LwDs based on their behavioural uniqueness and communication demands. The communication uniqueness of each learner necessitates the application of individualised educational programmes (IEPs) to teacher-student interactions; the verbal and non-verbal communication that characterises the traditional (face-to-face) teaching approaches.

Currently, teachers' reward response reinforcement techniques and various strategies such as applied behavioural analysis (ABA) that facilitate continuity of the learners' attention and participation in learning activities, teacher-students' joint decision-making and the support and care used by teachers of LwDs in a face-to-face classroom environment are difficult to transmit via online teaching and learning processes. While the digital medium remains an available means of academic instruction, it may be very difficult for teachers of LwDs to take both verbal and non-verbal cues from their learners, based on the fact that there may be slim opportunities to see the learners' faces and understand the prevailing environmental situations within and around such learners. Hence, the provision of feedback by the teachers for students' behaviour exhibited may be delayed or inappropriate.

Teachers' interest

Switching from traditional teaching (face-to-face) to an online teaching and learning environment may demoralise teachers of LwDs. As expressed by Osika, Johnson, and Buteau (2009), perception and comfort level with technology may influence teachers' interest in online education. Furthermore, with challenges of Internet connectivity, the functionality of digital devices, interrupted power supply, and perhaps financial constraints, many teachers of LwDs may lose interest in engaging their learners through online platforms, especially during the lockdown occasioned by the Covid-19 pandemic.

Besides the foregoing factors, many teachers of LwDs may feel less comfortable because of their fear of the unknown and anxiety linked to how they can stimulate learners' interest during online teaching. Lack of teachers' interest towards movement to online teaching for their LwDs may be attributed to their level of technological dexterity and technological know-how.

Teaching style

While teachers of LwDs have had all of the opportunities and avenues to teach through the dynamic presentation of concepts, and to describe, explore and expatiate on a construct during face-to-face instructional delivery prior to the lockdown, such a style of teaching is rarely accommodated in online instructional delivery (Jita 2018; Junco 2014). The student-teacher interactions enjoyed in the classroom prior to the emergence of Covid-19 have been taken over by online learning platforms, which have forced the teachers of LwDs to guide their learners digitally. Hence, teachers are being pressured to reskill themselves pedagogically, and to adopt teaching techniques suitable for the online teaching/learning environment in order to achieve the online teaching and learning objectives.

Content preparation and delivery

These represent some of the greatest challenges faced by teachers of LwDs. Content preparation and delivery to learners requires careful selection and arrangement of content based on the learners' individual educational needs. Teachers have to be conscious of the cognitive, affective and psychomotor skills of each of their learners while preparing instructional content. Unlike the face-to-face teaching where special needs education teachers can manipulate the learning situation, teachers have little or no control over what is happening at the other end with the learner during online teaching. Hence, selecting stimulating and appropriate instructional content for LwDs may be a herculean teaching task during the lockdown.

The aforementioned challenges faced by the teachers of LwDs with regard to online

teaching engagement with their learners during the lockdown occasioned by the Covid-19 pandemic, especially in Africa, have shown how LwDs are being short-changed. They are being short-changed in terms of the quantity of the academic instruction received from their instructors and in terms of the quality of the academic instruction and the loss of needed behavioural interventions. Although there is a dearth of empirical findings on the extent to which LwDs are lagging in academic activities and achievement while the lockdown persists, it is evident that these LwDs are being deprived of effective teaching and learning engagement (Aluko 2020; Pedro, Mthmunye, and Bust 2020).

Conversely, studies by Andrew et al. (2020); Aurangabadkar and Patil-Dake (2020); Brom et al. (2020) have reported gains in learning outcomes among learners without disabilities during the lockdown. Essentially Shenoy, Mahendra, and Vijay (2020) have attributed the academic gains among learners without disabilities to instructors' and learners' technological adoption and adaption to the teaching and learning processes required at this time. However, the instructors in these studies are not as anxious about the behavioural and learning commitment of their learners as the teachers of LwDs are.

The findings reported by Shenoy et al. (2020) on the instructors' ability and confidence to adopt and conveniently use various technological platforms such as Google Hangouts, Google classrooms, LMS, Zoom, YouTube, Skype, and Microsoft PowerPoint for instructional delivery may be justified by the fact that the teachers of learners without disabilities have been adequately groomed for such challenges during their training (Batane and Ngwako 2017; Netherton and Deal 2006).

To the best of the our (authors') knowledge, the integration of technology for teaching into the curriculum of pre-service teachers of LwDs in the various African institutions established for teacher trainees is yet to receive adequate attention. The effect of this lack of adequate and in-depth infusion of technology into pre-service special needs education teachers' training curricula has resulted in the current difficulties experienced by the in-service teachers of LwDs. These difficulties relate to the instructional design of the course content, delivery of such instructional content, knowledge assessment, as well as provision of adequate feedback to learners in the online teaching-learning environment. Thus, in order to prevent a recurrence of this scenario, in which LwDs lag behind in learning outcomes and behavioural intervention, this article advocates the need for divergent praxis in teacher education and preparation.

MODELLING TEACHER EDUCATION FOR EQUITY AND EPISTEMIC JUSTICE FOR LWDS POST-COVID-19

Existing literature, observation and informal discussions with the parents and teachers of LwDs

during the lockdown occasioned by Covid-19 have revealed that LwDs are not being engaged sufficiently in academic activities. In other words, they are missing out on the active learning opportunities provided via online media, based on the fact that their teachers/instructors lack the skills needed to engage them actively. Therefore, in order to avoid a recurrence of this deficient teaching during crisis situations, as is being observed during the current lockdown, this article advocates for the re-assessment of the existing teacher education curricula. This can be done through the following: (i) curriculum modification; (ii) infusion and application of technology in the teacher education curricula; and (iii) construction of the morale of teachers for effective online teaching for LwDs in the post-Covid-19 period. Figure 1 describes the processes needed, which teacher training institutions in Africa should adopt.

Curriculum modification

This involves the conscious effort of adapting, interpreting and re-interpreting the existing special/inclusive education teacher training curricula in Africa into units of learning activities and learning objectives that are capable of aiding equity and epistemic justice. This effort should be geared towards the preparation of qualified teachers of LwDs who are well groomed in the appreciation and application of technology in educational activities. It is thus expedient for teacher training institutions, especially in Africa, to make changes to their educational components (knowledge and pedagogical content, students' learning outcomes, materials and programmes) via accommodation, adaptation, parallel instruction and overlapping curriculum, as advised by King-Sears (2001). Such modification should promote equity and epistemic and social justice for learners with disabilities.

Accommodation

This term refers to a change in the methods of instructional delivery to learners with diverse needs, which prospective teachers of learners with disabilities are exposed to while at teacher training institutions. The accommodation conceptualised in this article for the curriculum modification does not alter the content of the curriculum but instead exposes trainee teachers to additional approaches to educational content delivery to their LwDs. Furthermore, with knowledge of accommodation, trainee teachers will have adequate information on how existing classroom models of instructional delivery can be integrated into the online teaching and learning process. This process includes a conscious attempt by teacher training institutions to expose trainee teachers to technologically-compliant teaching techniques which incorporate digital pictorial and abstract representations, concept mapping/graphic organisers, real-time and screen frame instructional analysis and the type of online support needed by LwDs. In addition,

teacher training institutions need to incorporate the applications and *modus operandi* of assistive/adaptive technologies used by LwDs into the training of prospective teachers. Such trainee teachers should be made to understand the functional abilities of the various assistive/adaptive technologies which will allow LwDs to assess and complete online learning tasks which may otherwise be difficult to complete.

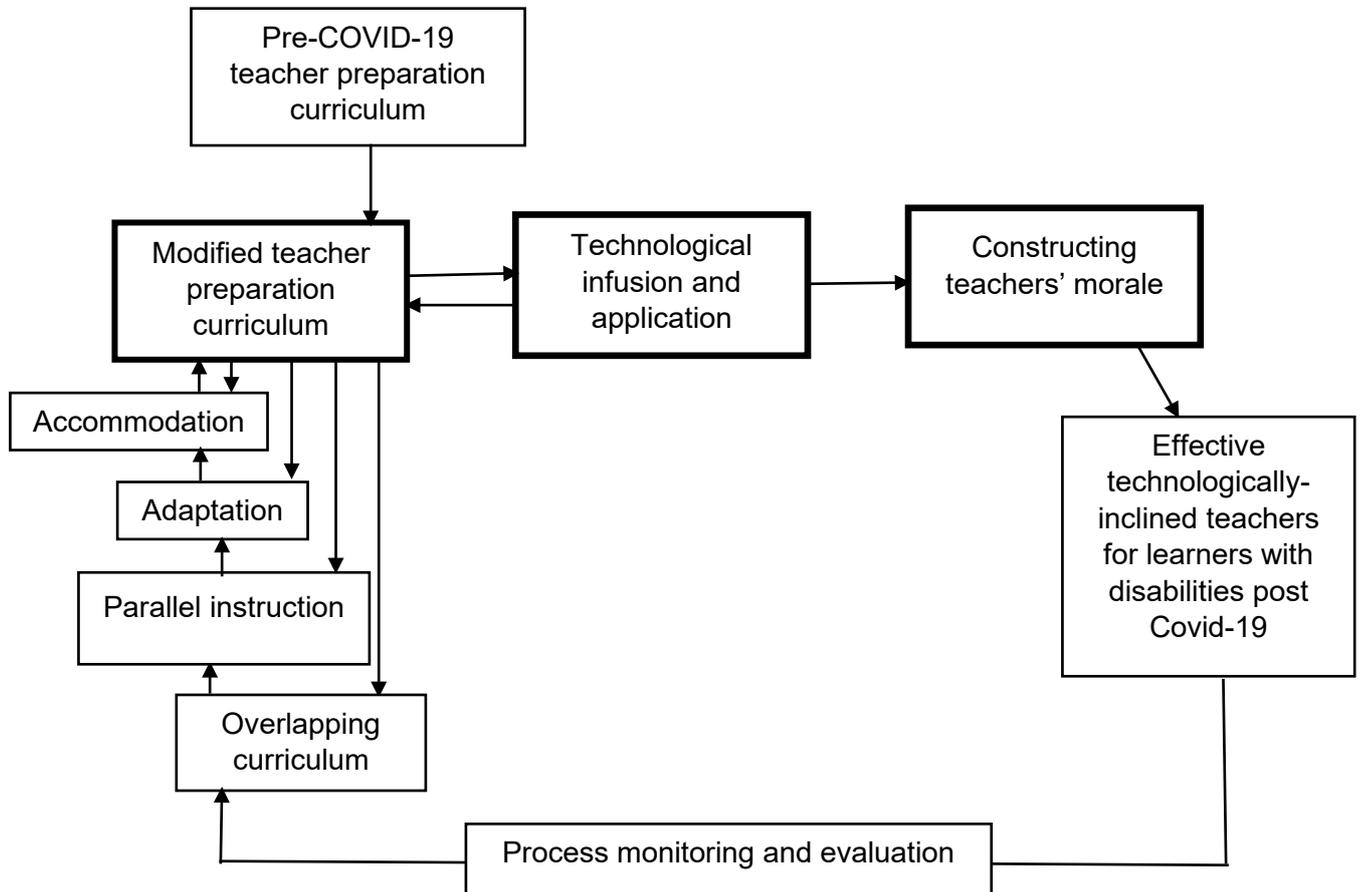


Figure 1: Process model for modification of the existing special needs/inclusive education teacher training curriculum towards enhanced digital teaching for LwDs in the post-Covid-19 period (Source: Maphalala and Adigun 2021, 5231)

Adaptation

This implies the modification of pedagogies and the anticipated performance goals for trainee teachers while delivering instructional content to LwDs via online media. Adapting the teacher education curriculum to suit online teaching does not change the content of the curriculum; rather, it provides a minor change to the conceptual difficulties observed. Adaptation is a goal-driven process which requires a great deal of teachers' time and efforts (Hall et al. 2004). Hence, training prospective teachers for LwDs will require a great deal of effort from teacher training institutes in terms of adjusting their existing teacher training curricula in a way that will provide trainee teachers with the needed skills. While on the teacher training programme; prospective

special needs/inclusive education teachers should be made to undergo a miniature demonstration of concept/content adaptation via online media/interaction. Also, prospective teachers should explore online adaptation training of differentiated activities for LwDs using various online instructional techniques, designs and evaluation approaches.

Parallel instruction

This concept in curriculum modification (see Figure 1) refers to modification to both the model of instructional delivery and the intended instructional objectives regarding LwDs. Parallel instruction, unlike adaptation discussed above, involves substantial modification of the conceptual difficulties in the education of LwDs. Hence, teachers are expected to design appropriate instructions that suit the online learning needs of each learner with disabilities. The principle of parallel instruction depends on the specific educational needs of learners in special /inclusive educational contexts.

Overlapping curricula

This process creates equity in the learning outcomes of learners with diverse needs. While it is not a direct modification of the general curricula, it creates consciousness of the individuality and expectations of LwDs. Therefore, the responsibility of preparing professional teachers who can understand and are able to deploy appropriate teaching proficiencies to modify existing curricula for the benefit of LwDs rests greatly on African teacher training institutions. Such institutions, as a matter of urgency, need to establish and train prospective teachers of LwDs in the required skills for digital teaching in such a way that the teachers will be able to manage knowledge creation and conceptual challenges through creatively designed computer-mediated and peer-mediated approaches (Adigun 2020).

Technological infusion and application

In order to fully address the contemporary educational difficulties, inequalities and epistemic injustices experienced by teachers and LwDs during the lockdown occasioned by Covid-19, there is the need to improve teachers' competencies for digital instructional delivery in the post-Covid-19 period. The need to expatiate on and emphasise the importance of technology in teacher preparation is now needed more than ever before. Hence, teacher training institutions in Africa need to invest in "technology in education" and "technology for education" of LwDs. Preparing teachers for LwDs in the post-Covid-19 era should have as the top priority the creative infusion and application of technology in teacher training curricula. In fact, such institutions should incorporate coding, application and emoji development, as well as continual

use of the Learning Management System into the curricula of teacher education programmes. Furthermore, such infusion and application should incorporate modelling, as well as the creation and sourcing of specific videos as instructional materials appropriate for teaching LwDs. Through such efforts, graduate teachers for LwDs will develop the computer-efficacy required for digital teaching, particularly in times of crisis, such as that presented by Covid-19.

Teachers' morale

Morale is said to be a function of mental and emotional attitude (Govindarajan 2012). Morale among teachers refers to the degree of teachers' satisfaction, perception and achievement of instructional objectives between and among LwDs. Individualised curriculum content delivery and development of the skills of LwDs are at the core of teachers of learners with diverse needs. Unfortunately, Covid-19 has influenced special teachers' dedication and passion for their learners and changed the overall process of teaching. Hence, while teaching in this crisis situation has shifted from face-to-face to online teaching, there is the need for teacher training institutions to ensure that teacher education curricula are emotion- and vocation-sensitive. Teaching as a profession is an "emotionally intense form of work" but teaching learners with a disability via online media can add to the psychological and pedagogical stress of teachers. Therefore, teacher education curricula should build variables that attract, retain and motivate the teachers of LwDs for digital teaching. Pre-service teachers should be tutored on how they can manage the burnout and stress associated with virtual teaching of LwDs.

CONCLUSION

There is no doubt that Covid-19 has brought changes to human interactions in all spheres, and these changes are not without great implications for the education of LwDs. This article has examined the challenges associated with the educational engagement of LwDs while the lockdown occasioned by Covid-19 persists. Based on the associated challenges identified which have further exposed the inequalities and epistemic injustice in the learning engagement of learners with and without disabilities, the need for a change of status quo in teacher preparation has been emphasised. The need to remodel teachers' training programmes with the infusion of technological skills, curriculum modification and morale boosting is encouraged.

Based on the aforementioned, this article advances a framework for the education, training and preparation of teachers of LwDs in Africa in the post Covid-19 era, through curriculum modification in a manner that incorporates technology in the teaching and learning processes for LwDs. Also, concerted efforts should be made to build the morale of teachers to better equip them for teaching in times of crisis, such as the one currently created by Covid-19. As the

process model (Figure 1) is consciously implemented to prepare teachers for the post-Covid-19 period, conscious monitoring and periodic evaluation are recommended in order to establish equity and epistemic justice for learners with disabilities.

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