

## Covid-19 and Teacher Preparation for Learners with Disabilities: The Need for Divergent Praxis

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### ABSTRACT

The emergence of COVID-19 necessitated the need for lockdown and social distancing. It presented additional challenges for teachers and learners with disabilities (LwDs), whose life and active learning engagements depend largely on social interaction with teachers, caregivers, therapists and peers. COVID-19 presents anxieties associated with teaching and learning processes, potential relapse of previously gained learning outcomes and aggravated disabling condition. However, there seems to be less teachers' capacities to continually foster learning among their LwDs during the lockdown because there are low teachers' morale and pedagogical gaps for digital teaching. Based on the current realities, it is evident that there is need for a shift in teacher preparation to be able to teach LwDs in crisis situations. Hence, this reviewed intellectual piece advances the need to modify the existing teacher education curriculum to extensively build on teachers' morale while incorporating the use of technology in teacher preparation programmes in Africa.

### Keywords

Teacher preparation; COVID-19; learners with disabilities; curriculum modification; teacher' morale, infusion and application of technology

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### Introduction

Since December 2019, the coronavirus disease, which broke out from Wuhan, Hubei Province in China, has continued to affect many people across the globe. The disease, code-named COVID-19 by the World Health Organization (WHO), remains an invisible enemy which has its presence in almost all spaces of the world. Being a viral infection, its manifestation is seen as fever with high body temperature, cough, bone pain, cold, difficulties in breathing and ultimately pneumonia [1,2]. The rate of COVID-19 infection, transmission and causality is steadily rising across the globe. Thus, COVID-19 remains a pandemic which requires urgent attention to curtail [2]. Globally, COVID-19, an infection transmitted via zoonotic droplets has significantly disrupted regular human activities [3].

Largely, COVID-19 is no more only a health crisis but also an hydra-headed phenomenon that has influence on all sectors of human development and social interactions. Although the negative impacts on economy, education, tourism and hospitality presented by the pandemic vary amongst various countries, its effects on social identity, cohesion and interaction seem the same.

Social interaction and cohesion that form the basis for healthy human relationship needed a halt while social distancing was enthroned as a strategy to prevent the spread of the virus.

Disruptions in social order occasioned by the pandemic and social distancing in a bid to slow the spread of COVID-19 necessitated the closure of workplaces and schools, thereby disrupting the economic power of parents as well as routine teaching and learning activities in schools. COVID-19 has, to a great extent, negatively affected the most vulnerable members of society [4]. By implication, children of the low-income African parents, particularly those children with disabilities, are greatly at a loss due to the pandemic. Children with disabilities represent a group of minority individuals who experience permanent disabling conditions that limit their activities and restrict their participation in social and learning activities [5,6]. They are, thus, referred to as those children whose individual functioning is prevented by sensory, intellectual and physical impairment which are significant enough to restrict their learning activities and participation in social activities.

Disability in childhood is a complex phenomenon that reflects not only health challenges but also

interaction between body organs and interpersonal interactions. Maintenance and sustenance of peer relationship, marginalisation, discrimination as well as high levels of socio-emotional problems are unique challenges faced by children with disabilities [7,8].

As noted by World Health Organization and the World Bank [9], sub-Saharan Africa remains a host to the largest population of children living with either a moderate or severe disability. However the continent of Africa and nations therein, through the Millennium Development Goals (MDGs), Sustainable Development Goals (SDGs) and the instrument of the United Nations Convention of the Rights of Persons with Disabilities (UNCRPD) [10], have increased their efforts and commitments geared towards inclusion and promotion of the well-being of children with disabilities via a comprehensive educational drive. While attainment of various educational drives and objectives, particularly for learners with disabilities (LwDs), requires well trained teachers, studies Adigun [6] and Aiyeleso [11] have shown that such teachers are ill-equipped by teacher training institutions in Africa to deliver pedagogical contents, especially to LwDs, in crisis situations, such as the situation presented by COVID-19. Therefore, this reviewed article reflects on pre-Covid-19 teacher preparation activities and reveals the challenges of teaching and learning processes during the lockdown occasioned by Covid-19. It also advances the need for modification of the existing teacher education curriculum, infusion and application of technology in teacher preparation programmes, and development of the morale for pre-service teachers for LwDs.

### **Teacher Preparation for LwDs in pre-COVID-19: Issues involved**

Being a historically diverse and multifaceted concept which is influenced by various socio-political factors, special education or education of learner with disabilities was and still remains a focus of the 'political class' and stakeholders in the educational sector. In fact, through the MDGs, SDGs and other national as well as international legislative instruments, the need to educate children with disabilities for full inclusive

societies has been brought to the fore for discussion [12]. Essentially, teachers are identified as core drivers of various educational objectives. The International Labour Organisation (ILO) and United Nations Educational, Scientific and Cultural Organisation (UNESCO) acknowledged the fact that teaching is a profession wherein specialised skills and knowledge is needed, acquired and maintained via an in-depth, rigorous and persistent training for the sole purpose of nurturing a just and egalitarian society [13]. Therefore, for nations of Africa to further attain various educational objectives, the need to train and recruit qualified teachers for learners with disabilities (LwDs) in order to assist them in achieving self-reliance and economic independence is paramount.

In the last two decades, teacher education, preparation and training institutions in Africa have braced up to producing qualified teachers for learner with disabilities [14]. Although, while one teacher training college [Federal College of Education (Special) Oyo, Nigeria] specifically meant to train teachers for LwDs currently exists in sub-Saharan Africa, a few faculties of education of some African universities have departments of special and or inclusive education which aim at training teachers for LwDs [15]. Moreover, a large pool of established studies have appraised teacher preparation for regular learners (learners without disabilities) [16-18], while there is a dearth of such studies on development, training and preparation of teachers for LwDs in Africa [12]. Based on the shortage of the literature on teacher training and preparations for LwDs, this paper advanced the construct of teacher preparation from the general perspectives and made inferences for special needs education teachers.

Some other earlier studies [19,20] on teacher training and preparation, aver that multiple challenges confront teacher educators across the globe in their endeavour to prepare teachers for teaching learners with and those without disabilities. Among the identified challenges of teacher preparation programmes prior to the emergence of COVID-19 quality and quantity of entrants into teacher education programmes, critical competence of would-be teachers,

problems ascribed to retaining of prospective teachers on teacher training [21], and policy issues [19,20]. Prior to the emergence of COVID-19, previous studies on teacher education, development and preparation raised concerns about policies, process and products of special education teacher training institutions vis-à-vis curriculum models, as well as psychological, social and technological implications of teacher training as symbolic measures of instructional effectiveness [20,22].

Instructional effectiveness is a core of teaching and learning activities in which curriculum is instrumental. Curriculum, as described by Depover and Jonnaert [23], 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 [24]. Curriculum is designed to provide a framework for educational objectives, and it is arguably the most important component of teacher education, training and preparation programmes. Components and quality of curriculum towards teacher preparation for LwDs have been a contentious issue in the literature. For instance, Taylor [25] notes that streamlining of the teacher education curriculum has negatively influenced adequate preparedness of teachers for employment in the school system. They 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 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 [25, 26]. 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 [26]. However, Taylor [25] and Hoadlley and Jansen [27] maintain that some of the policies are weak and not sufficient enough to equip and prepare teachers who are of international standards. This has steered teacher training

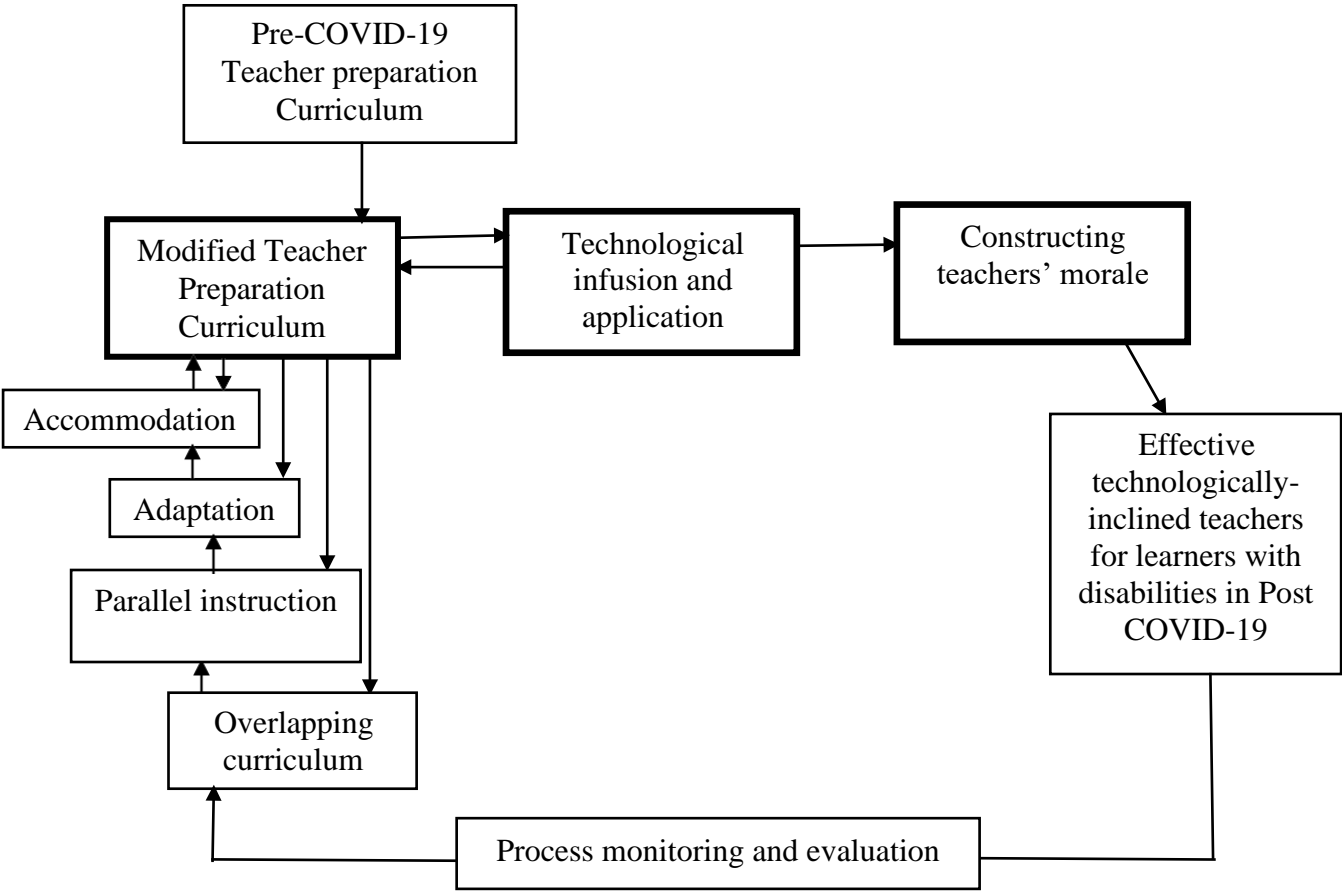
programmes into turmoil resulting in ill-prepared teachers who lack conceptual, philosophical and pedagogical knowledge as well as theoretical principles to deliver pedagogical contents in times of crisis, as it is currently experienced [28].

In addition, teaching in sub-Saharan Africa has not been seen as a desirable profession basically because of its low social status, poor career prospect, harsh working environment and poor remuneration associated with the profession [29]. The aforementioned is evident in various studies on teacher preparation in many African nations [11, 30, 31], which all established that a larger percentage of entrants into the teaching profession are on the programme with lower interest and are struggling to adjust psychologically to the reality of being called a teacher. In other words, many of the pre-service teachers of learners with or without disabilities are clouded with impaired self-image, self-concept, self-esteem and or self-efficacy, which could have greatly affect their teaching competence, professional behaviour and, ultimately, attitude towards teaching LwDs [32]. In the last few years, the attitude of teachers towards teaching LwDs in the segregated, mainstream or inclusive classrooms has raised much concern and thus been a subject of international debates [12, 33].

In a study titled 'EQUIP2 Study' in six African countries (Zambia, Malawi, Liberia, Kenya, Ghana and Uganda), Smiley [34] asserts that inadequate capacity of teacher preparation institutions is one of the major factors impeding the production of teachers. However, other studies blamed deficits in quality teacher preparation programmes on deficiencies in teacher training curricula, which are a source of teachers' inadequate knowledge about communication, behavioural and learning characteristics of LwDs [35]. Osisanya et al. [33] and Ajuwon et al. [36] aver that special education teachers who lack the required understanding of the functionality of the individualized educational programmes (IEPs), grade level contents adaptation, assessment modification patterns for LwDs may have negative attitude and lowered aptitude for teaching LwDs. The same applies to those teachers with shallow knowledge of special needs or inclusive education with lowered scored on

self-evaluations for teaching LwDs. If unfavourable attitude towards teaching LwDs exist among pre-service teachers, the objectives of providing a brilliant future through impactful learning experiences for LwDs may have been jeopardised [37]. In a bid to foster positive attitude among African pre-service teachers towards teaching LwDs, Batane and Ngwako [38] and Jita [39] propose infusion of technology into the education of LwDs to steer higher level of enthusiasm and motivate the current crop of pre-service teachers to take up the responsibility of teaching LwDs. These are the people who Junco (2014) regard as digital natives. Generally, the advent of technology has influenced every sphere of human endeavour. Its application in the teacher and learning process has been consciously infused into general teacher

education curricula [38]. However, the extent to which trainee teachers understand the implications and applications of technology in teaching LwDs is a major concern in studies prior to the emergence of COVID-19. Netherton and Deal [40] recognise the role of teacher training institutions on the expanded curriculum vis-à-vis how, when, for whom and the need to infuse technology into teaching and learning process. Jita [39] opines that teacher training institutions, particularly those in sub-Saharan Africa, are yet to provide sufficient information and pedagogical approaches to pre-service teachers on integration of assistive technologies into the education of LwDs.



**Figure 1:** Process model for curriculum modification of the existing special needs/inclusive education teacher training curriculum towards enhanced digital teaching for LwDs in the post- COVID-19 period (Source: Authors)



## Teachers, Teaching and LwDs during the Lockdown: How fair?

The emergence of COVID-19 necessitated the lockdown in 213 countries and territories as well as 2 international conveyances [41] required an urgent measure to arrest the pandemic and curb its rapid community transmission. These measures entail a series of procedures, which include increased call for hygienic living, social distancing, compulsory use of nose mask, and closure of schools. While hygienic living through daily living skills training is not a new phenomenon to LwDs, the sudden change to social interactions, empathy, cheerfulness and playfulness, which characterize teaching and learning in special schools, became strange to learners with special educational needs. As a fact, many of these children with disabilities became more stunned with the sudden change in attitude and distancing, and, thus, felt more ostracised or excluded.

Although a few 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 and physically impaired may have limited understanding of what necessitated the global attitudinal change. However, other learners with cognitive dysfunction, such as those with intellectual disabilities, Down syndrome, Autistic Spectrum Disorder and other neurodevelopmental disorders, may be much more affected by the disruption in social order.

Amidst the lockdown, necessary routine behavioural interventions, therapies and specialised programmes for LwDs were altered. Also, teaching and learning processes remain a mirage for LwDs and their parents during the lockdown. In fact, teachers of LwDs are not left out of the traumatic experience with regard to potential decline in gained academic achievements, social and behavioural skills of their learners prior to school closure. Although calls for virtual teaching and learning were made in order to minimize the potential loss in social, behavioural and academic achievements for learners across all grade levels [42, 43]. Its relevance, workability and impact on LwDs seem to be a major concern for both parents and

teachers while the lockdown persist. As the lockdown persist and face-to-face schooling remains on hold, the current authors' informal observations and discussion with Nigerian and South African parents and teachers revealed several associated challenges of virtual teaching and learning for LwDs. Among the observed challenges are distraction, less personal interaction, delayed reinforcement, less learners' commitment and teachers' inability to develop and create enjoyable and stimulating online learning activities that are appropriate for each learner based on their special educational needs.

During this period of global crises, coupled with difficulties of Internet connectivity and financial challenges [44], tension has been heightened for parents on how to fully engage children with disabilities, especially those with severe to profound cognitive impairment on learning task. Besides, frustration on how to keep up with the extreme behaviour exhibited by these children has increased among parents. Teachers of LwDs lack or have less efficiency to 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' interest, (iv) teaching style, and (v) content preparation and delivery.

**Role swing:** One major hurdle to effective online teaching for LwDs during the lockdown is teachers' challenges of role swing from teaching in the traditional face-to-face classroom environment to virtual classroom environment. Since the early part of year 2020, teachers of LwDs have been experiencing difficulties in assuming and changing to the realities of 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 more challenging for a teacher [45].

In addition, Choi and Park [46] aver that shift in teachers' role towards digital teaching could 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 excess workload and their frustration towards technological adoption for online teaching may be heightened. While teachers of LwDs move from being an agent of knowledge diffusion in the classroom to being a guide and facilitator of online learning processes, technical, managerial, instructional (design, delivery and follow-up) challenges as well as difficulties at 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 could be challenging for children with disabilities. Studies have shown that, even in the classroom setting, teachers strive to communicate with LwDs based on their behavioural uniqueness and communication demands [5, 33, 47]. The communication uniqueness of each learner necessitates the application of Individualized Educational Programmes (IEPs) to teacher-student interaction, the verbal and non-verbal communication that characterise the traditional (face-to-face) teaching approaches.

Closure of special schools, occasioned by the COVID-19 pandemic, through lockdown, has changed the dynamics of communication between teachers and LwDs. Currently, teachers' reward response, reinforcement techniques and various strategies, such as applied behavioural analysis (ABA), that facilitate continuity of learners' attention and participation in learning activities, teacher-student joint decision-making, support and care used by teachers of LwDs in a face-to-face classroom environment, are difficult to transmit via virtual medium during online teaching and learning processes. While the digital medium remains an available means of academic instructions, 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 is a slim avenue to see learners' faces and understand prevailing environmental situations within and around such learners. Hence, provision of feedback for exhibited behaviour may be delayed or inappropriate.

**Teachers' interest:** Switching from traditional teaching (face-to-face) to online teaching and learning environment may demoralise teachers of LwDs. As expressed by Osika et al. (2009), perception and comfort level with technology may influence teachers' interest in online education. Furthermore, with challenges of Internet connectivity, functionality of digital devices, interrupted power source and, perhaps, financial implications, 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 feel less comfortable because of the fear of the unknown and anxiety linked to how teachers would arouse and stimulate the interest of their learners during online teaching. Lack of teachers' interest towards movement to online teaching for their LwDs may be attributed to their technological dexterity and technological know-how.

**Teaching style:** While teachers of LwDs, prior to the lockdown, had all the opportunities and avenues to demonstrate through dynamic presentation of concepts, describe, explore and expatiate on a construct during face-to-face instructional delivery, such style of teaching is rarely accommodated in online instructional delivery [39, 48]. The student-teacher interactions enjoyed in the classroom prior to the emergence of COVID-19 have been taken over by the online learning platforms, which have forced teachers of LwDs to digitally guide their learners. Hence, the teachers are pressured to pedagogically reskill themselves, and adopt teaching techniques suitable for online teaching/learning environment in order to achieve online teaching and learning objectives.

**Content preparation and delivery:** These represent one of the greatest challenge faced by teachers of LwDs. Content preparation and delivery to learners require careful selection and arrangements based on learners' individual needs. Teachers are as well careful of the cognitive, affective and psychomotor skills of each learner while preparing instructional contents. Unlike the face-to-face teaching where special needs education teachers can manipulate the learning

situation, teachers have no control over what is happening at the other end of the learner. Hence, selecting stimulating and appropriate instructional contents for LwDs may be a herculean teaching task during the lockdown.

The aforementioned challenges faced by teachers of LwDs with regard to online teaching engagements with their learners during the lockdown occasioned by the COVID-19 pandemic, especially in Africa, showed how short-changed LwDs are. They are short-changed in terms of quantity of academic instructions received from their instructors and in terms of the quality of academic instruction as well as 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 LwDs are deprived of effective teaching and learning engagements [43, 50].

However, a number of studies have reported gains in learning outcomes among learners without disabilities even during the lockdown [50-52]. Essentially Shenoy, Mahendra and Vijay [53] attribute the academic gains among learners without disabilities to instructors' and learners' technological adoption and adaption for teaching and learning processes. However, instructors are not anxious about behavioural and learning commitment of their learners as it is for teachers of LwDs.

The findings reported by Shenoy et al. [53] on 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 have justified the fact the teachers of learners without disabilities have been adequately groomed for such challenges during their training [38, 40]. However, to the best of the authors' knowledge, integration of technology for teaching in the curriculum of pre-service teachers for LwDs in various African institutions established for teacher trainee is yet to receive adequate attention. The effect of lack of adequate and in-depth infusion of technology into pre-service special needs education teacher training curriculums in Africa

has resulted in the difficulties experienced by in-service teachers of LwDs in instructional design of contents, delivery of such instructional contents, knowledge assessment as well as provision of adequate feedback to learners in online teaching-learning environment. Thus, in order to prevent recurrence of this scenario, in which LwDs lag behind in learning outcomes and behavioural intervention, this paper advocates the need for divergent praxis in teacher education and preparation.

### **Towards Teacher Education and Preparation for LwDs in Post- COVID-19**

The existing literature, observation and informal discussion with parents and teachers of LwDs during the lockdown occasioned by COVID-19 revealed that LwDs were not sufficiently engaged for academic activities. In other words, they have somewhat missed out from the active learning opportunities provided via online media based on the fact that their teachers/instructors lack the skills needed to actively engage LwDs. Therefore, in order to avoid recurrence of deficient teaching during crisis situations, as currently observed during this lockdown, this paper advocates the need to re-assess the existing teacher education curriculum. This can be done through the following: (i) curriculum modification, (ii) infusion and application of technology in the teacher education curriculum, and (iii) construction of the morale of teachers for effective online teaching for LwDs in the post-COVID-19 period. **Figure 1** describes the needed processes which teacher training institutions in Africa should adopt.

**Curriculum modification:** This is a conscious effort of adapting, interpreting and re-interpreting the existing special/inclusive education teacher training curriculum in Africa into units of learning activities and learning objectives geared towards the preparation of qualified teachers of LwDs who are well groomed with appreciation and application of technology in the education of learners with disabilities. It is expedient for teacher training institutions, especially in Africa, to make changes to their educational components (knowledge and pedagogical contents, students'

learning outcome, materials and programmes) via accommodation, adaptation, parallel instruction and overlapping curriculum, as advised by King-Sears [54].

**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. Accommodation in curriculum modification, as conceptualized in this paper, does not alter the content of the curriculum but exposes trainee teachers to approaches of content delivery to their LwDs. Furthermore, with knowledge of accommodation, trainee teachers would have adequate information on how existing classroom models of instruction 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 technology-compliant teaching techniques which incorporate digital pictorial and abstract representations, concept mapping/graphic organizers, real-time and screen frame instructional analysis and the type of online support needed by LwDs. In addition, teacher training institutions should incorporate the applications and modus operandi of assistive/adaptive technologies used by LwDs into the training of prospective teachers of such learners. Such trainee teachers should be made to understand the functional abilities of various assistive/adaptive technologies which would allow LwDs to assess and complete online learning tasks which may be difficult to complete otherwise.

**Adaptation:** This implies modification of pedagogies and anticipated goals of performance of trainee teachers while delivering instructional contents to LwDs via online media. Adapting of the teacher education curriculum to suite online teaching does not change the contents of the curriculum; rather, it provides a minor change to observed conceptual difficulties. Adaptation is a goal-driven process which requires a great deal of teachers' time and efforts [55]. Hence, training prospective teachers for LwDs would require a great deal of effort from teacher training institutes, by adjusting their existing teacher training curriculums in a way that they would provide trainee teachers with the needed skill in this

regard. 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 as discussed above, involves substantial modification of 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 specific educational needs of learners in special /inclusive educational contexts.

**Overlapping curricula:** This process creates equity in learning outcomes of learners with diverse needs. While it is not a direct modification of the general curriculum, it creates consciousness of individuality and expectations for LwDs. Therefore, the responsibility of preparing professional teachers who would understand and be able to deploy appropriate teaching proficiencies to modify existing curriculums for the benefit of LwDs greatly rests 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 would be able to manage knowledge creation and conceptual challenges through creatively designed computer-mediated and peer-mediated approaches [56].

**Technological infusion and application:** In order to fully address the contemporary educational difficulties 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 emphasizes the importance of technology in teacher preparation is now greatly needed more



than ever before. Hence, teacher training institutions in Africa, at this current age, have 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 top priority creative infusion and application of technology in teacher preparation curriculums. In fact, such institutions should incorporate coding, App and Emoji development as well as continual use of Learning Management System into the curriculum of teacher education. Furthermore, such infusion and application should incorporate modelling, as well as creation and sourcing of specific videos as instructional materials appropriate for teaching LwDs. Through such effort, graduate teachers for LwDs would developed enough computer-efficacy that can be used 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 a degree of teachers' satisfaction, perception and achievement of instructional objectives between and among LwDs. Although individualized curriculum contents delivery and development of skills of LwDs are the core of teachers for learners with diverse needs, the current crisis occasioned by 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, there is the need for teacher training institutions to ensure that teacher education curriculums are emotion- and vocation-sensitive, and build variables that attract, retain, motivate teachers of LwDs for digital teaching. Teaching as a profession is an 'emotionally intense form of work' but teaching learners with disability via online media can add to the psychological and pedagogical stress of teachers. Therefore, 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 interaction at home and the workplace with great implications for the education of LwDs. During the lockdown occasioned by COVID-19, learners with disabilities seem to be less engaged in academic activities. There were worries among stakeholders about the potential that gains in all domains (cognitive, affective and psychomotor) may be diminished by the time face-to-face academic interactions in school resumes. Even while teachers of learners with disabilities wish to consolidate on the achieved cognitive, affective and psychomotor gains by their learners, they are prevented by their lack of ability to do so via online media based on the aforementioned challenges (role swing, communication difficulties, teachers' interest, teaching style as well as content preparation and delivery). Based on the stated challenges, this chapter advocates the framework for special needs teacher education and preparation in Africa in the post COVID-19 era through curriculum modification in a manner that incorporates technology in teaching and learning processes for LwDs. Also, concerted efforts should be made in building the morale of teachers for teaching in times of crisis as currently presented by COVID-19. As the process model (Figure 1) is consciously implemented for teacher preparation in the post-COVID-19, conscious monitoring and periodic evaluation are recommended.

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