

## **Historical Overview of Pandemic in Africa and the Implication of Its Interception on Education**

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## **Abstract**

Education, an essential need of every society, has been undergoing constant transformation. Over the years, its modes of knowledge-sharing have undergone various evolutions and adaptations. The recent outbreak of COVID-19 arguably marked the latest stage in this evolutionary process, raising awareness of the digital era in African education. Considering the impact of the different disruptions to education and they have has transformed pedagogies and other socialisation processes, this paper explores the different stages of educational evolution and its impact on teaching and learning. It also employed the Cultural Historical Activity Theory (thereafter, CHAT) as the theoretical framework to appraise the evolution of education in Africa. In addition, the paper also adopted a desktop research method to examine the different phases of education in Africa, from the indigenous system(s) of education to the online learning system. The conclusion reached recommends that government and policymakers should be better prepared and trained in the event of any subsequent or emerging disruption(s) to education.

**Keywords:** *COVID-19, ICT, History of Education, Pandemic, Pedagogy, Educational Disruption, Educational Transformation*

## ***Introduction***

Africa as a continent has long witnessed the gruesome effects and impacts of pandemics and various contagious infectious diseases and illnesses such as yellow fever, malaria, cholera, smallpox, tuberculosis, chickenpox, HIV/AIDS, Ebola, and more recently, COVID-19, that spread across the different regions and countries of the world. These pandemics posed significant challenges to educational, healthcare, economic, social, political, and many other systems of society. This is because pandemics have the potential to disrupt any society's systems (Kohnert, 2021). Consequently, different studies have shown that globally, every society has undergone different forms of transformation across its different sectors, which have affected every area of human lives many times (Thompson & Thompson, 2023). Hence, there have always been constant changes and adaptations in humans and their societies. As a result of the several transformations in human society, this historical overview aims to offer insights into the experiences of Africa with pandemics and their implications, specifically in the context of education.

Seepe (2017) argues that from one phase to another, the pandemic experienced in Africa has resulted in the restructuring, reconfiguration, redesign, reformation, re-integration, and re-introduction of structures, systems, standards, norms, and trends that have influenced human society in one way or another. On the other hand, the report by Lauder Global Business Insight (2022) shows that Africa's vulnerability to pandemics was caused by several factors, like poor health care, diverse climate zones, rapid development, a high human population, human mobility, and war. These factors created an environment that enabled the quick spread of diseases across Africa. It is therefore essential to gain insight into the historical context of some of these pandemics to prepare for any future intervention in the face of any similar occurrences. Within education, which is the focus of this paper, among many other factors, pandemics have also impacted the pedagogy variation and conventional shift from one teaching schemata to another.

More importantly, education is regarded as an essential factor in human development and the progress of society. This is because of the vital role it plays in mitigating the devastating effects of pandemics (Jones, 2022). However, several pandemics have consistently disrupted the regular operations of schools (primary, secondary, and universities) (Toness & Gecker, 2022; Jones, 2022). Currently, in the global context, most education pedagogies have shifted to online as people have embraced remote teaching platforms as the norm of the day. Most schools in Africa (primary, secondary, and universities), have also experienced the 'wheel of change' since the inception of the COVID-19 pandemic and have recently adopted blended learning (online and face-to-face) as their teaching methods, unlike before the pandemic when they were still engaging in face-to-face teaching styles (Comas-Quinn, 2011).

Despite the various research that has been conducted on the impacts of pandemics in Africa (Mulembakani et al., 2018; Ayega, 2020; Kohnert, 2021; Jones, 2022), as well as the historical overview of the pandemics in Africa and their implications on education (Kohnert, 2021), there still remains a dearth of literature that needs to be addressed, such as the long-term impacts of the pandemic on African education, the social and cultural factors that influence education during the pandemics, and the role technology plays in mitigating the impact of pandemics in African education, which have been underresearched.

Therefore, to bridge the gaps in literature and knowledge, this paper presents a comprehensive understanding of the historical impact of pandemics on education in Africa by examining how these disruptions affected access to education, learning outcomes, educational imbalances,

and lastly, exploring different strategies that could be employed to mitigate future pandemics and disruptions to education.

Therefore, this paper is designed to reach the following objectives and is guided by the following research questions:

The objectives of this paper are to (1) explore the different evolutions to African education, (2) examine the impact of COVID-19 and (3) recommend possible ways to prepare for subsequent pandemics/disruptions. Therefore, the key research questions are:

- (1) What are the different evolutions of African education?
- (2) What are the impacts of pandemics on African education?
- (3) How can the government and policy-makers prepare or deal with future disruptions/transformations in African education?

### ***Theoretical and conceptual lenses***

This paper is informed by Cultural Historical Activity Theory (CHAT), which is a theoretical lens that brings the concepts of history and culture towards understanding human activities (Foot, 2014). The activity theory, also known as Cultural-Historical Activity Theory (CHAT), originated from the writings of a few well-known Soviet academics, such as Lev Vygotsky, Alexei Leontiev, and Sergei Rubinstein. This theory was developed between the early 18<sup>th</sup> century and the mid-20<sup>th</sup> century by the Soviet theorists who laid the groundwork for activity theory (Cong-lem, 2022). Their work had a major influence on disciplines such as education, psychology, and human-computer interaction. Since then, researchers from all around the world have expanded upon and modified the theory to examine a variety of facets of human behaviour in many different settings. The CHAT theory believes that the cultural and historical foundations of a society are the best tools to understand how humans (subjects) interact, socialise, and respond to other humans, non-human agents, and their environment (Dafermos, 2018).

Since education is the key context of this paper, with this theory, the paper argues that school is a social system and community, where history and culture are tools to define and understand its functionality and how humans relate, communicate, socialise, act, and how meaning is constructed within this system (Clay, 2018; Dafermos, 2018; Veraksa & Veraksa, 2018; Foot, 2014). In addition, this paper also uses CHAT to define education systems and their historical transformations within the African space. The CHAT theory is relevant for this paper as it brings together the history and culture of education to understand the different

phases of evolution in education in an African context. It also expounds on how these cultural evolutions play a pioneering role in facilitating the induction of teachers into adapting ICT skills in digital teaching to students (Hassim, 2023).

## **Research Methodology**

This paper uses the CHAT framework to explore the stages of evolution in education in Africa from the pre-colonisation to the post-colonisation era and the impacts they have on teaching and learning. To reiterate, this paper is desktop research, which was conducted using the purposive sampling method to select articles from different research engines such as EBSCO, ScienceDirect, and Google Scholar. These articles were selected based on three criteria, which are: (1) space- African context; (2) most relevant to the purpose of this paper; and (3) appearing in the first 10 search results. Some of the key words that were typed in the search engines were as follows: (i) History of African Technology; (ii) History of Education; (iii) Western/Modern Education in Africa; (iv) Indigenous System of Education in Africa; (v) Modern Education Vs Indigenous Education in Africa History of Pandemics in the World, (vi) History of Pandemics in Africa, (vii) COVID-19 Pandemic and (viii) Impact of Pandemics on African Education. Thus, these keywords help to appraise the different phases of the African educational system and how they have been transformed over the years. The argument within this paper is thus generic but limited to the African context because most African countries, except for Ethiopia and Liberia, have a unifying history when it comes to education (Fafunwa & Aisiku, 2022).

## **Indigenous education in Africa**

Before the introduction of Western education by the European colonists, education in precolonial African society was indigenous and regarded as informal (Mosweunyane, 2013; Soreto, 2011). The origin of African education could be traced to Egypt in the northern region of Africa, dated as far back as the 1<sup>st</sup> and the 18<sup>th</sup> Century (Soreto, 2011). This indigenous education as practised in Africa was infused with the social, cultural, artistic, and recreational lives of the indigenous people (Soreto, 2011). It was also designed to not only pass on cognitive knowledge but also for moral conduct, civility, and vocational training (Olaoye, 2014). Therefore, the core primary standpoint of African Indigenous Education (AIE) was to meet the didactic and moral needs. This education enacted

appropriate social customs and ethics, such as being a good mother/wife or father/husband, in favour of peace and order, which are the core needs of the early African societies (Olaoye, 2014).

In addition, as opposed to the common assumption that AIE was barbaric and informal, indigenous education in Africa has elements of both formal and informal pedagogies. For instance, informally, learning took place through their daily life experiences and environmental influences (Soreto, 2011). While formal, learning took place through initiations, vocational training, and apprenticeships in various occupations, such as professional farmers, agriculturists, blacksmiths, security agents, builders, and many others (Emeagwali, 2014; Ezeanya-Esiobu, 2019). Hence, as much as there was no written textbook and syllabus, vocational training within the AIE was still structural and systematic (McGrath et al., 2020). Moreover, regarding formal subjects (such as mathematics and economics, for instance), Africans were trained to be economically independent and involved in sustainable and commercial food production (farming) (Clay, 2018). Jack (2011), for this reason, argues that there was no need for a formal Western education; the pre-colonial education was sufficient to provide skills, knowledge, and values useful to promote the life and continuous existence of African society. Nevertheless, because of not documenting the AIE system, some important contents, information, knowledge, and approaches to specific skills were lost between the original content creator, educators, and their protégés. An instance was that some useful information was also lost when the sole educators lost their memories due to old age or death.

However, knowledge, skills, and morals were still verbally passed from one generation to the next, which helped in knowledge sustainability for educational purposes (Diop, 1991; Mosweunyane, 2013). Some learned from their kinsmen, traditional rulers, neighbours, or skills acquired during joint training and skilled labour. Hence, informed by the CHAT theory, it is conclusive to agree that there were educational communities, engagements, socialisation, and vocational institutions in Africa against the assumption that education was introduced by Western invaders (Eicker, Haseloff, & Lennartz, 2017). Moreover, since the essence of any form of education is to share and learn new knowledge useful for an individual and a society, it is therefore arguable that precolonial education had knowledge impacts on African citizens and their societies before colonialism (Seroto, 2011).

**Table 1.1** below summarises the structure of African indigenous education before the disruption of the Western form of education.

Table 1.1. African Indigenous Educational System

Education systems	Informal education system	Formal education (Vocational training)
Forms of education	Traditions, legends, tales, storytelling, rituals, proverbs, myths, etc.	Farming/agriculture, hunting, building, blacksmithing, etc.
Platform	Informal settings such as at home, under the tree, on the way to/from the farm and community meetings.	Practical mentorship, training at the location of the vocation and/or workshop.
Process of Education	Orally, from adults to children, parents to children, from one generation to the other	Orally- from experts to novices or trainees (like from father to children.)

(Mosweunyane, 2013; McGrath, 2020; Ezeanya-Esiobu. 2019; Olaoye, 2014)

## Pre-colonial Civilisation and Technology in Africa

Early African societies mostly passed knowledge and information orally. This orality did not favour African history, as most historical records were either missing, distorted, or forgotten. Hence, other continents and even some Africans themselves doubt that there was any form of civilisation or technology before colonisation (Ezeanya-Esiobu, 2019; Wane & Munene, 2019). Specifically, “there was an Eurocentric view that Africa was a *tabula rasa* before colonisation, that is, a continent with no history, education, or civilisation” (Kaya & Seleti, 2013: 36). In line with such derogations is the propaganda that Africans lived on trees before the colonial invaders. They construed African civilisation as unscientific, primitive, and unfit for globalisation and westernisation (Kaya & Seleti, 2013). Whereas, long before colonisation, civilisation could be traced to five (5) thousand years ago, in which some African countries, such as Egypt, Congo, Zimbabwe, Ghana, Nigeria, Nubia, and Mali, had evidence of social order, governance, business, technology, and civilisation. For example, between 4, 000 BCE and 3,200 BCE, Egypt had some form of civilised and established society and an existing agricultural economy (Falola & Fleming, 2003).

This is strong evidence that shows there was a working system in some parts of Africa that lasted until the present day. The Kingdom of Egypt was the leader in technology and civilisation in Africa and around the world at large. In 4000 BC, Egypt already had one of the earliest systems of agricultural technology and cropping. In addition to technological success, Egypt had technological constructions such as the massive pyramids (Nicholson & Shaw, 2000) and developed tools to create hieroglyphics and make ploughs (Agaiby, El-Ghamrawy, &

Ahmed, 2013). Another example of African civilisation can be seen in Ethiopia, which is regarded as one of the oldest civilisations in the world (Tomaszewski & Gervers, 2015). In Northern Ethiopia, the Kingdom of Aksum during the 1<sup>st</sup> to 8<sup>th</sup> centuries CE. was regarded as one of the wealthy African civilisations that thrived for different centuries as well as controlled vast territories with access to large trade routes that linked to India, the Middle East, and the Roman Empire (Phillipson, 2012). Other evidence indicates that there were medical facilities, lock-making, policing systems, calendars and forecasting, technology for toothpaste and breath mints, furniture, barbers, make-up, and wigs, as well as ink and bowling, before the advent of colonisation in Africa (Forbes, 2020).

### **Western Education in Africa: The First Disruption to the existing Indigenous Education**

African countries got their independence from various forms of colonialism. Apart from the history of abuse, marginalisation, and slavery, the colonial masters left a unitary system of education in Africa, which distorted the existing indigenous system of education. Colonialism brought a system of education that implemented European education systems and languages while eradicating indigenous ones (Wane & Munene, 2019). African languages were called vernacular, and African cultures, traditions, beliefs, history, and ways of life were considered barbaric (Mosweunyane, 2013). These were the tools (Dafermos, 2018) used to devalue African culture and systems (Ezeanya-Esiobu, 2019). The motive behind Western education was to disorient Africans because of the notion that their cultures and ways of life were backward and primitive (Jensz, 2012a, 2012b; Mosweunyane, 2013).

The Christian missionary movement to Africa also complemented the colonial agenda to westernise Africa (Manala, 2013). The missionaries had a different underlying intention and motive: to condemn the slavery and brutality of the colonialists and introduce Christianity and education to Africans (Ross, 1955). However, the missionary movement condemned African traditional religion and worship as idolatry and tagged African indigenous practices, songs, rituals, and culture as satanic (Brain, 1982; Ross, 1955). This movement, to a large extent, fostered the achievement of the colonial masters' agenda of enforcing their system of government, culture, and education on the African community. African dance, music, literature, and languages were either labelled uncivilised by the colonialists or satanic by the missionaries. This, according to CHAT, is ascribing supremacy to the colonialists and their agendas (subjects)



over Africans (objects) (Clay, 2018). Hence, African practices and languages were discouraged as a running-mate with the Western or Modern Education of the colonialists (Ezeanya-Esiobu, 2019; Mosweunyane, 2013).

The European colonists therefore partially abolished the AIE systems (Ezeanya-Esiobu, 2019). Western education was also made popular when power, privilege, and economic breakthroughs were equated with the amount of knowledge one has acquired in this education. Competency in the languages of instruction, such as French, English, and Portuguese, were criteria for determining one's membership in the imposed education and discourse community (Mgqwashu, 2006; Onwauchi, 1972). The effect and impact of this was that Africans did not just lose their social, cultural, traditional, historical, religious identities, arts, dance, literature, and geography; they also lost their indigenous education system, along with their language and identity, to the foreign invaders (Bude, 1983). Thus, success in education is attached to the amount and level of participation within the Western education community (Jensz, 2012b). At this point, there was a shift in educational development in Africa from the AIE system to the colonialists' system of education (Yamada, 2018). Fanon (1963) notes that colonialism was an era of imperialism in education in Africa. Educational and cultural imperialism are "the worst forms of imperialism since they effectively destroy the education, memories, values, and unique consciousness of the colonised, and force an alien education and memory on them" (Ezeanya-Esiobu, 2019: 34).

Since then, the imposed Western education has also never been stagnant; it has constantly undergone progression and improvement. However, the more it develops, the more it erodes the AIE system (Yamada, 2018). With the theoretical outlook (CHAT), the intention of this paper has not been to argue historically and culturally what phase of education is better for Africa but to examine the different and unconscious launch of each educational phase from the past to the present and to use these educational transitions as a tool for preparedness in the phase of futuristic evolutions.

## **History of Pandemics in Africa and Globally: A Disruption to Western Education**

There has always been an occurrence that has an impact on an existing system of education. Education has been undergoing changes in its

forms, systems, and deliveries over time. The different unprecedented interceptions have usually reformed it. Besides colonialism, wars, and political crises, one of the greatest interceptions that impinged on education has been the different pandemics across the world and the African continent. This paper examines the impact of pandemics on the education system, first globally and lastly within the African context.

The Corona Virus (COVID19) that started in 2019 was not the first pandemic in Africa or the world. Several disease outbreaks caused millions of deaths in Africa and other parts of the world before the advent of COVID19 (Adedoyin & Soykan, 2023). According to History.com Editors (2020: 1), as human society grows in population and civilisation, "diseases struck them down". Pandemics, over the years, have been the worst enemies of humankind. Communicable diseases began as far back as 10,000 years ago, when human beings were involved in hunting and an agrarian lifestyle. (History.com Editors, 2020). This established the fact that long before COVID19, many pandemics ravaged human populations in history. This section will briefly illustrate that COVID-19 was not the first pandemic. As represented in the table below, pandemics are traced globally and, lastly, narrowed down to the African context.

Table 1.2. Pandemics in the world between the 18th and 19th centuries

Pandemics	Year	Places	Deaths
First Cholera Pandemic	1817	Russia, and spread worldwide	150,000
The Third Plague Pandemic	1855	China and India	15 million
Fiji Measles Pandemic	1875	Australia and Fiji	40,000
Russian Flu	1889	Europe, North America, and Africa	360,000
Spanish Flu	1918	China, Canada, North America, Europe	50 million
Asian flu	1957	China, USA, England	1.1 million
HIV/AIDS	1981	Worldwide	35 million
Covid 19	2019	Worldwide	6,948,764

(History.com Editors, 2020)

In addition, Germany, Italy; the *Cyprian Plague* (250 A.D.), *11th Century*: thousands in Europe and around the world died due to *leprosy*; *the Black Death* (1350 A.D.) killed one-third of human beings around the world; *The Columbian Exchange* (1492) killed people around the Caribbean and Europe; and *The Great Plague of London* (1665) killed almost 20 percent of the people in London (History.com Editors, 2020).

There are also some pandemics on the African continent that include fatal diseases, as represented in **Table 1.3** below:

Table: 1.3. Names of some pandemics in Africa, including COVID19

Pandemics	Year(s)	Places	Deaths
Ebola	2007-2023	Congo/Uganda, Nigeria, Sudan, primarily in Guinea, Liberia, and Sierra Leone	28, 616
Malaria	2000-2022	African countries	625,000
Measles	2017-2021	Many countries in Africa (Mostly children)	170.773 (estimate)
Cholera	2008- 2018	Some countries in Africa	7601
Meningitis	2914 alone	Africa	1131
Yellow fever	Annually	Africa	More than 29,000
COVID19	By 2022	Africa	257,984

(Bernault, 2020; Centers for Disease Control and Prevention, [CDC] 2023; Duales, Yokouide, & Alemu, 2010; Howard, 2012; History.com Editors, 2020; Statista, 2022; WHO, 2023).

Within the African context, some other pandemics occurred as early as 430 BC in Libya, Ethiopia, and Egypt, called *Athens* (suspected to be the typhoid fever of today), that killed almost two-thirds of the human population in those areas. *Antonine Plague* (165 A.D.) killed many people in Ethiopia, Northern Africa, Rome, and Egypt, though also in Britain; *Justinian Plague* (541 A.D.) killed about 50 million, first in Egypt, Palestine, and later around the world.

In addition, within the South African context, Howard (2012), in his book, which was published long before the occurrence of COVID-19, titled *Epidemics: The Story of South Africa's Five Most Lethal Human Diseases*, remarkably states five different devastating pandemics in South Africa between 1713 and 2012. He lists them as *Smallpox* (1713-1893), *Bubonic Plague* (1901-1907), *Spanish Influenza* (1918-1919), *Polio* (1918-1963), and *HIV/AIDS* (1982-date). Thus, as represented in tables 1.2 and 1.3, against the assumption that pandemics only occurred during the Stone Age is evidence that COVID19 was not the first pandemic in the world or in Africa.

In line with the above records and with the purpose of this paper, it shows that education has witnessed several forms of pandemic disruptions. Some left a devastating impact that history cannot forget. For instance, Ebola, though limited to a few countries in Africa, killed

more than 28,000 people and forced some schools in Sierra Leone to close for eight months (Powers & Azzi-Huck, 2016). Radio was used to maintain continuous learning. The school system of enrolment and other activities were modified to accommodate the Ebola health crisis. Wearing gloves became part of the school uniforms. Teachers were trained as health workers; just like during the case of COVID-19, thermometers were used to check staff and students' temperatures before accessing the school premises; most learning activities went back to the basis, while psycho-social support became a compulsory school unit (Powers & Azzi-Huck, 2016; Watt, 2020).

However, this is incomparable with the disruption caused by COVID-19 in Africa and around the world. Being an airborne disease, COVID-19 hit the world and affects education globally, unlike some that were limited to the African continent, such as the case of Ebola. The effects on education were increased dropouts, disruption of the school calendar, inconsistent school attendance, emotional and psychological damage, death and illness, the closing of school buildings, and lockdown (Cluster [ESIEID] 2022). Ministries of education are now compelled to restructuring the education system, curriculum, and training that will incorporate awareness, managing, and creating policies and regulatory frameworks that will redefine education service, quality, and provision in the phase of this pandemic (Shepherd & Mohohlwane, 2021).

## **21st century's Online/Digital Era: A disruption to existing education**

Various educational reformations in schools and universities in most African countries, like South Africa, Ghana, Kenya, Tanzania, and Nigeria, were not only disrupted by the vanquishing impact of western education, but other causes of transformation are traceable to some socio-political challenges, pandemics, and the revolution of technology (Wane & Munene, 2019; Watt, 2020; Wette, 2018). The recent disruption, which is the industrial and technological revolution, does not displace the existing Western education but modifies its form of delivery, unlike how the Western education system completely submerged the AIE system. In this phase, online pedagogy offered a platform for knowledge sharing as a learning community where members (teachers and learners) engaged in education practices (Watt, 2020).

The general assumption is that technology as a tool of pedagogy becomes more popular during Covid 19, especially in Africa, whereas, it has always been in existence before the emergence of COVID-19. With

technology, COVID-19 would have had little impact on education if online platforms have been a popular mainstream of teaching in Africa. It poses several benefits and challenges (Rajab, Mohamamad, Gazal, & Alkattan, 2020). However, a considerable body of knowledge identifies the effectiveness and benefits of the recent education transformation and online teaching system in education (Rajab et al., 2020; Read, 2020). These benefits add reasons for the adjustment to the existing Western education system, not just condemn it. Rajab et al. (2020) indicate that engaging in online education is a complex phenomenon. Nevertheless, Butanai et al. (2021) posit that people embrace technology as a tool in education, as it has the potential to transform every educational system by expanding the modern education system, making learning easy, providing online platforms that are accessible from the comfort of their homes, making it easy to explore, and encouraging the development of new pedagogical methods (Read, 2020).

The report by OECD (2020) indicates that, unlike the colonial's bequeathed classroom system of education, online education enables learners to develop and gain digital skills, which is the culture of the new learning sphere of today. Online education also strengthens the learners' learning engagement and enhances their academic performances by encouraging innovative thinking and creativity within the educational space, making the imposed educational system of the colonialist period archaic. This is supported by Mpungose (2020) who infers that the online learning platform provides a discourse community where students now adapt to a new learning culture. These include gaining control over the time they spent learning, as well as developing a critical spirit and self-learning. According to the CHAT theory (Veraksa & Veraksa 2018), students now have access to the culture, participate, and socialise as members of the educational community from the comfort of their homes.

Unlike how Western education vanquished AIE, technology and digital tools are the recent disruptions that bring a new form of culture and educational transformation where ICT becomes a mechanism for learning. The effect of this new delivery approach (digital/online) is that students get socialised into the new 21<sup>st</sup> century educational system of community, though this effect was only more pronounced during the COVID-19 pandemic in Africa (Read, 2020). Unlike the other past pandemics in Africa, COVID-19 pandemic caused more devastating gaps in teaching and learning. However, digital and ICT mechanisms in this new era came up as transformative interventions through which participation, socialisation, and engagement for educational purposes and

active learning are maintained. Thus, COVID-19 would have been less impactful if digital and technological tools were used to their full potential within the online space (Mujtahid, Berlian, Vebrianto, Thahr, & Irawan, 2021).

Emeagwali (2014) further states that during this era, people acquired different skills and vocations orally, and training was passed from an expert to a novice. The difficulties in transferring the teaching process to the online platform are still challenging because teachers were not able to find the right teaching strategy to use online, while this is not yet a popular culture in the teaching space in most African societies (Hassim, 2023). Ikedinachi et al. (2019) also note that other challenges are due to the vagueness and misunderstandings of what to teach, how to teach, learners' workload, and the teaching environment, which does not encourage online classes such as Zoom, Google, Blackboard, or Moodle. For instance, in South Africa, the curriculum and assessment policy that guides the teaching and learning process was designed within the traditional education system, which has not embraced the teaching guide for online and digital space (Ramrathan, 2021).

Regardless of the little preparation in place, the learning and teaching community had to embrace the move towards technology, digital, and online teaching as an emergent response to COVID-19 (Gautam, 2020). It will take quite some time for both students and teachers to be integrated into the discourses and practices of this new educational community of the 21<sup>st</sup> century if we do not learn from the impact of COVID-19 (Mpungose, 2020).

### **Lessons from the past: A preparation for any subsequent interception to Education systems in Africa**

Lesson One: (Face-to-face teaching has less potential to withstand disruption)

The African education system before the COVID -19 pandemic was mostly based on face-to-face learning since the inception of the colonial system of education. According to Jansen (2004), face-to-face learning is considered traditional and classroom-based. Learning happens in the presence of a teacher who is dumping knowledge into students using traditional methods (teacher-centred) and traditional resources such as textbooks, chats, chalkboards, and others (Mpungose, 2020). This was the education system availed to Africans by the colonial masters after eradicating the indigenous education system, which was also a face-to-

face facilitation (Okpalike, 2014). This failed completely in the phase of COVID-19.

Recommendation: (Technology/digital and online pedagogy should be embraced)

Integrating technology into the classroom has the potential to benefit students' learning as well as their ability to participate in the 21<sup>st</sup> century digital society. However, instead of being seen as another disruption, digital and online education is a modification of Western education, while research has shown that deploying technologies to help teaching and learning processes is always efficient for present and future education. Digital resources should be more embraced in Africa and be employed during the teaching process (Read, 2020; Schleicher, 2017). The unpreparedness for COVID-19 pandemic and the lockdown and social distancing policies that hit the world in 2019 necessitate the need for modified teaching strategies, shifting learning spaces to digital and online (Friedman, 2020). This was instituted with the already ongoing online system of education, but considerable mainstream approaches to socialising within the educational online space have not been provided to induct both teachers and students into this scheme (Schleicher, 2017; Read, 2020).

## Lesson Two (Provision of computer devices and the Internet)

In terms of Internet accessibility, Africa is still behind other parts of the world. In 2017, only 18% of African households had access to the Internet, compared to 84.2% in Europe. With so many benefits, online education also comes with some challenges. A report by the InternetWorldStats service (June 2019) indicates that only 39.8% of Africa's population has access to the internet, and only 11.5% are active users, while almost 800 million individuals do not own laptops. This reveals that the African countries with the most internet users are South Africa, Egypt, and Morocco. Hence, one of the obstacles to having an internet connection in Africa is that students and teachers lack computer competence (Kubickova, 2019). Furthermore, Internet permeation varies significantly by country and location in Africa, with most urban Africans having more access to mobile broadband Internet than many people in distant rural areas (Kronke, 2020). They must rely on public resources such as schools, universities, and internet kiosks to access the internet (Trines, 2018), which are not always within easy reach. Therefore, this

new phase of educational socialisation does not arise without some indefinite challenges, but if well managed and planned, the few resources may indemnify against any future unprecedented barrier that can disrupt an existing system of education, such as cases of the COVID-19 pandemic (Alshamrani, 2019; Wette, 2018).

#### Recommendation on Lesson Two:

The Ministry or Department of Education, from the centre to the provinces and down to the municipalities, should invest in technology, its devices, and the internet for education. Every learner should have access to technology and a digital learning system. The various departments, as stakeholders in developing education, should make this a policy or an upmost task. Their policy direction should have education socialisation in view, and of course they should learn lessons from the Technology Determinism Theory, which is a reductionist theory that assumes that a society's technology progresses by following its own internal logic of efficiency while determining the development of the social structure and cultural values. In other words, technology shapes social change. It determines our future our society, and, to a large extent, how individuals think in society. A good example is an argument put forward by Azam, Shakirullah, Sadaf, Owais, & Khan (2020) that the advent of social media has led to social change. Individuals interact more through social media. In the same sense, the moment it dawns on policymakers in education that the technology called the internet has become necessary in the 21<sup>st</sup> century learning process, they will vote for a budget to fund the availability of hardware accessories like laptops and internet connectivity for both tutors and learners. With this provision, education space will be secured in the advent of any subsequent lockdown where teaching and learning online will take place without having to be affected (Mujtahid et al., 2021).

#### Lesson Three (ICT skills should be one of the mainstreams in the teaching profession)

Moreover, teachers' lack of ICT-related skills and knowledge is one of the most significant barriers to students' engagement in knowledge discourse, practice, and achievement of the new phase of the educational transformation (Barakabitze et al., 2019), making Africa under-prepared for any future disruption to education. Relating this new tool of educational socialisation to CHAT theory, even though some authors



maintain that online education is once again an attempt to re-colonise academic space (community) in Africa to perpetuate their status of power that may lead to intellectual homogenisation (Barakabitze et al., 2019; Kronke, 2020; Trines, 2018), African communities should still create their own educational materials that are contextually relevant. Rather than seeing digital education as a disruption, it should be seen as a wealth of arms against future unprecedented disruptions (Trines, 2018). The beliefs and attitudes of teachers, which are critical determinants of ICT use and integration in teaching and learning, should be encouraged. The effect of COVID-19 would not have been devastating if Africa had kept pace with other continents in digital and online education.

### Recommendation on Lesson Three

Online platforms are a tool to complement Western Education, not to instill it. It is therefore important for education agents to have a lot of knowledge of ICT and how to navigate online pedagogy. The key concept, therefore, is to ensure that teachers and students are familiar with ICT (Ikedinachi, 2019), have equal access to it, and still maintain academic pedagogies, socialisation, engagement, and receive feedback to function effectively in the education world (community). They should also be ICT-relevant within the larger community, as education is sailing towards becoming solely a digital sphere (Bakrania, 2020; Alanezi & AlAzwani, 2020). Without these, our only response is to combat the drawbacks caused by COVID-19 in education, without taking note of its consequences on students' socialisation and academic productivity within the educational space, and as a warning against future disruptions (Hu & Huang, 2022). It is therefore important for every institution, government educational agency, and all school heads to not just provide digital and online resources but also provide orientation for students and teachers on how to navigate the online and digital education systems. There should be proper training and approaches through which the new trend of educational delivery (digital/online pedagogy) can facilitate a better learning process than the already distorted physical classroom system of education.

### Conclusion

From the above discourses, this paper used CHAT theory to explicate the trend of educational development in Africa, using history as the

narrative tool to unpack how students have been taught educational knowledge and vocational skills from the past to the present (Bollong et al., 1997; Clay, 2018; Wette, 2018). On this note, this paper argues that education has undergone several phases of modifications and disruptions in Africa. The bequeathed Western education has also been disrupted by advancements in ICT, long before the advent of COVID-19, so there is no constant linear education system in African history (Hu & Huang, 2022). The COVID-19 pandemic, though the most recent, was not the only one that has disrupted the Western Education system in African history (Bernault, 2020; History.com Editors, 2020). However, COVID-19 further emphasises the need for an ICT mainstream approach, seeing the advantages of making the learning process easier and more effective (Gautam, 2020).

The bottom line is that remote and digital learning should continue to expand rapidly in Africa, with or without the COVID-19 pandemic (Moloi & Mhlanga, 2020). Physical classrooms, libraries, and other forms of traditional institutions are unlikely to be completely replaced by digital education platforms anytime soon. Hence, the culture of online education, on the other hand, should be encouraged to serve as a valuable complement to Western education, just like distance learning colleges that have been in place for decades. Hence, just as most distance learning institutions were not affected during COVID-19's lockdowns, investing in technology and providing online and digital education in Africa will be an escaping route in the event of any subsequent disruption or pandemic (Mpungose, 2020). However, there are indication from schools that they have started moving towards digital learning with a view to appropriating all the benefits that come with it, including cost reduction (Adedoyin & Soykan, 2023).

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