Challenges of Online Teaching and Learning in the Crisis of Covid 19 in Lupane Rural Schools in Matabeleland North in Zimbabwe

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Abstract: Online learning and teaching during COVID 19 lock-downs and the restrictions that accompanied learning programmes in Lupane rural schools was a challenge. Only learners from the elite, mostly urban families were accessing education leaving the poor disadvantaged mostly rural school learners behind because of lack of ICT facilities. The purpose of this study was to establish why online teaching and learning was a challenge in the light of the COVID 19 restrictions. Its ultimate aim was to reveal the need for equity in online teaching and learning to all learners despite their geographic location. Equity theory underpinned the study as it addressed equality in education issues. This study adopted a qualitative approach and a case study design. In-depth structured interviews and virtual focus group discussions were used to collect data from purposively sampled participants which was thematically analysed. The study revealed that there was lack of electricity, computer facilities and gadgets, as well lack of connectivity in most rural areas. It concluded that there was no equity in education in Zimbabwe during this period as the impoverished learners were not learning. The study recommended that there was need for the Government to provide access to learning through availing funds for educational resources and that the Non-Governmental sector could assist the less privileged in acquiring computer gadgets for online learning.

Keywords: Covid 19 restrictions, disadvantaged rural learners, teaching and learning, equity,

Introduction
This paper examined challenges faced in executing online teaching and learning during the COVID 19 lockdowns and accompanying restrictions in Lupane rural schools in Matabeleland North in Zimbabwe. While Zimbabwe aims to promote the right to education of all the children, Government of Zimbabwe (2019), most learners in Lupane rural schools had challenges of accessing lessons during there strictions necessitated by the lockdowns. A study of this nature was critical, given that when there is inequity in accessing education that is a scenario that links with underachievement, which further breeds poverty in sub-Saharan communities (Akala & Davila, 2016; Graven, 2014). There has been advocacy for equality of access to education since the millennium development goals which called for all learners to at least complete a course of primary education by 2015(Lomazzi, Borisch & Laaser, 2014).This call came about when it became clear that there were many variations globally where some learners did not access education fairly and equally (Forum for African Women Educationist Zimbabwe (FAWE, 2017).

Background and literature

In March 2020, most countries all over the world ordered schools to close in an attempt to mitigate the spread of COVID-19, leaving students, teachers and parents in a state of uncertainty. While efforts were made to immediately adopt distance learning, a broad consensus soon made the observation that most disadvantaged students were falling even further behind, magnifying existing educational disparities in Europe and around the world (Fokken, 2020 Stein, 2020; Sweeney, 2020). Huber, Günther and Schneider (2020) alluded to the fact that inequity in education is something which is virtually everywhere around the world. In Zimbabwe the educationally disadvantaged learners in the current situation are those in rural setups who also happen to be the learners from socio-economically disadvantaged communities. In education, inequity is a huge issue in schools as those not serviced remain underdeveloped and eventually under-achieve or drop out of school completely when they become over-age. This has become the reality for rural learners in Lupane during COVID-19 lockdown. Research points to the disparity of lack of access to education and the closely associated depravation consequences that goes with it as common to rural areas, especially when comparing them to the urban set up. Unfortunately, the problem runs the whole gamut from racial disparities and lowly placed socioeconomic status communities, to gender inequality (Sheard, 2021).COVID-19 seems to have deeply unsettled school systems around the world and ravaged opportunities for the current generation of learners and young people. As traumatic, dangerous and destructive as the current pandemic has been for teachers, families, employers, politicians and learners specifically in rural places, its effect on what they want from school and what school should be, has been radical and terrifying in a different kind of way (Sefton-Green, 2020).

Failing to access online learning by rural school learners has been evident in the most parts of Africa due to the impact of COVID-19 lock-down restrictions on a broken and unequal education system. The learners from rural communities in Africa have been cut off from education during extended school closures (Sheard, 2021). Sheard further highlighted that in Southern African countries' rural areas, there are approximately 10% of learners having an internet connection while 90% are struggling to access it and cannot access learning the duration of the pandemic. The COVID-19 pandemic has made a broken and unequal system even worse, putting students from poorer communities at a huge disadvantage because remote learning is not an option for the vast majority (Mohamed, 2021).

The schooling system is so under-equipped that given the pandemic restrictions that have necessitated online learning without readiness for it, this has all but ended education for many learners, especially those from already disadvantaged communities. Unless urgent access is enabled, the future livelihoods of most of an entire generation will be at risk (Mohamed, 2021).When schools first closed in March 2021, for almost three months, there was widespread lack of internet access needed for remote study. Nationally, almost 22% of households have a computer and 10% an internet connection. In Matabeleland North Province, about 3.6% have computers and 1.6% have access to the internet at home. By contrast, students from urban communities with computer access have been able to continue their education particularly through remote learning provided by better resourced schools (Sheard, 2021).

In Zimbabwe the school shutdown that effected in March 2020, did not only interrupt learning of urban learners, but also severely affected access to education for learners who depended on Non-Governmental sponsorships for education in rural areas. The Government could not afford to supply schools in less privileged communities with resources they needed to provide online learning environments during Covid-19 lockdowns. As a result, all the Government schools had to shut down due to lack of e-Learning resources during the Covid-19 pandemic period (Gautam, 2020).

School closure during the lockdowns in Lupane District increased the education gap of rural based learners and disproportionately affected such disadvantaged learners. The schools closure removed most rural school going age learners from their physical learning environment in the school for over a year (Shumba, Mutanga & Macha, 2020).The loss of instructional time to learners who would eventually be examined, created inequality especially to the learners based in remote areas as compared to urban ones because of lack of access to eLearning (Todd & William, 2018). For Lavy (2015), the extent to which the loss of rural school-based instructional time and other school-based programmes have harmed learners' achievement outcomes is irreparable. This has raised technical issues, put particular pressure on learners from low-income, marginalized groups and exacerbated inequalities among learners. It was because of this background that a study of challenges of online teaching and learning in the advent OF COVID-19 in Lupane rural schools in Matabeleland North in Zimbabwe took loft significance.

Research question

The question that guided this paper was: Why is online teaching and learning during the COVID-19 lock down restrictions in Lupane rural schools a challenge?

Theoretical framework

Carrel and Dietrich (2015) indicate that equity theory was first developed in the early 1960s by Adams. This theory is concerned with defining and measuring the rationale and satisfaction of employees to try to maintain a balance between what they give to an organization against what they receive. The theory suggests that the basis of satisfaction for employees is a balance of what they receive equated to what they give. It has been suggested that this also applies to learners in that the effort they give should balance with the support they receive. Equity theory is based on the principle that people's actions and motivations are guided by fairness and that discrepancies in this fairness in the education system will disrupt the learning. The growing importance of education equity is based on the premise that an individual's level of education directly correlates to future quality of life. Therefore, an academic system that practices educational equity is a strong foundation for a society that is fair and thriving. However, inequity in education is a challenge and quite often ropes innegative socio-economic factors as happened in the pandemic engineered lockdown restrictions that necessitated ICT equipment for online lessons that the impoverished rural learners could not afford hence their getting side-lined.

From the above, equity is concerned more about inequality arising from the differentiated expectations that people hold for urban and rural learners, based mostly on the differences of their geographical locations but further enhanced by their low work earnings as well as the scanty resourcing of the learning institutions. It is more concerned with balancing the resources in learning organizations and eliminating disparity at all costs. It includes eliminating inequality existing in teaching and learning in the crisis of COVID-19 in Lupane District in Zimbabwe.

Methodology

Research for this paper was situated in the interpretive paradigm hence used a qualitative approach that stresses the idea of truth being socially-constructed by the participants and which allowed researchers to probe into subtle issues expressed by the participants (Denzin & Lincoln, 2011; Berger & Luckman, 2014; Anderson, 2014; Argyris, Putnam &Smith, 2015). Being of qualitative nature and using a descriptive case design, the study which was primarily exploratory sought to unearth realities on a few respondents at one university and a high school in Lupane. It deeply examined reasons why e-teaching and e-learning during theCOVID-19 lockdown was a challenge in rural areas and measures that could be put in place to curb the existence of inequality. The sample of 13 learners from a secondary school and 5 lecturers were purposively selected. For Creswell (2008), careful sampling improves trust worthiness and enhances the credibility of research results. Semi-structured face-to-face interviews and focus group discussions were employed to solicit data. Susan (2018) contends that the finest expectation for understanding fairness in qualitative approach is through triangulating data collection techniques.

Discussion of findings

The findings emerging from data revealed that there is a support capacity gap among parents so that only those who can afford buying gadgets and internet bundles for their learners to learn online are the ones who enable their learners to access education in Covid-9 times. It was further revealed that the percentage of learners that access e-learning are those who stay in the proximity of Lupane Centre where generally there is a working population of educated. On this issue one participant observed:

> *Pre-existing disparities among learners in terms of socio-economic status have worsened. Learners in rural areas in Lupane have inability to access equipment such as laptops to pursue their education online. They struggle to access digital facilities making them unable to follow their homework because of the unavailability resources such as smart phones, tablets and laptops.*

The above findings imply that learners from low-income families are more likely to be excluded from online distance learning because of their inability to afford relevant devices. There is an accumulated disadvantage from the period of colonialism when blacks hardly accessed education and education was only for the elite while the low income communities remained uneducated because of not affording to send their children to school (Pitcock & Boulay, 2020). For Girard, Vanston and Faïd (2021), prolonged months out of school set back rural based learning and development. This is particularly concerning since learners from disadvantaged backgrounds already achieve less on average than their better-off classmates. The pandemic is reducing the learning time that learners normally spend in school and this may have a profound negative effect on their achievement.

The findings also revealed that rural communities had failing internet connection as well as a calm environment, which are necessary conditions for learners to study from home. On this issue, one other participant said:

> *Internet connection is an issue, even though learners are only 30km from Lupane Centre. The teachers cannot afford buying bundles to teach five or six classes as it is expensive to login using data bundles. It become seven more complicated when the teachers ask learners to put the cameras on for video presentations as this is too heavy for their connection. Online learning also made it difficult to access to course materials during COVID-19.*

The above findings suggest that online teaching and learning conditions have been obstructed by the challenges of accessing connectivity and the expenses that are attached to buying data bundles. Again, disparities among backgrounds have been worsened, as the access to an unsupportive learning environment is related to socio-economic status. According to Fokken (2020), the shift from face-to-face to distance teaching did not come without challenges, the main ones being access to technical infrastructure, competences and pedagogies for distance learning and the requirements of specific fields

The results revealed that rural based learners have challenges in accessing online education, such as the possibility to work in groups, where they learn from others or share the little resources with others. It was also noted from the findings that learners cannot debate in discussion groups making it more complicated to share ideas, as such learning platforms create better understanding than formal the teacher led lessons. This was supported by one of the participants who insisted:

> *When learners are taught together, they are constructive, their ideas bounce on each other. This is not possible during on-line learning which is further complicated by the fact that some villagers are positioned far away from the boosters that enable connectivity.*

The above sentiment implies that learners who are based in rural areas have difficulties of accessing education online, since they not able discuss in groups, or share their ideas with their classmates as they do when they are in a face-to-face situation. It also implies that in an online learning situation, learners are not able to share the resources some learners have to assist the less privileged ones as they normally do when they are in a classroom scenario. The physical distance of students from school and the distance of villages from the connectivity catchment areas is a challenge to online learning especially to group work during COVID-19 (Fiorini & Keane, 2021).When it comes to technology, Orlando and Attard (2015) argue that teaching with technology is not a one size fits all approach as it depends on the types of technology in use at the time and also the curriculum content being taught. Incorporation of technology provides additional factors for consideration in terms of teaching pedagogy and construction of learning experiences. However, in creating individually tailored differentiated instruction for each learner within and across each cohort, there it does not become possible to include collaborative learning tasks (group work) where individual differences between and across cohorts can be highlighted (Graham & Misanchuk, 2004).

It was noted from the findings that the massive disruption to rural based children's education during the pandemic was the failure of the Zimbabwean Government to dedicate serious attention and resources to lessen, and correct the long-standing inequalities in education systems that have been highlighted before COVID 19. On this aspect one participant added that:

> *The Zimbabwean Government is failing to help the underprivileged learners to access education online during the pandemic period. It should not merely focus on the return to school of all learners whose education the pandemic disrupted.*

The findings also reflect that the Zimbabwean Government has failed to assist rural based learners with the resources that are needed to carry out online learning from their residential place during the pandemic lockdown periods whereas most of the urban based learners were able to learn online. The urban learners were better equipped to learn on line because their parents earn more than rural parents and so are able to purchase ICT equipment such as smart phones and tablets. in addition such parents have better advocacy strategies than rural folk and so can be better provided by government as well as NGOs. The results of the current study are in agreement with Mohammad (2017) who observed that most of the governments in the whole world failed to offer assistance to rural based learners to access online courses in educational institutions during the Covid-19 pandemic. They did not support, nor and provide excellent opportunities for learners and institutions to switch to

online learning after the outbreak of the pandemic. Thus all the rural based learners were left behind in terms of education as compared to urban learners. The rural based teachers and children lacked the means to learn online as they did not have equipment. According to Sicilia (2005) a lot of teachers in rural schools complained about how difficult it was to have access to personal computers. This is because teachers earn low salaries in an economy with hyperinflation making their lives a constant struggle to survive. As a result they are not able to raise money for personal ICT gadgets and other related facilities. On the other hand in school, Sheard (2021) observes that the inaccessibility of ICT resources is not always merely due to the non-availability of the hardware and software or other ICT materials within the school. It may be the result of one of a number of factors such as poor resource organization, poor quality hardware and inappropriate software (Sheard, 2021).

The data also revealed that there is lack of parental support in terms of home to encouragement learners to join online learning. In views expressed by parents, online learning comes with extra expense to their slim budgets. Most of the parents in Lupane are busy sourcing food and other basics for the welfare of family. It was further observed that most parents are not used to technology. Arguing on this issue, one of the participants added that:

> *We struggle a lot to raise fees just to get our children to be enrolled in school. Uniforms, exercise books and other requirements for their upkeep are an added burden to us. Since most of us stopped all activities for raising money such as selling firewood, vegetables and wild-fruits due to lock-down restrictions, we are not able to raise money for gadgets that support online learning.*

The above sentiments are in agreement with Kane, Carruth, Lurquin, Silvia, Smeekens, Von-Bastian and Miyake, (2020) who postulate that parents spent about $100 more than they did last year, prepping their children for learning at home. While $100 may not seem like a lot, it is a massive chunk for most parents who remain unemployed and for those who lost their job at some point during the pandemic. Lower-income families feel the pinch as they need to overcome more obstacles for their children to successfully access learning of any kind and this become seven harder when learning is online because of the heavy investment needed for ICT equipment. Unlike in years past, parents are now spending more on supplies to set up a learning environment at home, along with the regular school supplies. Roughly a third of parents expected to spend more on technology and workplace upgrades (Stephen, 2010).

The study also revealed that questionable teacher competency in ICT was another challenge directly related to online teaching challenges in Lupane District. It appears that most of the teachers teaching in high schools had not undergone online teaching courses and were not very computer literate. This was compounded by the fact that most did not own laptops to carry online teaching. Regarding this issue, one of the teacher respondents indicated that:

> *Most of the teachers who are teaching in Lupane rural areas do not have laptops and those who have them have very minimal skills. Others can operate laptops but the online teaching applications such as Google classroom are unfamiliar to them. Another problem is that schools do not provide teachers with internet bundles for teaching so teachers have no motivation to go the extra mile of buying bundles for the benefit of their classes during lockdown.*

The above sentiments imply that teachers are incompetent in ICT, as they had not been trained to teach online and so the change to the requirement to teach online came without readiness for its implementation. However, those that could teach online were incapacitated because of lack of equipment. It was also noted that teachers were not motivated, as their remuneration is not enough for their survival let alone making it stretch to funding online learning. Poor teacher competencies was another factor that inhibited teachers from integrating ICT into pedagogical practice (Sheard, 2012). In agreement with that Chandan and Prema (2019) insist that many teachers lacked the knowledge and skills to use computers and were unenthusiastic about the changes about moving from face to face learning to online lesson delivery. According to Pelgrum (2001) and Al-Oteawi (2002), in the developing countries, teachers' lack of technological competence is a main barrier to their acceptance and adoption of ICT. This is a serious obstacle to integration of technologies into the system of education.

Conclusion
The study concludes that that there is a gap in rural learners accessing online learning because neither the parents nor the government has taken up purchase of online equipment for rural learners. The study also

revealed that those able to access e-learning are those who stay near Lupane Centre where there is electricity as well as network connectivity. Combined with the disproportionate effect of the crisis on the finances and unemployment of poorer households, the Covid-19 crisis could have disastrous consequences because of inequalities in children's educational access and consequently their attainment (Girard, Vanston &Faïd, 2021).It can be concluded that learners are failing to access technology and a stable and functional internet connection, as well as enabled learning environments, that are necessary conditions for learners to study from home. The shift from face-to-face to distance teaching did not come without challenges, the main ones being access to technical infrastructure, competences and pedagogies for distance learning and the requirements of specific fields that may not guarantee equality compared to face-to-face education (Fokken 2020).

The study established that parents in Lupane are mostly not in support of online learning, as they view the programme as an added expense that they do not afford. They particularly feel that this situation brings with it the extra burden of buying necessary equipment for the implementation of online learning. Lupane parents spend about $100 more than they did last year, prepping their children for learning at home. While $100 may not seem like a lot, it is a massive chunk for most parents who remain unemployed and for those who lost their job at some point during the pandemic (Kane, et al.2020). Lower-income families feel the pinch harder as they need to overcome more obstacles for their child to successfully access learning online as most stay outside the electricity grid areas. Unlike in years past, urban parents are now spending more on supplies to set up a learning environment at home, including furniture and technology, along with the regular school supplies. Roughly a third of urban parents expected to spend more on technology and workplace upgrades (Stephen, 2010).

The study established that teachers were by and large incompetent in ICT and incapacitated to afford personal ICT gadgets, hence they s are not motivated to push for online engagement as their remuneration is not enough for their survival. Lack of teachers' competency is directly related to teachers' confidence and their efficient uptake in integrating ICT into pedagogical practice (Sheard, 2021). According to Raman and Hamidah (2014) in the developing countries, teachers' lack of technological competence is a main barrier to their acceptance and adoption of ICT. This is a serious obstacle to integration of technologies into system of education. Lack of knowledge and skills becomes a serious obstacle to using ICT in primary and secondary schools.

Recommendations
The Zimbabwe an Government should enable all learners whose education was disrupted by the pandemic to return to school and ensure that those who were not able to learn at the same pace as their peers during the pandemic catch-up on what they missed. In addition, the Government through the Ministry of Education should provide the needy learners with the tools, and access needed to keep on learning during the pandemic. Another noteworthy action for the government to take is that the Government through rural electrification programmes should make sure all the schools are electrified and internet is available so that learners can move closer to schools to access their learning materials during lockdowns. The schools should fund raise to equip the teachers so that they have tablets or laptops which they can use for their staff development workshops and for online teaching.

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