Open and Distance Learning Mode: The Way forward for Zambia in Response to COVID-19 Pandemic

Daniel Ndhlovu[1], Joseph M Mandyata[1] and Rose Chikopela[2]

[1] Department of Educational Psychology, Sociology and Special Education, University of Zambia, Lusaka, Zambia
[2] Zambia Institute of Special Education, Lusaka, Zambia

Abstract

This paper advances an argument that open and distance learning (ODL) is the way forward in addressing problems of providing education in Zambia as a result of COVID-19. Provision of education in Zambia has recently been put to a challenge by the COVID-19 resulting in schools, colleges and universities being locked down. Locking down or closing learning institutions in Zambia was one of the measures instituted by the Government of the Republic of Zambia to protect lives of its people. However, little was thought of to be an opportunity for ODL. This paper therefore, argues that unlike face to face mode of learning, use of ODL has great benefits such as increased access to education and training, freeing learners from limiting factors such as time and space. In addition, ODL provides flexible learning opportunities to individuals and groups. For example, learners who also work full time and are unable to attend full time face to face mode of learning to acquire education can learn using e-learning supportive mechanism such as emails, telephone, Whatsup, Face book, twitter and on line platforms. However, it should be acknowledged that internet connectivity in Zambia is poor in most parts of the country. This paper therefore, recommends that investment in internet connectivity in the country should be given priority. In adding, sensitization and realization of stakeholders that open and distance learning mode is the way forward in addressing the challenges of closing learning institutions due to disasters or pandemics like COVID-19.

Key words: **Open learning, Distance education, Open and Distance Learning, e-learning, COVID19**

1. Introduction

The paper has four parts. The first part provides justification of the paper by bringing out the current and commonly used mode of education delivery – the face to face mode. It proceeds by exposing the weaknesses of the face to face mode of education delivery. It further zeros in the weakness of locking down learning institutions as a major 21st Century problems of the face to face mode of education delivery due to COVID-19. The paper gives a contextual explanation of what COVID-19 is and its effects (negative and positive). The positive effect being pushing educationist and policy makers into new ways of providing education such as the open and distance learning (ODL) mode.

Part two of the paper provides ODL as a way foward in response to COVID-19 pandemic. Here definitions of open learning and distance learning are expounded and implications exposed in relation to being the way forward in response to COVID-19. Explanations describing the character of ODL are given. In addition, education providers are also give an array of models to choose from in their quest to provide education through the ODL mode. Part two further argues for the use of ODL by bringing out its advantages. It wraps up this section by exploring how other countries have responded to COVID-19 by using open and distance learning mode.

Part three of the paper exposes possible challenges of using ODL in Zambia. While part four brings out conclusion and how the identified possible challenges can be averted in form of recommendations.

2. Background

Commonly used mode of educational delivery in Zambia prior to COVID-19

The major mode of providing education in Zambia and other sub-saharan African countries has been the traditional mode characterized by face-to-face interactions between teachers and learners, structured courses of study, fixed locations for learning, fixed time schedules, and a certification system. An analysis of the characteristics of the traditional mode of providing education such as face to

face interactions and fixed location for learning have revealed weaknesses. For instance, the Association for the Development of Education in Africa, ADEA (2002) pointed out that none of the Sub-Saharan African countries had fulfilled the promise of providing education for all through the face to face mode of delivery. To date, this argument remains true. In addition, the face to face mode of providing education world over has been put to a test by COVID-19 and failed it, resulting in locking down learning institutions. In China for instance, prior to the COVID-19 outbreak, face to face mode of providing education was more used than distance learning mode in universities (Lin and Gao 2020). With the advent of COVID-19, China was one of the worst hit countries in the world and it closed its learning institutions as a measure to prevent and control the spread of the COVID-19 (Lin and Gao 2020).

Lock down of learning institutions as a weakness of face to face mode of delivery amid COVID-19

The WHO declared COVID-19 a public health emergency of international concern on 30 January, 2020 and a pandemic on 11 March, 2020 (Abdullah, 2020).

In response to this global public health pandemic and as mandated by the Public Health Act Cap 295 of the Laws of Zambia and as guided by two Statutory Instruments, SI 21 and SI 22, both issued on 14th March, 2020, the Government of the Republic of Zambia through the Minister of Health, on 17th March 2020, issued a pre-mature closure notice of all schools, colleges and universities in Zambia with effect from Friday, 20th March 2020 as a measure to protect lives of its people from COVID-19. However, little was thought of that Open and Distance Learning (ODL) can be the way forward in responding to the COVID-19 pandemic during lock down of school, colleges and universities.

COVID-19 – What it is and its effects on education delivery

What it COVID-19 is: The acronym COVID-19 stands for Coronavirus disease discovered in 2019. COVID-19 is a respiratory viral disease transmitted through droplets of an infected person when s/he sneezes or coughs. The European Centre for Disease Prevention and Control (2020), revealed that COVID-19 has a clinical spectrum of mild to moderate disease (80%), severe disease (15%), and critical illness (5%) with an overall case fatality rate of 0.5–2.8% with much higher rates (3.7–14.8%) in octogenarians. World over, proven therapeutics for the treatment of COVID-19 are still lacking.

An understanding of the naming of COVID-19 is imperative to educationist as it illuminates knowledge in the mind of those that theft for knowledge. As a result, the three zoonotic outbreaks (SARS-COV of 2003, MERS-COV of 2012 and SARS-COV2 of 2019), in relation to virus taxonomy and diseases caused by these viruses in figure 1 was adopted from the Coronaviridae Study Group (CSG) of the International Committee on Taxonomy of Viruses [ICTV] of 2020 report:

History of naming COVID-19 during the three zoonotic outbreaks in relation to virus taxonomy and diseases caused by these viruses

The naming authorities for diseases and viruses in the world are the World Health Organization (WHO) and the International Committee on Taxonomy of Viruses (ICTV). The International Committee on Taxonomy of Viruses (ICTV) named it as SARS-COV2 deriving the acronym from the Severe Acute Respiratory Syndrome which took place in 2003 and 2012 while the World Health Organization (WHO) named it as Coronavirus disease and since it was discovered in 2019, the acronym COVID-19 was crafted (CSG, 2020). It is must be acknowledged that SARS-COV2 is an agent of COVID-19 and these acronyms leave out the location of origin to avoid stigma appearing in MERS-COV of 2012.

The Continuum of Risk of COVID-19: Having created an opportunity understanding of the three zoonotic outbreaks (SARS-COV of 2003, MERS-COV of 2012 and SARS-COV2 of 2019 or COVID-19), we revert to our argument for ODL being the way forward in response to COVID-19. As we revert, an understanding of the risk continuum in learning institutions is also imperative as African countries, Zambia included mostly have weak economies, poor health facilities and are likely to be the worst affected by the COVID-19 pandemic. The Continuum of Risk suggested by Center for Disease Control and Prevention [CDC] (2020), is brought in to characterise the spread of risks among students, teachers, and staff across the continuum. This continuum has four risk scenarios (Lowest Risk, Medium Risk, Higher Risk and Highest Risk) that may occur in learning institutions. Thus the Lowest Risk occurs when students and teachers engage in virtual-only classes, activities, and events whereas Medium Risk is noticed in the Hybrid Learning Model. The Medium Risk scenario is associated with most students participating in face to face learning and some of them participating in virtual learning while taking into account the health guidelines against COVID-19. The Higher Risk on the continuum occurs when students minimally mix between classes and activities and barely take into account the health guidelines against COVID-19. The highest Risk on the continuum is associated with students and teachers engaging in face to face only learning, activities and events and students mixing freely between classes and activities without taking into account the health guidelines against COVID-19. Thus an understanding of the risk continuum may help educationist and policy makers in choosing the mode of providing education to its learners. An analysis of the risk continuum shows that in general, the risk of COVID-19

spread in learning institutions increases across the continuum of virtual, hybrid, to face to face learning. The risk is heightened in face to face learning when students, teachers and the community barely or do not adhere to the health guidelines against COVID-19.

Since COVID-19 is mostly spread by respiratory droplets released when people talk, cough, or sneeze (CDC 2020), personal prevention practices (such as handwashing, staying home when sick) and environmental cleaning and disinfection are important health guidelines against COVID-19 to follow. Thus the argument for the Hybrid mode of education delivery in which open and distance learning is practiced. Acknowledging that face to face interactions may be inevitable in some situations, the bottom line for learning institutions is to promote the health guidelines against COVID-19 by encouraging students, families, teachers, school staff, and all community members to take actions to protect themselves and others where they live, work, learn and play.

The effects of COVID-19 on learning institutions

The negative effects of COVID-19 pandemic can be seen by most governments around the world who mostly used face to face mode of education delivery temporarily closing or locking down educational institutions in an attempt to contain the spread of the pandemic. These closures have impacted over 60% of the world's student population (UNESCO, 2020).

More negative effects of the COVID-19 are visible in most countries by not achieving the Sustainable Development Goals (SDGs). For instance, Sayed and Singh (2020) revealed that the Covid-19 pandemic emerged five years after the global commitment to the 17 Sustainable Development Goals (SDGs) agreed by all countries at the United General Assembly in September 2015. These 17 SDGs – including the eradication of extreme poverty (Goal 1), zero hunger (Goal 2), equitable and quality education (Goal 4) and reduced inequality (Goal 10) – seek to create a prosperous, peaceful and sustainable planet earth. In relation to education and this paper, clearly of these goals, the education goal, has been heavily challenged by the Covid-19 pandemic resulting in learning institutions being locked down.

Further, at the time (17th March, 2020) when the statutory instruments; SI 21 and SI 22 were invoked to close schools, colleges and universities in Zambia, COVID-19 was reported to have spread to 162 countries with 181,335 cases and 7,130 deaths globally (Hapompwe et al., (2020).

Thus the face to face or traditional mode of providing education in Zambia just like in other countries in Africa and world over has been put to a test by the COVID-19 resulting in schools, colleges and universities being locked down. The long term effects of locking down schools,

colleges and universities due to the COVID-19 among others may be high illiterate levels in Zambia and world over especially in countries that will not quickly embrace open and distance learning mode. In addition, since COVID-19 is likely to be around for unknown time thereby forcing learning institutions to remain closed, the generation of school going youth are likely to preoccupy themselves with other activities good or bad in place of schooling. Elicit behaviours may also be on the rise as a result of lack of school learning. School learning is necessary and can be provided through the open and distance learning approach. Similarly, Sayed and Singh (2020) explained that school learning is much more than the learning of content. It is equally about socialisation, developing relationships and learning social and civic skills for navigating life in a democratic post-schooling context and must be fortified. With learning institutions locked down due to the COVID-19 pandemic, socialisation, community relationships and learning of social and civic skills may not be fully realised. For example, how can children or indeed adults who are locked down in homes due to fear of the COVID-19 socialise with nobody or learn social skills from nobody? Consistent with this view point is that of Sayed et al. (2018), who posited that schooling is not only about learning subject content knowledge, but also about learning affective skills that develop critical thinking and knowledgeable citizens. There is need therefore, to protect or redeem the threatened school learning by COVID-19 through open and distance learning mode. It is on this basis that this paper argues for open and distance learning (ODL) as a way forward in addressing 21st Century problems of providing education in response to COVID-19 pandemic in Zambia.

3. Open and Distance Learning as a response to COVID-19 Pandemic

In arguing for open and distance learning mode, it is necessary to understand its concepts, characteristics, models and how other countries have responded to the COVID-19 as a way of best practice for the education system in Zambia.

Definitions of ODL and implications to being the way forward amid COVID-19

Open Learning: The terms open learning and distance education represent approaches that focus on opening access to education and training provision, freeing learners from the constraints of time (asynchronous learning) and place (distance learning), and offering a high level of autonomy and flexible learning opportunities to individuals and groups of learners (UNESCO, 2002 in Ndhlovu et al. 2015). There is need to bring out varied views about open learning here as Onyemaechi (2013) argued that there is no universally accepted definition of the term open learning. Consistent with this view we see Lucy (2020), for example, arguing that 'open' simply

means open entry and access to learning opportunities and the removal of barriers to learning opportunities. Others argue that open learning can be substituted for flexible learning. Jeffries et al (1990) looked at open learning as any form of learning in which the provider enables individual learners exercise choice over any one or more of a number of aspects of learning.

An analysis of these definitions agrees with Caliskan (2012) and implies that the term open learning is used to describe learning situations in which learners have the flexibility to choose from a variety of options in relation to the time, place, instructional methods, modes of access, and other factors related to their learning processes. By implication and in response to COVID-19, open learning is an appropriate mode of education delivery in Zambia. There is need to explore and invest in it.

Distance education: In terms of distance education, most definitions of distance education appear to portray the possibility of communication between participants in a learning system across time and space through technologies. Perraton (1993) explains distance education as an educational process in which a significant proportion of the teaching is conducted by someone removed in space and/or time from the learners. On the same token, Holmberg (1990) defines distance education as the various forms of teaching and learning at all levels which are not under the continuous, immediate supervision of tutors present with their learners in lecture rooms. A combination of the two terms has given rise to the currently operating term, open and distance learning.

Open and distance learning is one of the most rapidly growing fields of education, and its potential impact on all education delivery systems has been greatly accentuated through the development of Internet-based information technologies, and in particular the World Wide Web. Similarly, Commonwealth of Learning (2000) in Ndhlovu et al. (2015) has defined open and distance learning as a way of providing learning opportunities that is characterized by the separation of teacher and learner in time (asynchronous learning) and place (distance learning), or both time and place; learning that is certified by an institution or agency; the use of a variety of media, including print and electronic; two way communication that allows learners and tutors to interact; the possibility of occasional face-to-face meetings; and a specialized division of labour in the production and delivery of courses. In Response to COVID-19 pandemic, use of open and distance learning approaches or modes is the way forward in the provision of education if Zambia has to protect its people from the pending high levels of illiteracy in the near future due lock down of learning institutions. On the basis of the analysis of the definition of open and distance learning in Ndhlovu et al. (2015), implications for practicalities of open and distance learning are drawn. With investment, it if practically viable for Zambia to respond positively to COVID-19 by ensuring that learning institutions separate teachers and learners in time, space or

and both time and space. In addition, existence of institutions with a mandate to register learning institutions and accredit their programmes to have authentic qualifications with international recognition. Thus quality assurance is guaranteed in the open and distance mode of delivery of education. Considering that Zambia has its population spread in remotest parts of the country with no internet or poor internet connectivity, face to face sessions may be blended in the delivery of education. This is a characteristics of open and distance learning. This approach of education delivery is what earlier on was referred to as Hybrid and has medium risk on the COVID-19 risk spread continuum provided health guidelines against COVID-19 are adhered to.

The other key strength of open and distance learning drawn from the definition is the use of a variety of media. For instance, e-learning supportive mechanisms such as e-mails, telephone, WhatsApp, face book, twitter and on line platforms can be used. In considering the vastness of Zambia, one or combinations of these e-learning supportive mechanisms are applicable at the District Education Resource Centers. By using District Education Resource Centers, distances to be covered by learners to points of accessing internet connectivity is somehow reduced compared to when they travel to provincial towns. A study by Simui et al. (2018) indicates that use of WhatsApp by students on distance education mode at the University of Zambia was advantageous. For instance, technical advantage included, simple operation, low cost, availability, and immediacy of the service while the educational advantages include creation of a pleasant environment and an in-depth acquaintance with fellow students. In addition, by use of WhatsApp the students were able to access learning materials, their teachers and had continuation of learning beyond class hours unlike in face to face sessions (Simui et al, 2018).

Contrast was also made to see how students in other countries responded to e-learning. Narayan and Naidu (2020) reported that the students of South Pacific Asia were favourably disposed towards the use of tablets in their studies as it helped them engage with their learning activities, mainly in accessing academic resources, communication and collaboration with their lecturers and peers. Similarly, students in universities and colleges in Zambia can afford tablet computers and laptops which they can use for their academic work. If this is taken advantage it can enhance e-learning and avert the restrictions of classroom space which is not desirable during the COVID-19 period. Instead, students can learn from where ever they are located while maintaining the COVID-19 health guidelines.

In China, Lin and Gao (2020) posit that students had a stronger sense towards interacting, discussing, and sharing ideas in asynchronous online courses. In addition, findings highlight the benefits of taking courses in these two distance learning formats. For instance, active

interaction is often stimulated through synchronous distance learning, while students can learn on their own pace in asynchronous online learning environments. This should be the case for students in Zambia but evidence based argument is need. Thus stimulating need for research on this.

Characteristics of ODL in relation to advantages of its mode of education delivery

Consistent with the definition of open and distance learning in Ndhlovu et al. (2015), the Commonwealth of Learning, (2000) described the following characteristics for open and distance learning: Separation of trainer and learner in time or place, institutional accreditation (with the official recognition of a learning institution), use of mixed-media courseware (for instance, use of radio, television, video, audio, computer-based instruction and telecommunications), two-way communication (allow interaction between learners and tutors), possibility of face-to-face meetings for tutorials (in libraries, laboratories, and practice sessions) and use of industrialised processes (in a large scale of open and distance learning, labour is divided and tasks are assigned to various staff who work together in course development teams).

Unlike face to face mode of learning, use of ODL has great benefits such as increased access to education and training, freeing learners from limiting factors such as time and space. In addition, ODL provides flexible learning opportunities to individuals and groups. For example, learners who also work full time and are unable to attend full time face to face mode of learning to acquire education can learn using e-learning supportive mechanism such as emails, telephone, WhatsApp, face book, twitter and on line platforms. However, as earlier alluded to, internet connectivity in Zambia is poor in most parts of the country.

Types of Open and Distance learning and their implications to COVID-19

In arguing for open and distance learning, a variety of types of open and distance learning must be understood in order to limit room for excuse for not providing education or school learning to learners. Among the types of open and distance learning are correspondence education, home study and independent study, continuing education, self-education, adult learning, technology-based education, learner centered approach to education, open learning, flexible learning, e-learning, computer-based training (CBT) and distributed learning (Ndhlovu et al., 2015). Any of these or its combination may suffice to providing open and distance education in Zambia's schools, colleges and universities.

Models of ODL in relation to advantages of its mode of education delivery

In ensuring that the type of open and distance learning to be chosen is appropriate, an understanding of models of distance education is necessary. Several models of distance education have been proposed for adaptation by various learning institutions. We mention a few that were suggested by Otto (2010):

The Examination Preparation model: This model was institutionalized when the University of London was founded in the mid-19th century for the benefit of those persons who could not afford to be enrolled at Oxford or Cambridge University. This model is associated with those universities that limit their mandate to conducting examinations and conferring degrees only. They do not participate in teaching or preparing students for examinations. The students or learners have to teach themselves or learn from other recognized learning institutions. This is not common in Zambia but is option universities can explore.

The Correspondence Education Model: This is the oldest and most widely used model. It is a combination of the examination preparation model and regular teaching by presenting written or print texts, and by assignments. Their regular correspondence between the teaching institution and the students. The model is simple and relatively cost-effective to administer. It is used to a great extent by distance teaching universities that are multi-media and open. The University of South Africa is a good example of the universities that use this model. Once back, Zambia used this model.

The Multiple (mass) Media Model: This model emerged in the 1970s. It is characterized by a regular and integrated use of radio and television, together with print materials and the systematic support of the students by means of study centers. This model supported the movement toward open learning and open universities.

The Group Distance Education Model: This model is similar to that of the multi-media model, as radio and television are used as teaching media and in transporting lectures held by tutors. But these lectures are received by groups of students (not individual students) attending obligatory classes where they follow the explanations of a tutor, discuss what they have heard and watched, do their assignments and take their tests. No special printed teaching material is developed and distributed, except for lecture notes. This model is prominent in China, Japan, and Korea.

The Autonomous Learner Model: This model provides for freedom to develop independent learning. In the model, the students organise their learning themselves and tackle

draw their own curricula. They set their own learning objectives and decide on strategies and media they want to apply. Here, the tradition of expository teaching does not apply. Instead, tutors function as advisers and facilitators who meet the students regularly using the media chosen by the students. In these meetings, the students present, discuss and negotiate their objectives and plans.

The Network-Based Model: This model is presently emerging as part of the digital transformation of education provision. It provides the possibility of working in a digitalized learning environment. Here, the students have access to teaching programmes and data bases carrying relevant information. The use of phones and other e-gadgets is a common feature in this model.

In order to promote access to education amid COVID-19 these models must be accepted as options in the delivery of education by educationists, policy makers and quality assurance mandated institutions because open and distance learning approaches are varied. What must be considered critical is their relevance and appropriateness to the learning needs of learners.

How other countries have responded to COVID-19 by use of ODL mode of education delivery

Unlike many countries the United States of America had already embraced the use of open and distance mode of education delivery. Online learning was an in thing while negative attitude by students and lecturers or teachers in Zambia for example was predominant. For China, in as much as all universities had shut campuses in response to COVID-19, the country immediately moved to online teaching and learning since February 2020 (Lin & Gao, 2020). This action by China provides the best practice in the provision of education in response to COVID-19 pandemic and must be emulated by many countries including Zambia.

Countries that needs support may contact UNESCO. UNESCO is supporting countries in their efforts to mitigate the immediate impact of school closures, particularly for more vulnerable and disadvantaged communities, and to facilitate the continuity of education for all through remote learning (UNESCO, 2020).

In India, Bordoloi (2018) points out that open and distance learning provided the opportunity of accessing education to a large section of people in the society irrespective of sex and age, and that it made the people of India capable with basic and essential skills which are necessary for maintaining a decent standard of living. Similar results may happen in Zambia where access to education is limited by systems that favour classroom based learning. Thus the argument for open and distance learning is strengthened by need for education in Zambia as a response to COVID-19.

4. Possible challenges in using ODL in Zambia

In Zambia, when initiatives were introduced for students to learn using on line learning and have virtual graduation ceremonies (elements of ODL), protest messages by post graduate students appeared in the media. In addition, even some teaching staff resisted the on line learning mode of providing education to learners using ODL mode. Some of the officials entrusted with quality assurance in education also often confused themselves by using standards for face to face when checking for quality in open and distance learning mode of delivery. Resistance to ODL, e-learning in particular and using wrong assessment instruments for quality assurance need to be addressed. Further, postgraduate students are the brains of nations, official entrusted with responsibility to provide quality assurance in education are the machinery of development of a country. But if the brains and machinery of development resist and demonstrate ignorance of current trends in the provision of education, then there is dire need to address the problem.

5. Conclusion and Recommendations

Conclusion

In conclusion, unlike face to face mode of learning, use of ODL has great benefits such as increased access to education and training, freeing learners from limiting factors such as time and space. In addition, ODL provides flexible learning opportunities to individuals and groups. For example, learners who also work full time and are unable to attend full time face to face mode of learning to acquire education can learn using e-learning supportive mechanism such as emails, telephone, WhatsApp, face book, twitter and on line platforms.

Recommendations

This paper therefore, recommends that investment in internet connectivity in the country should be given priority. In adding, sensitization and realisation of stakeholders that open and distance learning mode is the way forward in addressing the challenges of closing learning institutions due to disasters or pandemics like COVID19.

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