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Exploring the effectiveness of radio lessons among rural primary school learners in Zimbabwe: during COVID-19 era

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Abstract: The advent of Covid-19 negatively affected rural primary school learners in Zimbabwe and beyond. Consequently, face to face teaching and learning were affected due to need to maintain social distance to avoid the spread of Covid-19 virus among learners and teachers. The Ministry of Primary and Secondary Schools in Zimbabwe in partnership with UNICEF launched primary school radio lessons from 16th June 2020 as an alternative method of promoting effective and quality teaching and learning. A closer analysis of the focus of many studies conducted on teaching and learning methods in Zimbabwean rural primary schools show the existence of gap in relation to radio lessons. Current studies have focused on use of online platforms such as WhatsApp, computers among others. Hence there is need to engage in this study. This is a qualitative article with a bias towards an exploratory study. Purposive sampling technique was used in this study. A sample of twenty-two participants, focus group discussions and observations were used as data generation technique. The generated data was thematically analyzed. The article found that, radio lessons are ineffective teaching and learning method because there are no constant radio frequencies and majority of learners do not have radios in Zimbabwe rural areas. To this end, the participants recommend that Government and other stakeholders should urgently put radio infrastructure in rural areas and freely provide small radios to all rural learners in Zimbabwe.

Key words: 1. Radio lessons 2. Learners 3. Rural areas 4. Covid-19 5. Teaching method 6. Zimbabwe

Introduction and contextualization of the problem

This exploratory article is currently written when COVID- 19 B 1.617 coronavirus variant which is currently killing and affecting many people in India has been dictated in Kwekwe on the 20th May 2021, Zimbabwe (Zimbabwe Ministry of Health and Child Care, 2021; Pindula News, 2021). As a result, the Zimbabwe Government declared that, Kwekwe district should be under strict lockdown (Herald, 2021; Zimbabwe Ministry of Health and Child Care, 2020). Consequently, learners and teachers have been affected in Kwekwe and if the deadly COVID- 19 B 1.617 coronavirus variant that was dictated in India on 29th April 2021, spread to all areas in Zimbabwe, schools will be total shut down. To this end, the effectiveness of radio school lessons should be explored to unearth the challenges affecting them and offer solutions to advance the use of radio lesson in providing quality teaching and learning in teaching and learning. Despite the existence of plethora of studies on radio lessons (Bosch, 1997; Chandar & Sharma, 2003; Cobe, 1995; Goldstein & de De Jesus, 1995), the effectiveness of radio lessons in Zimbabwe rural primary schools during Covid-19 period has been generally understudied and under theorized in the marginalized rural areas.

This article addressed two critical questions to adequately unpack the topic understudy: “What are the challenges faced by learners in accessing quality radio lessons in Zimbabwe rural primary schools and What can be done to mitigate the challenges that militate against radio lessons in Zimbabwe rural primary schools? I argue that, this article does not only show problems but provide solutions through collective engagement of critical stakeholders concerned with improvement of Zimbabwe rural education such as political leaders, indigenous leaders such as chiefs, Government leaders, private sector, Non-Governmental Organizations, Ministry of Education Officials, teachers, parents and learners. It is my view, the current study, comes on the backdrop lack of Covid-19 treatment and new wave of Covid-19 that has hit Zimbabwe from India; another Covid-19 induced lockdown may come in full force. Against the above background, I argued that, there is need to

investigate the effectiveness of radio lessons if they are handy in promote quality education among Zimbabwe rural primary school learners.

Theoretical Framing: Bronfenbrenner's ecology theory

Bronfenbrenner (2008: xxv) explained that 'human beings create the environments that shape the course of human development and perceptions. Their actions influence the multiple physical and cultural tiers of the ecology that shape them, and this agency makes humans – for better or for worse – active producers of their own development'. Bronfenbrenner's ecology theory has five systems namely: - microsystem, mesosystem, exosystem, macrosystem and chronosystem that explain human perceptions and development (Chinyoka & Naidu, 2014). This article utilised four out of five of Bronfenbrenner's systems. First, microsystem, which consists of the learners' immediate environment, then, mesosystem which deals with the culture of the participants' family and the school, additionally, exosystem which affects larger social contexts of the government, the education system, the economic systems, and the religious system finally, the macrosystem was engaged which involved customs, values, ideology and the legal system. These four are relevant to this study as they influence and shape how lecturers develop their perceptions on radio lessons. This theory was appropriate as it explains in detail the effects of interaction and dependence of many systems that contribute to the effectiveness of radio lessons in Zimbabwe rural schools (Best, 1992; Hijazi & Naqqash, 1995; Hussain, 1997). I am of the view that, the solution to challenges facing radio lessons are derived from larger social contexts of the government, the education system, the economic systems, and the religious system finally, the macrosystem was engaged which involved customs, values, ideology and the legal system.

Literature review

Elliot and Lashley (2017) found that, most mathematic teachers have negative attitudes towards radio lessons because of lack of resources and inadequate training in using this teaching and learning tool. Furthermore, on the other hand, Elliot and Lashley (2017) noted that, mathematics learners were excited to use radio as a method of learning and this excitement increased their motivation to learn and subsequently increase their academic

performance. Technology based teaching and learning tools such as radio are becoming popular and are being utilized in developed and developing countries to bring quality education and allow students manage their learning processes (Jumani, 2009).). To enhance the importance of radio lessons through access of radio, in Sri Lanka, everyone owns a radio and only one person among 500 people has access to internet (Emadi, 2003). Access of radio equipment enables the effectiveness of teaching and learning using radio lessons, for example in 57% of the Bolivian population has radios (Girard, 1999). I concur with the observation of Moulton (1994), that using radio is cheaper as compared to other technologies such as internet and radio has capacity to reach many people with same information at once unlike WhatsApp that is limited to few people. USAID (2007) acknowledge that, in Malawi, the Government and other stakeholders have effectively used radio lessons to teaching and learning literacy and basic education among adults and young learners. Furthermore, in Britain, Tripp and Roby (1996) commented that, radio has been found to be a critical tool in assisting slow learners to enhance their learning capacity thereby increases their chances to excel in their studies. The provision and availability of radios enhances effectiveness of radio lessons, for example, in Zimbabwe, UNICEF has provided 3000 solar power radios to disadvantage schools in Zimbabwe (UNICEF, 2021), whoever, these radios are inadequate. The above evidence cited in this paper reflected that, there are important components and resources to enhance radio lessons in teaching and learning in schools. However, there is dearth of literature concerning the issues that contribute to the effectiveness radio lessons in enhancing teaching and learning in Zimbabwe rural primary schools. Therefore, this paper plays a pivotal role in contributing to the discourse of the topic under discussion.

Despite the success stories of using radio as teaching and learning tool cited in Buren (2000), educational radio lessons face many challenges including poor network (Ekoja, 2003). Areas with poor network fail to get radio signal thereby affecting radio lessons. In addition to challenges faced in the implementation of radio lesson Couch (1997) found that, lack of support from school administration discourage teachers and learners to utilize radio as a teaching and learning tool. Consequently, teaching and learning processes are negatively affected and subsequently learners fail to accomplish their educational goals.

School administration may sabotage use of radio lessons at school through not providing teacher development trainings to enhance their capacity to teach using radio and the school administration may refuse to buy radio to be used by learners. In Iran, the lack of radio infrastructures at some schools and homes also negative affect the accessibility of radio frequencies, there are school and houses that do not receive radio signal due to their location (Nazari & Hasbullah 2013). More so, literature show that parents of learners' inability of buy radios is one critical challenge faced by radio lessons, some parents are financially incapacitated to buy radio to be used in their homes by learners and other relatives (Herald, 2020; UNICEF, 2021). Other scholars, argued that one of the disadvantages of radio lessons is its lack of interactive component between the teacher and the learners, most radio lessons are one way (from the teacher to the learner) (Elliot & Lshely, 2017).

Lack of interaction between the learner and the teacher contributes to the lack of feedback. There is vast of literature that show that feedback is critical component in teaching and learning, as feedback show how learners have mastered the concepts and lesson areas that need to be reinforced and learners are motivated by feedback they get from teachers (Chingombe, 2019; Mwamwenda, 2014; Snowman, 2005). The negative attitudes of teachers and learners towards radio lessons have be observed as critical component of ineffectiveness of radio lessons in many countries (Erwin, 2001). Negative attitudes make the recipients (teachers and learners) of radio lessons not to actively participate in the learning process, thereby shunning them. It has been noted that, lack of textbooks to support radio lessons in Zambia, show that learners using radio lessons performed below the expected standard (Zambia Examination Council, 2004). The challenges affecting radio lessons differ from one country to the other, and institution to the other, to this end, the challenges facing radio lessons in rural primary schools during COVID-19 era is still uncharted waters in Zimbabwe.

Methodology

Research design

According to Creswell and Poth (2018) research methodology reflect how the study is structured in an organized manner with the thrust of generating data as the responses to the critical questions posed by the researcher. I used exploratory survey design that utilized qualitative research methodology. Exploratory survey design helped in this study as it permitted the participants in this article to explore and interpret their lived experiences in relation to radio lessons in rural schools (Smith, 2007). The participants in this article gave their perspectives through actively participating in focus group discussions and the researcher observed learners engaging in radio lessons.

Population and sample

Cohen et al, (2018) define population as total number of people that qualify to participate in the study. In this article, all as political leaders, indigenous leaders such as chiefs, Government leaders, private sector, Non-Governmental Organizations, Ministry of Education Officials, teachers, parents and learners from were legible to participate in this study. However, as noted by Creswell (2010), it is impossible to use the entire population in the study; therefore I chose the sample of 22 participants to participate in this study. To effectively select the knowledge rich participants, I used purposive sampling technique. These participants were selected based on the following predetermined criterion namely: knowledge of the topic under study, gender and community status: political (One Member of Parliament) and local leadership (one Chief), involved in education (eight grade 7 learners; two teachers; two school heads, two Ministry of Education Officials); two Private sector leaders; two Non-Governmental Organizations and two parents.

Instrumentation

In this article observations and focus group discussions were used to generate data.

Observations

I observed 8 radio lessons: that is I observed learners engaging in early childhood classes (grade 0) and grades 1 to 7. I observed the learners from a distance in their natural setting;

this allowed participants to learn without modifying their behavior knowing that I was watching them. The observation guide was utilized to see how learners engage in radio lessons. In addition, observations were noted during the weekend as most of the learners will be at home listening to radio lessons. The learners were from different primary schools within rural areas.

Focus group discussions

In line with Covid-19 regulations, participants were in two small groups (8 learners and 12 adults), observed social distance and wore face masks among other COVID-19 regulations. The participants were divided into two focus groups: one for learners and another one for adults. I divided the participants into two groups as suggested by Chidarikire (2017) who argued that, learners may be afraid to freely articulate issues that affect them in the presence of their parents. This is especially true in the rural areas where majority of learners are culturally informed that they should not question adults. Ground rules were agreed upon by the participants as to keep track of the discussion and the focus group discussions were held on Saturday for two hours. Both parents and learners responded to two critical questions: "What are the challenges faced by learners in accessing radio quality lessons in Zimbabwe rural primary schools and What can be done to mitigate the challenges that militate against radio lessons in Zimbabwe rural primary schools?"

The participants' views from both focus groups and observations were recorded by the research secretary and the data were put into coded put into themes through using the stages proposed by Braun and Clarke (2006): familiarization with data, data coding, searching for themes; review themes; defining and naming the themes data analysis and write up.

Trustworthiness of data

Trustworthiness of data was enhanced by a pilot study, which eliminated ambiguities in the data generation instrument. Additionally, the researcher used member checking of the data from the participants on the focus group during discussions as a way to strengthen the trustworthiness of data.

Data Analysis

The data was analyzed using thematic analysis, data that was put in themes were examined and interpreted. Responses of focus group discussions and observations were grouped and recorded as suggested by Creswell and Poth (2018). The literature and theoretical framework tenets were factored in the data analysis. Two themes were derived from the data namely: “Challenges faced by learners in accessing quality education in Zimbabwe rural primary schools and Ways to mitigate the challenges that militate against radio lessons in Zimbabwe rural primary schools”.

Ethical considerations

I was given gatekeepers permission and ethical clearance to conduct the study by the Ministry of Primary and Secondary Education in Zimbabwe. First, I explained the purpose of the study to the participants and they asked the questions to get clarity. After understanding that this study was purely an academic in addition that they their views, names and identities will be treated with confidentiality using pseudo names (Tarisayi, Muchopa & Chidarikire, 2019). Second, participants then agreed to sign: the learners signed assent and consent forms and adults signed informed consent forms to allow children to participate in this study and they also signed informed consent forms to participate (Cohen, et al, 2018). Lastly, I informed the participants that they are allowed to withdrew from the study at any point without any questions being asked.

Discussion and findings

In this section the participants’ views were categorized into two themes namely: The challenges faced by learners in accessing radio quality lessons in Zimbabwe rural primary schools and Solutions can be done to mitigate the challenges that militate against radio lessons in Zimbabwe rural primary schools. From the above two themes, the participants shared their views. Firstly, I dealt with theme 1 in the next phase:

Theme 1: Challenges faced by learners in accessing quality radio lessons in Zimbabwe rural primary schools

Challenge of lack of money to buy radio

On challenge of financial difficulties to purchase radio, Participant learner Amos explained that,

“At home we do not have radio. I stay with my grandmother; she is unemployed and have no other source of income. She get food from the donors and the same donors pay my educational fees”. (PT1, male grade 7 learner)

In addition, one challenges of owning a radio Mrs Moyo a parent stated that,

“Radio is expensive in Zimbabwe. Most sellers they sell radio in foreign current and I have no access to foreign current. Those who are selling radio in Zimbabwean dollars are charging exorbitant prices. I cannot afford to buy one radio for my three children to share when listening to radio lessons”. (PT2, female parent)

The researcher observed that,

“I noticed that some learners from four nearby homesteads congregate at one house where they listened to one radio and on further consultations, I was informed that some parents did not buy radio for their children to listen to the radio lessons”.

In this article, the participants argued that the noble purpose to provide quality education in Zimbabwe rural primary school through radio lessons has been negatively affected by lack of radio sets among rural learners. Very few rural learners own radio set because radio sets are expensive to buy in Zimbabwe. Most parents in rural areas are finding it hard to purchase radio sets because they are not working and have no other sources of income. Currently, in Zimbabwe the prices of goods such as radio sets and services are very high (Newsday, 2021). The lack of money to buy radio sets by parents negatively affects teaching and learning in rural areas during this Covid 19-period as envisioned through Bronfenbrenners’ ecological theory first level- microsystem (Chingombe, 2019; Chinyoka and Naidu, 2014). To avoid the effects of inflation that is over 200% currently in Zimbabwe, the business people in Zimbabwe are charging prices of goods such as radio sets in foreign

currency such as United States Dollars, however, most companies where parents are working pay them in Zimbabwe dollars. Parents fail to buy foreign currents from the official market because it is not easily available and at the official market foreign currency is very expensive to purchase (Sunday Mail, 2021). The economic influence and negative impact of the welfare of learners' academic performance is explained through the lens of exosystem level of Bronnefenbrenners theory (Kufakunesu, 2014).

Challenge of radio signals

On challenge of radio signals, the local traditional chief Mr Maranda mentioned that,

“My son’s house is located in any area where there is no radio signal. He recently bought the radio for his two children to learn but they are failing to access radio lessons because of no radio signal. This affects my grand children’s access to quality education”. (PT3, male local chief)

Furthermore, the school teacher Mr Danford said,

“Most of my learners from village Makombe (pseudo name) have no access to radio due to no radio network from that area. Resultantly, almost all my learners from that area miss radio lessons and this is counter-productive to teaching and learning in rural areas”. (PT4, male school teacher)

The researcher observed,

“Two learners listening to radio lesson but the radio lessons were not clear because of poor network. One could hear the radio having shhhhhhhhhhhhhhh sounds and then later pick up the network and one could hear lessons properly”.

The participants in this exploratory article are of the view that, radio lessons in Zimbabwe rural areas have not been very effective due to the lack of radio signals. Some parents in rural areas managed to sacrifice a lot of money to buy radio sets with the intention to use them for their learners' educational purposes. However, the absence of radio signals has militated against effectiveness of radio lessons in Zimbabwe rural areas and thereby contributed to the low pass rate among primary school learners. Radio signals in some rural are poorly accessed and learners have difficulties in hearing what is being taught. In 2020

final year examinations, the pass rate in primary and secondary schools both in rural and urban areas in Zimbabwe drop significantly, due to the fact that learners did not have enough time to engage in teaching and learning (Zimbabwe Ministry of Primary and Secondary Education, 2021). This high failure rate is attributed to many factors including lack of radio lessons. The radio signals installation in all areas in Zimbabwe is the responsibility of the Government of Zimbabwe under Ministry of Communication and Technology, exosystem level holds that, Government incapacity to provide resources affects teaching and learning (Bronnefenbrenner, 2008).

Challenge of lessons not being interactive

On problem of lessons not being interactive, the learner Tandi, argued that,

“I had many question in previous English language radio lesson, but I could not ask the presenter. The responses to two these questions enhance my ability to grasp concepts and utilize them in final examinations and in my day to day life”. (PT5, female learner)

On lack of interaction between the radio lesson presenter and learners, Mr Luckson noted that,

“My son who is doing grade 7 always asks me and her mother questions after listening to radio lessons. He asked us questions because he cannot ask the teacher delivering lesson on the radio. Unfortunately, (me and my wife) we are not educated and most of the content taught is very difficult to us. We always refer him to his teacher for assistance.” (PT 6, male Ministry of Education official)

The researcher observed that,

“Most learners were asking each other questions basing on what the teacher on the radio have said. This is a form of interruption as learners ask each other questions, the lesson presenter will be proceeding and therefore learners miss the other parts of the lessons whilst trying to respond and get answers from their peers”.

The challenge of radio lessons being not interactive was observed as contributing factor to the ineffectiveness of radio lessons in Zimbabwe rural areas. The lack of interaction between the teacher and the learners has been observed in many countries as one of the

aspects that affect effective teaching and learning (Kenya, Ministry of Education). Radio has been identified as one teaching tools that have higher chances of lacking interactive aspect and this makes learners to fail, as postulated in mesosystem ecological theory level (Ganga, 2014).

Challenge of radio not inclusive to learners with hearing impairments

On challenge of radio not being interactive, Member of Parliament, Mr Makanaka explained that,

“I have a daughter who has hearing impairments, she is doing grade 2. I wanted her to learn through radio lessons during Covid-19 lockdown. She was excluded from teaching and learning using radio lessons because she is unable to hear,” (PT7, male political leader)

The issue of radio lessons sidelining learners with hearing impairment was also highlighted by Mrs Maviya,

“I agree with honorable member of Parliament that, radio lessons do not accommodate lessons with hearing problems. It is a very difficult situation that negatively affects learners with this kind of disability and at the end of the day they are left behind.” (PT8, private sector female leader)

The researcher observed one learner with hearing impairment,

“Putting his ears close to the radio to try and get what the teacher was teaching on the radio. His peers who were listening to the same radio lesson were sitting approximately 60 centimeters from the radio and they could hear properly the lesson.”

From the above sentiments of the participants in this article, radio lessons are exclusionary tool against teaching and learning of rural primary school learners with hearing impairments. Dakwa (2014) argued that, learners with hearing impairments are not benefiting from other technological teaching and learning platforms such as radio based lessons. Some learners with mild hearing impairments struggle to hear radio lessons due to poor radio signals and this negatively affects academic performance of learners. In utilizing exosystem level, it shows the Government and Ministry of Primary and Secondary Education have not considered learners with hearing impairments in their radio lessons

programs (Chingombe, 2014). Resultantly, learners with hearing impairments failed in the final grade 7, 'O' and 'A' final examinations (Zimbabwe Ministry of Primary and Secondary Education, 2021).

Challenge of lack of textbooks to support radio lessons

On Challenge of lack of textbooks to support radio lessons, Non Governmental Organization leader Mr Katiyo said,

“Some radio lesson presenters ask learners to open a page on the textbook where the lesson will be derived from. However, some rural learners have no textbooks at home. They depend on school textbooks and most school do not allow their learners to take school textbooks because they are few textbooks and some learner tear and loss these books.” (PT9, male NGO, leader)

On the other hand, Ms Mago private sector leader commented that,

“Textbooks are essential to teaching and learning, learners usually refer to the textbooks to reinforce what they have learnt unfortunately in Zimbabwe rural areas learners cannot refer to the content in textbooks because they are not books”. (PT10, female private sector leader)

The researcher observed that,

“At one rural homestead I saw 5 learners sharing English textbook, they were sharing because they did not have adequate textbooks.”

Radio lessons work effectively in collaboration with textbooks in advancing effective teaching and learning in Zimbabwe rural learning contexts. However, it has been noted by literature that, most rural schools in Zimbabwe have shortage of textbooks (Chidarikire, Hlalele & Tarisayi, 2021). Inadequate textbooks in rural areas show the exclusion of rural learners as many urban schools have adequate books in Zimbabwe (Chireshe, 2013). Most Non-Governmental Organizations, Government and other stakeholders are failing to provide enough textbooks to disadvantaged rural primary schools (Chidarikire & Hlalele, 2021). This segregation of rural schools in favor of urban areas is viewed through macrosystem level as lack of implementation of Zimbabwe legal systems that enforces

Government and all stakeholders to adequately provide teaching and learning materials in rural schools as basic human rights (Zimbabwe Constitution, 2013).

Challenge of the kind of Language and pronunciations used by the teachers on radio are difficult

School head Mrs Tonhodzai opinioned that,

“Some radio lessons content are taught in difficult language that, some learners without good command of English struggle to hear and understand. This is negatively affected by how some radio lesson presenters pronounce some words. This makes teaching and learning through radio a painful adventure.” (PT11, female school head)

More so, learner Providence said,

“I have stopped listening to all radio lessons because the teachers presenting lessons on the radio speak complicated English language and fail to grasp the concepts.” (PT12, a female learner)

Researcher also observed that,

“Some learners in rural areas struggle to construct and speak a well constructed English lesson and in addition, they struggle to explain what they have heard from the teacher on the radio. This confirms that some learners have difficulties in understanding lesson taught in English language”.

In Zimbabwe rural primary schools, English language usage and pronunciation was observed by participants as one challenged factor affecting the teaching and learning of radio lessons in Zimbabwe. This view is supported by Damba (2014) who argued that, most learners in schools are failing in their academic studies because of the lack of understanding of English language which is foreign to them. In Zimbabwe, most subjects are examined in English language and this has contributed to poor performance of most learners both in urban and rural schools (Chidarikire, Muza & Beans, 2021). The macrosystem level lens holds that language of the learners is infused in the culture and it contributes to the success or failure of learners in teaching and learning (Mangwa, 2019).

Challenge of no pictures and diagrams used during radio lessons

On Challenge of no pictures and diagrams used during radio lessons, learner Prince said,

“Some mathematical concepts need diagram illustrations to clearly explain them. This is difficulty on the radio. The teacher cannot draw diagrams on the radio.” (PT13, male learner)

In addition, school head Mr Shelton argued that,

“Some learners learn effectively through seeing diagrams and illustrations as they enhance remembering of concepts by learners. However, radio lessons cannot use effectively pictures, diagrams and illustrations in teaching and learning processes.” (PT14, male school head)

The researcher observed that,

“Early Childhood learners learn effectively using pictures, objects and illustrations; however, they cannot get these teaching aids during radio lessons.”

The presenters of radio lessons do not use illustrations of diagrams and pictures during teaching and learning. Participants in this article were of the view that, this has negatively affected the effectiveness of teaching and learning in Zimbabwe rural primary schools. Most learners at primary schools learn effectively when they see pictures, objects and diagrams as supporting to the oral presentation (Mudavanhu, 2018). Therefore, the absence of teaching and learning diagrams, charts and illustrations make learners to easily forget what they have learnt. Mwamwenda (2014) opined that, effective teachers and interesting lessons are well supported by teaching aids such as objects, pictures and illustrations that are appropriate to the topic under discussion.

Challenge of no electricity, load shedding is persistent and some do not have money to buy radio batteries

Learner Panashe alluded that,

“I stay at the growth point where there are electricity connections and my parents bought a radio that uses electricity only. However, in most cases there is load shedding and electricity cables breakdown as a result we spend many days without electricity and we cannot hear radio lessons.” (PT 15, female learner)

In support of shortage of electricity, Non-Governmental Organization leader Mr Nasho said,

“Electricity in Zimbabwe is very expensive and those in rural areas who are privileged to have electricity in their houses experience difficulties in purchasing electricity because of exorbitant prices. This makes learners to fail to listen to radio lessons.” (PT16, male NGO leader)

The researcher observed that,

“Some parents in rural areas have radios that use batteries to power them. However, some of the parents experience financial difficulties to consistently buy radio batteries as a result learners fail to hear radio lessons.”

Zimbabwe as a country is experiencing electricity shortages because of many reasons that include lack of foreign currency to purchase electricity from Mozambique and South Africa (Newsday, 2020). As a result the participants held that teaching and learning using radios and other technological gadgets in rural and urban areas are negatively affected. There are high levels of load shedding of electricity in Zimbabwe; sometimes there is no electricity for the whole day or many days. Most rural areas in Zimbabwe still have no electricity connections since 1980 when Zimbabwe got her independence. However, those rural areas where there are electricity connections, electricity is very expensive and most families cannot afford to buy electricity for the whole month. Consequently, most learners in rural areas miss radio lessons; this according to exosystem is the failure of the Government to provide economic stability that makes it possible for people to buy electricity at cheap prices (Kufakunesu, 2014).

This article does not only offer problems being encountered by rural learners in accessing radio lessons to enhance their teaching and learning. The next section offers solutions that are practical and can be implemented if there is political and all stakeholders' will.

In the next section I dealt with the second theme that focused on solutions to solve the radio based lesson problems.

Theme 2: Ways to mitigate the challenges that militate against radio lessons in Zimbabwe rural primary schools

Following are some of the solutions offered by the participants to mitigate the challenges facing radio lessons in Zimbabwe rural areas:

Solution to lack of money to purchase radios

Learner Derrick is of the view that,

“The school authorities may buy 10 radios in each class this means at least 4 children will share a radio set. This will be another way for school administration to support radio lessons.” (PT17, male learner”

In addition, Member of Parliament Mr Gombiro gave 100 small radios,

“I am donating 100 small radios to be used by primary school learners within this constituency. The radios will be in the community hall and there will be community leaders who will safe guard these radios. These radios are for educational purposes only”. PT5, male member of Parliament)

The researcher observed that,

“There is one Non-Governmental Organization that is giving free radio to community members in rural areas. This helps the rural people to get accurate and timely information on Covid-19 and political, economic, health, education, religious among other issues”.

More so, Ms Mago a private sector leader said,

“As our one of social responsibilities to support education of rural learners in acquiring quality education, we give 200 radios to 2 rural primary schools and 200 to 2 rural secondary schools in this constituency”. (PT10, male private sector leader)

The participants’ narrations above provided some of the solutions that can be implemented to mitigate the challenges faced by learners in accessing radio lessons in Zimbabwe rural areas. On the lack of money to purchase radio sets, the participants proposed that the School Development Committees should mobilize financial resources and buy radio sets for their learners. This is one of the School Developing Committees’ mandates to buy school equipment such as laptops and radio sets for learning purposes (Zimbabwe Ministry of Primary and Secondary Education, 2020). In addition, the Non-Governmental Organizations and private sector companies have social responsibilities to support the marginalized and underprivileged community members such as rural primary schools in purchasing radios. For example UNICEF gave 3000 radios to disadvantaged rural schools in support of radio lesson programs (Chronicle, 2020; UNICEF, 2020). The role of Non-Governmental Organizations and private sector in the improvement of quality education through provision of educational materials such as radios resonate with exosystem level that holds that, the external organizations have a great role to play in the development of learners (Chinyoka and Naidu, 2014).

Radio signals solution

On signal solutions, the chief Mr Maranda urged that,

“The Government of Zimbabwe should urgent prioritize putting radio infrastructure in marginalized rural areas. The Government of Zimbabwe through Ministry of Information and Technology has a mandate to provide radio signals to the entire nation regardless of the geographical location of the area. This increases the accessibility of radio lessons among rural learners in Zimbabwe”. (PT3, Chief Maranda, a male chief)

On the other hand, Mrs Mavinga,

“As a private sector involved in communication we are more than ready to partner Government of Zimbabwe in providing infrastructure. We are going to engage our

Government to see how we can partner in provision of critical radio frequencies in rural areas with the aim of enhancing the accessibility of information including educational programs” (PT8, female private sector leader)

In addition, Mr Gombiro the Member of Parliament, informed us,

“That I am going to move the motion in Parliament that the Government should urgently put radio infrastructure in rural areas so as to promote teaching and learning and accessibility of information. Accessibility of information is one of the important human rights enshrined in Zimbabwe constitution.” (PT5, A member of Parliament)

The challenge of the radio signals is eradicated through the Government’s intervention through urgently providing radio signals infrastructure as the Zimbabwean Government has the monopoly to own and put radio signals. If the Government of Zimbabwe has financial problems due to economic situation and other priorities, the private sector is ready to assist in the establishment of radio signals in the rural communities. In many countries, Government and Private Companies partnerships have worked positively in transforming the marginalized communities (Hlalele, 2018). Furthermore, the political leaders such as Member of Parliament representing the marginalized rural communities should move motions such as provision of radio stations and radio signals in Parliament as stipulated in Constitution (2013). The political will and private sector partnership are powerful tools to push for legal frameworks, financial, material support and implementation of radio signals in rural communities as stipulated by mesosystem level (Kufakunesu, 2014).

Solution of radio lessons not being interactive

Mrs Tonhodzai a school head is of the view that,

“The radio lesson presenters may give learners time to ask questions through phoning or sending WhatsApp messages. This will help learners to get clarity on issues that they have challenges with.” (PT11, a female school head)

In addition, Mr Luckson a Ministry of Education official commented that,

“Our school teachers should help our learners who come with questions they have after listening to the radio lessons. This helps to mitigate the problem of lack of interaction between the learners and radio lesson teachers”. (PT6, male Ministry of Education official)

The researcher observed that,

“Learners were writing down questions in their written exercise books in order to ask their parents, peers and teachers after listening to the lesson”

Solution of not being inclusive to learners with hearing impairments

On solutions of not being inclusive to learners with hearing impairments, Mr Takawira a male parent suggested that,

“The schools, Government and Non-Governmental Organizations should partner and provide adequate written textbooks and other reading materials to learners with hearing impairments. This helps learners in rural areas with hearing impairments to receive quality education.” (PT18, a male parent)

Learner Kuda contributed that,

“The radio presenters or the Ministry of Primary and Secondary Education should send all radio lessons on WhatsApp and most of the parents and learners with hearing impairments will access these lessons and share, read and get quality education”. (PT19, a male learner)

The researcher noted that,

“Most learners in rural areas with hearing impairments are struggling to hear, understand and participate in radio lessons. There is need to have television lessons designed for them using videos with sign language and written translations.”

The learners with hearing impairments have been marginalized in teaching and learning through radio lessons because they cannot hear. This affects their academic achievements; the participants suggested that, the Government, school committees, Non-Governmental Organizations should provide adequate books to be used by learners with hearing impairments. In addition, Mwamwenda (2014) observed that, television assist greatly in teaching and learning. In line with, Mwamwenda’s above assertion, the participants

recommended that, the Government, Schools and parents should by televisions and put into libraries and community halls for learners to learn.

Solution of lack of textbooks

On solution to lack of textbooks, Mrs Maviya, a private sector leader noted that,

“As an organization that is pro-rural quality education we are donating 5000 text-books of different primary school grade subjects to the community library. All primary school learners may have access to these books.” (PT8, private sector leader)

More so, Mr Takawira a male parent suggested that,

“The schools, Government and Non-Governmental Organizations should partner and provide adequate written textbooks to rural schools. This helps our learners in rural areas with to receive quality education.” (PT18, a male parent)

The researcher explained that,

“There is need to provide quality and enough textbooks to rural learners to compliment the radio lessons”.

There participants agreed that, for effective radio lessons need to be supported by textbooks to be effective. Therefore, they recommended that, the Government and Non-Governmental Organizations should provide quality textbooks to rural learners. In 2008, the Government of Zimbabwe partnered with UNICEF and provided textbooks all schools (Ministry of Primary and Secondary Education, 2008; UNICEF, 2020). However, 12 years down the line some books have been damaged and the Government of Zimbabwe has introduced new curriculum with new information. Consequently, there is need for new textbooks

Solution of English language and pronunciation difficulties

On the solutions of English language and pronunciation difficulties, Mr Danford a teacher noted that,

“I suggest that radio lesson presenters should speak slowly, using simplest English words and pronounce English words accurately”. (PT4, a male teacher)

On solving English language and pronunciation difficulties, Ms Tandiwe a Ministry of Primary and Secondary Education explained that,

“As a ministry we have to workshops with the radio lesson presenters on how to pronounce English words and use of low level English that is understood by almost everyone” (PT19, a female, Ministry of Education Official)

Furthermore, Mrs Moyo parent said,

“I suggest that, the Ministry of Primary and Secondary Education should train the content lesson writers to use simple language that make it easy for the lesson presenters to use when teaching”.(PT2, female parent)

The researcher is the view that,

“English language is the second language of most rural learners and they real struggle to understand and speak English. This has greatly affected their understanding of radio lessons. As a result, there is need to solve English language problems being encountered during radio lessons”.

The participants aver that, the radio lesson presenters should speak slowly in good English that is easily understood by the learners in rural primary schools. Most of the rural learners are not fluent in English language as it is their second language (Damba, 2008). Therefore, there is need is need to write lesson content in easy to understand English language and radio presenters should be trained to pronounce words in a manner that is easily understood by learners.

Solution of illustrations, pictures and diagrams

On Solutions of illustrations, pictures and diagrams, the learner Nancy said,

“If the lesson presenters use textbooks that we have at schools, they have to tell us the page where there are illustrations, pictures and diagrams. This will make it easier for us to see the pictures and learn for there”. (PT20, a female learner)

On solution to mitigate illustrations, picture and diagram challenges, Mrs Tonhodzai the school head advised that,

“School authorities such as school heads and administration, School Development Committees and Government should provide textbooks and reading materials that are being used by radio lesson presenters before the lessons are taught” (PT11, female school head)

Researcher commented that,

“One way also to solve lack of illustrations, pictures and diagrams is to photocopy them from school textbooks and give learners to use at home.”

The participants recommend that, there is need to give each learn textbooks, that will help them to see diagrams, illustrations and pictures as the lesson presenter is teaching and even after the lesson. This helps them to remember information taught (Mudavanhu, 2018). Therefore, school authorities and parents should give textbooks to learners.

Solution to lack of electricity supply, load shedding and high cost of radio batteries

Local chief Mr Maranda said,

“There are areas that have no electricity since 1980 when we get independence in this rural area. The Government should urgently put the electricity infrastructure in all rural areas as a way to develop the marginalized communities and this also helps our children to receive quality education through using computers, radios, internet services and other technological gadgets”. (PT3, chief local leader)

On load shedding Mr Takunda, a private sector leader argued,

“The load shedding may be mitigated by installing solar systems at schools, libraries and on other buildings that provide critical services to the community such as clinics” (PT22, private sector male leader)

In addition, on high cost of batteries, the learner Providence explained that,

“There is need for the Government, Non-Governmental Organizations, private sector and parents to buy solar powered radios. Radios that are powered by solar can be used for a long time as long as there is sun and in this area sun is in abundance” (PT12, a female learner)

Participants in this article agreed that, there is need for provision of electricity in most rural areas. It is Government’s responsibility to provide adequate supply of electricity. Furthermore, there is need to reduce electricity tariffs in order to cater for the poor community members. The participants recommended the use of solar powered radios, the same radios which were donated to Zimbabwe rural schools by UNICEF (2020).

From the above challenges affecting teaching and learning through radio lessons and solutions to mitigate these challenges, I came up with the following conclusion and recommendations:

Conclusion

The introduction of primary school radio lessons is one of the strategies employed as to advance quality and inclusive education in Zimbabwe education system during Covid-19 era. However, this noble intention of teaching and learning through radio lessons in Zimbabwe rural primary schools has been negatively affected by some challenges that include, lack of money among parents and learners to buy radio to use, lack of radio signals among others. The participants in this article collectively offered some ways to mitigate challenges that negatively affect radio lessons focusing teaching and learning among rural school learners. Some of the way to reduce impact of challenges affecting radio lessons as method of teaching and learning include the donations of radios to rural learners and school by individuals, Government and Non-Governmental Organizations and putting radio infrastructures in rural areas.

Recommendations

To enhance the effectiveness of radio lessons in teaching and learning among Zimbabwe rural primary schools, I make the following suggestions: There should be awareness programs to concertize the rural communities on the importance of teaching and learning

using radio lessons among primary school learners. In addition, there is need for the Government of Zimbabwe to urgently put radio infrastructure in marginalized rural areas in order for learners to have access to radio signals. The use of teaching and learning using television lessons and internet platforms such as WhatsApp may help to accommodate learners with hearing impairments in rural areas who cannot use radio. On the other hand, I recommend that, the future researchers should engage in quantitative or mixed methods to find the effectiveness of radio based lessons in teaching and learning among rural primary school learners in Zimbabwe. Furthermore, there is need for future research studies in the effectiveness of online teaching and learning methods among rural learners in Zimbabwe.

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