

Zambia's Response To The Coronavirus (Covid-19) Driven- School-Closures: The Effectiveness Of TV Teaching To The Learners And The Teachers In Secondary Schools: The Case Of ZNBC TV4 channel introduced in the wake of COVID-19 on the Topstar Decoder.

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Abstract- According to Ngware (2020), Countries around the world have responded to coronavirus (COVID-19) driven school closures by adopting remote learning approaches, with many deploying online learning programs. However, online learning has exposed deep digital divides between and within countries, including high-income countries. The situation is far worse for lower resource environments in middle- and- low-income countries with Internet penetration rates typically less than 50% and a large share of students without devices to enable online learning at home. Countries are therefore turning to television to significantly increase access to remote learning.... (Ngware, April 19, 2020), but is this effective for middle and low income countries? How many learners could be benefiting from this initiative?

This paper aimed to bring to the fore how effective television teaching was in countries like Zambia where it was the most widely used and disseminated means as an intervention to continued learning for pupils in the countries. The researcher used a descriptive research design because of the descriptive and analytical nature of the study. As can be seen from the literature reviewed, the researcher has shown how the MoGE not created an even learning environment while being involved in the provision of education in the country. Although some learners have used television lessons to remain 'learning something' during the COVID-19 era, the researcher is interested in knowing whether the TV lessons were effectively covering the syllabus and the time lost.

Index Terms- Television(TV) teaching and learning, ZNBC TV 4, Topstar Decoder, educational technology, COVID 19.

I. BACKGROUND

The normal teaching and learning in the Zambian education setup is highly an interactive classroom teaching. Interactive teaching is a means of instructing whereby the teacher actively involves learners in their learning process by way of regular teacher-learner interaction or learner-learner interaction, use of audio-visual aids and hands-on demonstrations. The learners are constantly encouraged to be active participants. (www.interactivetutors.hk>interactive Sept 5, 2011, accessed on 03/05/2020).

This national summary provides an overview of the structure of Zambia's general education system: out of 9,852 schools, 90% (8,843) are primary while 10% (1009) are secondary schools. A total of 4,139,390 learners were enrolled in 2017, representing a gross enrollment rate of 104.3% at primary and 46.4% at secondary levels. The efficiency and equity indicators suggest the need for further strengthening of the general education system.

(https://www.moge.gov.zm/download/statistics/annual_statistics/Educational-Statistical-Bulletin/EDUCATIONAL-STATISTICAL-BULLETIN-2017.PDF)

At the moment the effectiveness of educational technology depends on the strength of national networks and connectivity to technology. It's dependent on service providers and the devices at the disposal of schools, parents and learners, such as smartphones. To add to these are country-specific market realities, such as taxes and incentives.

Such efforts will be more effective if complemented with smartphone penetration. This currently stands at [far below 50%](#) of the total population in most countries. A 2017 survey showed that

smartphone penetration was at 51% in South Africa, 30% in Kenya and 13% in Tanzania.

In Africa, [internet penetration](#) in March 2020 stood at 39.3% of the total population compared to the rest of the world at 62.9%. In a few countries such as Ghana and South Africa, smartphone and internet penetration seem to go hand in hand, but for other countries such as Kenya, Nigeria and Senegal, internet penetration is way ahead of smartphone penetration. (Ngware, April 19, 2020)

Zambia shares in these limitations, hence, the Ministry of General Education (MoGE) had embarked on the use of television teaching to reach out to the learners who had to prematurely close schools and stay home for safety.

II. STATEMENT OF THE PROBLEM

In the wake of COVID 19, schools and all learning institutions had to close up and pupils were subjected to stay home for long periods of time with literally very little learning taking place. This worried many governments and in Zambia particularly, the first intervention that government initiated was the introduction of television learning. This was introduced with the opening of a television station solely for educational programs.

ZAMBIA NATIONAL BROADCASTING CORPORATION (ZNBC) OPENS AN EDUCATION CHANNEL ON TOPSTAR

Government has challenged parents to encourage their children to watch the newly launched ZNBC Education Channel 9. Ministry of General Education Permanent Secretary Jobbicks Kalumba says parents should not relent but take a role of teachers in homes. Dr. Kalumba told ZNBC news that the Ministry will ensure all necessary lessons are provided on ZNBC TV 4 for children, he said, government will also print education materials on CDs to be distributed country wide for the pupils. Dr. Kalumba said the printed education materials will supplement those that will be televised on TV and radio in rural areas (Jere, 2020). This paper aimed to establish the effectiveness of this television learning for the secondary school learners in Zambia.

III. INTRODUCTION

The use of television as a tool for formal education is an established fact. The extent of its use in this field, the size of television classes, the most effective subject matter adaptation, and the relationship of television teachers to classroom teachers are still matters of speculation and experimentation. Television being a dynamic instrument and Education being a dynamic process, it is probable that such speculation and experimentation will continue for a long time to come. And will produce a great many ideas and techniques in the field of learning. It can be reasonably stated that television teaching holds no threat to the professional teacher; it is not a substitute for teaching but an instrument for teachers to use in proportion to their ability to master its technique (Vernon, 1958).

Low and middle-income countries have been using education television [since the 1950s](#) including interactive television lessons more recently.

The World Bank's EdTech team has catalogued [examples of education television being used by countries during COVID-19](#) and has developed a [rapid response guidance note on using educational television programming](#) during school closures. This blog summarizes five key insights on starting, using and sustaining education television for remote learning, corroborated by more than 40 current examples from countries.

Five key things to get started

1. Use a mix of live broadcasts, pre-recorded (on demand) content and edutainment programs.

Broadcasting live lessons in mock classroom settings is the fastest way to get started for countries with limited or no education television experience (e.g. [Morocco](#), [Spain](#), [South Africa](#)). Some countries have existing national education television networks with a wide reach. For those Broadcasting existing pre-recorded material (possibly available as on-demand content) from private and non-profit organisations (e.g. [Khan Academy](#)) is a useful option for countries with existing educational television programs (e.g. [Croatia](#), [Spain](#)). Edutainment programs that provide education in the form of entertainment is another useful source for programming. Developing these as a short-term response to COVID-19 is not advised. Instead, consider sourcing, curating and obtaining intellectual property rights for existing content from local or international sources (e.g. Ubongo used in [33 African countries](#), Sesame Workshop used in [40 countries](#)).

2. Identify channels for broadcasting programs.

without this, partnering with state television networks is a quick-start solution. [Morocco](#)'s national channel dedicated to sports is now being used to broadcast educational television as well. Partnering with private broadcasters can further amplify the reach of this programming across communities and allow simultaneous broadcasts for students across grade levels (e.g. [Mexico](#)). Rebroadcasted content is another way to amplify its reach using livestreaming or as on-demand content (e.g. Kenya uses YouTube, [Pakistan](#) uses an app).

3. Develop schedules for educational television programming.

Broadcast schedules must clarify where and when such broadcasting can be accessed. Some countries are providing student-friendly daily and weekly schedules on their education ministry's website (e.g. [Mongolia](#)), some on their education television network websites (e.g. [China](#), [India](#)) and some on institutional websites (e.g. [Kenya](#)).

4. Develop a communication strategy and communicate regularly.

Continuously communicating during this period is pivotal to the success of such programming. Communicate before launching the programming (e.g. [Brazil](#), [West Bank and Gaza](#)). To amplify awareness, communicate schedules continuously and widely using every available media including television, radio, mobile phone via text messages or WhatsApp (e.g. [Peru](#)), social media like Facebook (e.g. [Rwanda](#)) and websites of education ministries and education television networks (e.g. [Korea](#)). Organizing all programming related resources in one place makes it easier to access them and increases uptake. This can be done on

the education ministry website, national television network website, etc. (e.g. [India](#), [Nigeria](#), [Uganda](#)).

5. Provide support for students, parents and educators.

Throughout this programming, students, parents/caregivers and educators will require technical support (e.g. toll-free helplines or low cost [chatbots](#) can be employed), pedagogical support and socio-emotional support (e.g. [Spain](#)). Teachers can be mobilized to provide this (e.g. [China](#)). Education television can be made more interactive by answering questions during lessons. Questions can be collected by phone calls, text messages, email or social media, and answered during live lesson recordings. Keep multiple communication channels open (e.g. [Jamaica](#) has 36 helplines) and encourage feedback to improve the programming (e.g. [China](#), [Russia](#)).

(**Sharon Zacharia and Alex Twinomugisha**, Educational television during COVID-19: How to start and what to consider, |**APRIL 24, 2020**, **Education for Global Development in worldbank blogs**, <https://blogs.worldbank.org/education/educational-television-during-covid-19-how-start-and-what-consider>, viewed on 25/05/2020.)

EDUCATIONAL BROADCASTING SERVICES (EBS) OF LEARNING AT TAONGA MARKET: A ZAMBIAN STRATEGY

Learning at Taonga Market is one of the most successful education initiatives in Zambia's history. Since the radio lessons were first broadcasted 2001, hundreds of thousands of vulnerable children have received a high-quality education listening to our solar and wind-up radios. Taonga Market uses effective interactive radio instructions (IRI) methodology and follows the national curriculum. Lessons are broadcast over community radio stations across Zambia. (Education, 2014).

MATERIALS AND METHODS

IV. RESEARCH METHODS

The researcher used a descriptive research design because of the descriptive and analytical nature of the study. As can be seen from the literature reviewed, the researcher has shown how the MoGE not created an even learning environment while being involved in the provision of education in the country. Although some learners have used television lessons to remain learning something during the COVID-19 era, the researcher is interested in knowing whether the TV lessons were effectively covering the syllabus and the time lost.

In researching on this topic, the researcher used Qualitative research methods. The researcher used qualitative research methods because the techniques used in data collection was literature review, interviews and observation of how the Ministry of General Education in conjunction with ZNBC channel 4 on the TopStar decoder was effective in delivering TV lessons in Zambia.

7.1. Data Collection Methods

In the data collection, the researchers collected the data in two ways, namely; primary data collection and secondary data collection methods.

7.2. Primary Data Collection

In the primary data collection, the researchers used qualitative methods. In the qualitative methods, the researchers used the Literature Review, Interviews and Observation methods because these were the best methods to achieve the required results. The researcher needed to review the literature in order to learn of what the impact television lessons in terms of the television broadcasting media landscape, conduct interviews in the various home set-ups so as to get the views of the learners, parents/guardians and the teachers on how they were being impacted after the introduction of television lessons and also do their own observations to see whether these television lessons have assisted them amid COVID-19 school closure or not.

7.3. Secondary Data Collection

The researchers used some books, magazines, newspapers and the internet to beef up on the primary data that was collected. This is reflected in the section dealing with literature review across the breadth and length of Sub Saharan Africa. Document data collection is crucial for the purposes of reinforcing the primary data as well as the entire research so that there is more substance and evidence. This added up to the credibility of the research findings.

7.4. Sampling Technique

This research applied the purposeful/judgemental sampling technique because the researcher knew the target groups which were the school going pupils. Another sampling technique that was used was the expert sampling technique which meant surveying experts in the teaching field and get their views on this subject matter.

7.5. Data Analysis

In analysing the Literature Reviewed, the researchers focused on the actual content to determine whether in the implementation of the television lessons by Topstar Company on ZNBC channel 4 was doing anything to the benefit of Zambian learners and how many learners has accessed this national service initiated by the Ministry of General Education (MoGE) for all grades from Early childhood to grade 12.

However, in the case of Zambia, many other factors needed to be considered even before television learning/teaching can be considered as an option. These factors include Access to electricity, Access and Usage of Television and number of secondary school learners who are in privileged households that own a working and connected TV set and TopStar decoder. Their ability to subscribe monthly to the service providers TopStar and maintain this cost continually..

a) Access to Electricity by Households

A key feature on households investigated was the access to electricity which has possible causal influence on uptake of ICTs. Only 32.9 percent of the households indicated that they source power through a utility company. The problem is particularly pronounced in rural areas where only 6 percent of the households receive electricity from utility companies while 65.5 percent of households based in urban areas have access to electricity through power utility companies.

b) Access and Usage of Television and Radio Broadcasting Services

The proportion of households across the whole country with a working television set increased from 33 percent to 37 percent between 2015 and 2018. The proportion of households across the country that own a working radio reduced from 45 percent in 2015 to 40 percent in 2018. ZNBC television stations remain the most widely accessed local television stations by households that own working television sets in Zambia. On the other hand, the majority of households in the country that own working radios indicated that they access community radio stations. GoTV and TopStar recorded the highest frequency of households that indicated that they owned a working television set which was used to access broadcasting services and had access to pay television channels constituting 56.5 percent and 28.4 percent respectively (ZICTA, 2018). With only an access rate of 28.4 percent it is clear that TV learning failed to meet its intended objective.

V. FINDINGS

Comparing the milestones achieved during the Taonga Market radio programs, it is evident that the Television teaching/learning initiative needed a number of prequisite strategy before being implemented for use by the learners. Most learners seemed to have failed to benefit from these initiatives due to many reasons ranging from lack of electricity, television sets to connectivity issues in the rural areas. While the TopStar decoder was unaffordable for some households, the TopStar decoder lacked popularity among the learners who were privileged to be in affluent households.

Learners did not appreciate the content of the lessons on television as it seemed lacking in content to their normal school lessons. Learners also missed out on the interactive side of the lessons making follow up very difficult. In addition not all grades and subjects were taught during this period leaving out a number of levels.

VI. RECOMMENDATIONS AND CONCLUSION

1. Connect and learn from other countries.

While the use of radio learning seems to have been a success story in the taonga Market programme, we have very little to show on any achievements in Television teaching/learning. It is therefore prudent that we fall back on other countries that have used TV as a starting point. These are countries with a history of using educational television (eg. [Brazil](#), [China](#), [Ethiopia](#), [Ghana](#), [India](#), [Mexico](#)) or have longer experiences using television to respond to school closures (e.g. [Korea](#)).

2. Content used during COVID-19 closures can be reused when schools reopen and to reach out-of-school children.

Video has one great advantage in that students can review the content multiple times, thereby possibly increasing its effectiveness. It is important to archive all the education television programming on online platforms (e.g. education television website, YouTube) and reuse them for regular school lessons and to reach out-of-school children (eg. [Mexico](#)).

3. **Compliment television with expanded access to the Internet and devices.** This can amplify the reach, impact and effectiveness of this television programming as well as related communication including, program schedules and support. This is possible even with limited Internet connectivity (e.g. text messages, WhatsApp) and simple devices. Access to digital platforms that host this education programming can be [zero-rated](#) (eg. Ghana, Korea, Qatar). Partner with Internet service providers to provide free internet access to online learning platforms, this has been achieved in [Kenya](#), [Rwanda](#), [Nigeria](#). Ministries and schools can loan out devices to students this the way [Saudi Arabia](#) has managed.

4. Consider supplementary actions like text messages and print material.

Supplementing television programming using print material like workbooks, written homework or newspaper-based activities can improve its effectiveness like in [Bangladesh](#). Text-messages can be used to 'nudge' parents/caregivers, students and educators with reminders to use this programming, share feedback or adopt 'good practices' that supplement the effectiveness of this programming.

5. Consider diversity, equity and inclusion.

Varied expertise can add diversity to this programming, say, by bringing in musicians, chefs or photographers to support teachers in providing real-life lessons to students of all ages and learning capabilities.

6. Zero-rate education websites to provide cost free access to learners.

The MoGE should work in partnership with internet service providers to zero-rate education websites for all levels of our education system. With this provision of free access to learners, it will be easier for the learners that have access to the internet to concentrate on the use of their devices for educational purposes. This has been done in South Africa through A [telecom operator](#), Telkom ZA, and it is achievable here too. (operator, 2020).

7. Cover all grade levels

It would be very important to cover all grades in an initiative like this as all learners were affected by the pandemic. Covering just a few grades left out most would-be beneficiaries from the initiative.

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