COVID-19 pandemic has affected almost every country in the whole world Uganda inclusive. The Pandemic has created the largest disruption of education systems in history affecting over 1.6 billion learners in more than 190 countries and all continents (UN, 2020). As a result, countries locked down their economies including schools. Consequently, the government of Uganda and the private sector adopted mechanisms for continuity of learning for instance designing websites for online learning, learning via zoom, WhatsApp, Facebook, You tube and email, learning via television sets, radios and printed materials from both the government (National Curriculum Development Centre) and schools. However, the questions that have remained unanswered include what proportion of the students in rural and urban areas affected by the closure of schools was able to benefit from a particular learning method and what were the challenges? What appropriate
methods can Uganda Government institute to ensure students’ continued schooling amidst any shock?

The study took place in both urban and rural areas of 20 districts of Uganda distributed in all the six regions of Uganda, (Central, East, Kampala, North, South and West). The districts that were visited, are: Butaleja, Gulu, Hoima, Iganga, Kampala, Kamuli, Kayunga, Kibale, Kyenjojo, Lira, Lyantonde, Masaka, Mbale, Mbarara. Others were, Mukono, Nakasongora, Ngora, Palisa, Soroti and Wakiso. Using a questionnaire and an interview guides, the study obtained information about the ownership/access of different ICT facilities such as smart phones by the students and parents/guardians, availability of Televisions (TV) and radio in the homes, knowledge of information technology (IT) by the students and teachers, and affordability of internet among other questions. In each district, two schools were selected, one in the urban and the other from the rural area. Of these two schools one had to be government aided and the other privately owned. In each school, at least 12 students from S.1 to S.6 were selected bearing in mind gender equality. Additional information was obtained from key informant interviews (KII) and these included: head teachers, teachers and parents/guardians. The key informants were Head teachers of the selected schools, 2 teachers; one a science teacher and arts teacher from each selected school, and 2 parents/guardians from each selected school.

The study finding show a significant difference in access to ICT facilities among the urban and rural schools with students in urban schools having more access compared to their counterparts in rural schools.

The mean differences for alternative teaching methods by rural versus urban areas were significant for TV teaching, school WhatsApp, coaching by teachers, school website, YouTube teaching and teaching via social media. In addition, there was no significant mean differences of alternative learning methods between the private and government owned schools. Most of the students, ranked teaching via television as the most preferred choice, followed by online teaching via smart phones as number two. These were followed by online teaching via computers/laptops/tablets, distance learning via printed material from the school, printed materials from the ministry of education, distance learning via radios and newspapers.
Distance learning via television was preferred by students largely because students can see the teacher and what is being taught. Even the practical science subjects including mathematics can easily be taught since the students can listen at the same time watch the demonstration by the teacher. With learning using WhatsApp, learners can easily seek for clarification from the teacher. While printed material from school, Ministry of Education and newspapers can be referred to at a later date.

**Challenges encountered while using different methods of alternative learning**

1. **Challenges when using radio**
   - Majority of the respondents agreed that it is very hard to understand what is being taught if one cannot see the teacher.
   - It creates boredom, loss of interest and students end up not understanding anything taught in the lessons.
   - Teachers who teach on radios were found to be very fast, thus making explanations unclear.
   - Slow learners cannot get some spellings rightly due to limited time given to them for that particular lesson.
   - There is lack of interaction between the learners and teachers.
   - Radios do not provide room for asking questions and provide answers to the learners,
   - There is lack of a proper and clear time table.
   - Some radio stations are inconsistent in terms of broadcasting lessons.
   - Poor signals accompanied with lots of adverts.
   - Students also mentioned that teachers only concentrate on candidate classes thus leaving out other classes and subjects.
   - Radios are only applicable to arts and theoretical subjects and this leaves out students who are doing science subjects.
   - Lessons are given very little time and sometimes teachers leave topics with unclear explanation.

2. **Challenges when using television**
• Arts subjects have not been given the required attention instead focus has been put on science subjects.
• There is a challenge of monthly subscription fees.
• The challenge of unstable electricity and signals which makes them to miss some lessons.
• Some teachers are fast so some students sometimes do not understand.
• Lack of opportunity to ask questions by students or teachers so as to provide feedback.

3. **Challenge of studying by newspapers**

• A considerable number of students mentioned that they cannot consult and get clear explanations about the concepts in the newspapers.
• Learning materials in newspapers do not provide clear explanations, lack content thus do not cover the syllabus in details, and at times there are several typing errors.
• Newspapers are not readily available more especially in rural areas.
• They are expensive to buy on a daily basis given the fact that many parents are poor and have not been working during the lockdown.
• Newspapers majorly cater for candidate students and thus only send work targeting candidates only leaving out other classes.
• Newspapers use very complex terminologies when explaining some concepts, provide summarized work and are always unreliable.

4. **Handouts from the Ministry of Education and Sports**

• The Ministry provided complicated notes which are very hard to understand.
• The copies were insufficient and inaccessible to most schools and a number of students.
• Students and schools were required to photocopy the handouts, yet in rural areas these services are un-available.
• Students also mentioned that ministry handouts cover very few subjects and mostly target candidate students.
• Ministry notes were found to be shallow in depth, having small letters, very brief, and majority of the topics are not well explained for easy understanding.
• There is also limited information on the supply and access of ministry notes and there has been some bribery to access them accompanied with poor distribution channels.
• Some respondents reported that material is not updated, at times it is sold instead of zero fee access, the practical work is not clear.
• Majority of students reported having no access to them especially in rural areas.

5. **School Website**
• One needs to buy a lot of data bundles which is costly especially in times of lockdown.
• Schools sometimes post notes with no clear explanation.
• Some respondents reported that not everyone gets a chance to visit the website and sometimes the website is on and off.
• Some schools’ websites were very active in the first months and thereafter they stopped posting notes.
• Some students identified ignorance on how to use websites as a big challenge.
• Many schools have no websites while some respondents did not know whether their schools have website or not especially those in rural areas.

6. **WhatsApp**
• Majority of the respondents observed that data is expensive let alone additional expenditure on OTT.
• Respondents also reported poor network connections as a big challenge,
• Teachers take long to reply to students’ queries.
• Respondents also responded that it is not easy to learn via WhatsApp due to other interferences and teachers always send unexplained notes.

**Recommendations from the study:**

- The Ministry of Education should set up its own Radio and Television stations that do not require monthly subscription purposely for learning, no advertisements and with a clear program.
The government should increase the supply of well written and detailed reading materials, distribute learning materials to upcountry areas, sensitize and encourage e-learning country wide.

The Ministry of education should provide a clear timetable and allocate more time to teachers to explain concepts in details, allow an interactive session where learners can call and ask questions for clarification.

Teachers teaching on televisions and radios should be more qualified, avoid being speedy while teaching to allow all students follow and always provide detailed explanations while teaching.

Schools should send work to parents’ WhatsApp for downloading.

The ministry of education should monitor the distribution of learning materials, promote and encourage schools to adopt E-learning, train and equip teachers on how to teach online.

Parents should be sensitized to allow and facilitate students to learn from televisions, radios, and other e-learning facilities.

Government should laisse with telephone companies to provide personalized smartphones and tablets, network-locked with special telephone lines for students for learning purposes such that incase of loss of smartphone, it cannot be used elsewhere.

Government should negotiate with internet providers such that access to Education websites should be free of charge hence requiring no data.

Government should ensure printed learning materials from the ministry of education are adequate and also reach the rural areas, provide radios to rural households, and TVs to community education centers and extend electricity to rural areas and make it affordable.

Schools should create affordable learning packages and avail them to students, send more handouts to students for self-study.

Tablets and smartphones for learning purposes should be tax free, and tagged to e-learning platforms only.

Schools should be encouraged to make their handouts available to all nearby students irrespective of the school they go to.

Education Newspaper prints should be introduced and availed at affordable prices to poor students.
Schools/teachers should keep in contact with students through giving out assignments and notes to revise and mark.

Parents should be keen on their children and encourage them to attend televisions and radio lessons whenever they are broadcasted.

Lessons on both televisions and radios should be recorded and rebroadcasted according to the stipulated time table to enable students who missed to get on track.