

Effects Of Covid-19 On Pupils' Academic Achievement In Isoka District Of Muchinga Province, Zambia

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Abstract

Introduction: Covid-19 disease has negatively affected many sectors of the world, including the education sector. School closures due to the outbreak of this disease has negatively affected pupils' academic achievement, especially in rural areas. Online and other distance learning platforms at secondary school level are currently not as effective as the physical contact of teachers and pupils in rural areas of Zambia. Pupils in rural areas, like Isoka district lost out academically due to these closures, hence the importance of this study on effects of covid-19 on pupils' academic achievement. This study could help future pupils in examination classes to prepare for such unforeseen circumstances in their school life. **Aim:** To investigate the effects of Covid-19 on academic achievement of pupils in Isoka district of Muchinga province in Zambia. **Methodology:** Data collection was done using open-ended questionnaires. Data were then reviewed, organised and categorised to find common patterns across the data set. Themes were then formulated and presented in a consistent manner. **Results:** Results show that participants' academic achievement was negatively affected by school closures due to Covid-19 pandemic. Online learning platforms such as television, radio, WhatsApp, zoom, and many others did not adequately help rural pupils like those in Isoka district due to difficulties in accessing them. **Recommendations:** Teachers, parents, and pupils must cooperate and enhance academic achievement of pupils to enable them handle examinations regardless of any unforeseen disturbances such as Covid-19 pandemic.

Keywords – Covid-19 disease, School closures, Academic achievement, Examination classes, Pupils

I. INTRODUCTION

Covid-19 has come with its own challenges on almost all sectors of livelihood, and the education sector has not been spared. Based on the Covid-19 imposed closures of schools and reduced contact time with regard to pupil-teacher interactions, this study aimed at investigating the effects that covid-19 has on academic achievement of pupils in Isoka district of Muchinga province in Zambia.

In the year 2020, many students had to learn in front of screens at home and in other settings, affected by illness, loss and economic hardship stemming from the global pandemic [1]. Even with heroic efforts by teachers, staff and school leaders, many of whom quickly developed online lessons, remote-teaching plans and concrete strategies for meeting students' basic needs, challenges were profound. Rural and high-poverty school districts faced especially stark challenges early in the pandemic maintaining one-on-one contact and regular checking's between teachers and students in a virtual setting. More generally, learning time also dropped from pre-pandemic norms in many schools around the country.

According to one nationally representative survey from May 2020, only 15% of districts expected their elementary students to be receiving instruction for more than four hours per day during remote learning, while 85% of districts expected instructional time to drop under four hours, more than an hour per day less than the pre-pandemic national average of five instructional hours per day [2]. Even further, according to the same report, in nearly a fifth of districts surveyed 17% of the instruction students did receive in spring 2020 was designed not to teach new skills and understanding, but to review what had already been taught, in a sort of pandemic holding pattern. That picture improved, however, through the 2020-21 school year. By January 2021, according to a nationally representative survey conducted by the National Center for Education Statistics, 31% of districts were reportedly offering more than five hours of live instruction for their fourth grades learning remotely, with 34% offering the same for eighth graders during remote learning [3]. Those figures remained roughly constant through the spring of 2021 [4]. Meanwhile, the number of students receiving in-person instruction also rose steadily throughout the spring: from 38% of fourth grades and 28% of eighth graders learning in-person by January to 44% and 33%, respectively, by March. And by the same time, 88% of schools nationwide were offering some form of in-person learning, whether fulltime or in hybrid settings, with 54% of schools with fourth or eighth grades providing the option of learning in-person fulltime to all students. Yet, despite the improving picture overall, Black, Latinx, and Asian students were all substantially less likely to be enrolled in fulltime in-person instruction through the spring. Report by [5] that the spread of Covid-19 has sent shockwaves across the globe.

The public health crisis, unprecedented in our lifetimes, has caused severe human suffering and loss of life. The exponential rise in infected patients and the dramatic consequences of serious cases of the disease have overwhelmed hospitals and health professionals and put significant strain on the health sector. As governments grappled with the spread of the disease by closing down entire economic sectors and imposing widespread restrictions on mobility, the sanitary crisis evolved into a major economic crisis which is expected to burden societies for years to come. According to the Organisation for economic co-operation and developments (OECD's) latest *Economic Outlook*, even the most optimistic scenarios predict a brutal recession. Even if a second wave of infections is avoided, global economic activity is expected to fall by 6% in 2020, with average unemployment in OECD countries climbing to 9.2%, from 5.4% in 2019. In the event of a second large-scale outbreak triggering a return to lockdown, the situation would be worse [6]. All this has implications for education, which depends on tax money but which is also the key to tomorrow's tax income. Decisions concerning budget allocations to various sectors (including education, healthcare, social security and defense) depend on countries' priorities and the prevalence of private provision of these services. Education is an area in which all governments intervene to fund, direct or regulate the provision of services. As there is no guarantee that markets will provide equitable access to educational opportunities, government funding of educational services is needed to ensure that education is not beyond the reach of some members of society. In 2017, total public expenditure on primary to tertiary education as a percentage of total government expenditure was 11% on average across OECD countries. However, this share varies across OECD and partner countries, ranging from around 7% in Greece to around 17% in Chile. However, government funding on education often fluctuates in response to external shocks, as governments reprioritize investments. The slowdown of economic growth associated with the spread of the virus may affect the availability of public funding for education in OECD and partner countries, as tax income declines and emergency funds are funneled into supporting increasing healthcare and welfare costs.

Report by [7] indicates that COVID-19 is disrupting children's education, learning and wellbeing in substantial ways. The effects of the pandemic on children vary widely according to region and other demographic characteristics including disability, minority status, indicators of poverty and gender. Further effects vary according to access to teachers and a variety of learning resources. A reminder that findings reported from parents and caregivers are specific to one of their children of school age (the 'indexed child' aged 5 to 17 years). In contrast, findings from the children themselves are from children aged 11-17 years who may or may not be the same as the indexed child, and represent a smaller sample than the parent or caregiver respondents.

The global coronavirus (Covid-19) outbreak is already having a serious impact on the global and national economies, health systems, education systems and more, and ultimately on the fulfilment of children's rights. A number of governments have implemented measures to contain the spread of Covid-19, ranging from social distancing and behavioural changes to home isolation or quarantine, school closures, business closures and community lockdown as well as vaccination. Around 1.5 billion children and youths were affected by school closures in the first half of April 2020 [8]. In addition to the immediate impacts on their health rights and those of their caregivers, the social and economic disruptions caused by the outbreak of Covid-19 present a range of other risks to children's right to education and to their wellbeing and protection. These may be derived directly from the outbreak, from measures taken to respond to it and from wider economic and other disruption. The World Health Organisation coordinated Global

Research Roadmap summarizes the available literature on this topic: These measures all have secondary impacts. Quarantine, for instance, has impacts on the mental and physical health of populations. A rapid systematic review of publications reporting previous events of quarantine for infectious disease outbreaks, identified how knowledge of the disease, clear information regarding quarantine procedures, social norms, perceived benefits of quarantine, perceived risk of disease, and ensuring sufficient supplies of food, medicines and other essentials were important factors to promote adherence to the uncomfortable realities of quarantine measures [9]. Others have highlighted the critical role of trust, interpersonal and international cooperation that emerge in response to a collective effort in tackling a major public health crisis.

The disruptions caused by Covid-19 to everyday life meant that as many as 40 million children worldwide have missed out on early childhood education in their critical pre-school year. [9] They thus missed a stimulating and enriching environment, learning opportunities, social interaction and in some cases adequate nutrition. This is likely to compromise their longer-term healthy development, especially those children from poor and disadvantaged families.[8] In technical and vocational education and training systems, vulnerabilities including low levels of digitalization and long-standing structural weaknesses, have been brought to light by the crisis. Disruptions in work places made it difficult to implement apprenticeship schemes and work-based learning modes, key elements of a functional and market-responsive technical and vocational system. In the higher education sub-sector, while online learning has generally taken place through recorded lectures and online platforms, some universities have postponed learning and teaching until further notice, due to the lack of information technology (IT) infrastructure for both students and teachers

Results of the telephone interviews conducted with mathematics and science teachers in Chipata district of Zambia indicated that there would be a likely drop in the performance levels of both G.C.E candidates and Grade 12 internal candidates in the 2020 examinations. This is most likely to be caused by reduced contact hours for learners to the extent that they will largely not be able to consult teachers on the difficulties they encounter during their individual studying time. When asked how Covid-19 will affect performance in science subjects, the science teacher lamented lack of contact hours. The Head of Natural Sciences Department explained how these candidates will be affected with regards to school based practical assessment [10].

In Zambia a study by [11] reports that the findings converged factually that Covid-19 had enormous terrible impact on the quality of general education of the sector as a whole, but would greatly further dwindle the already average academic performance of learners in public schools. Among the vital views heralded by interviewees were the fact that although the Education Television (Edu.tv) broadcast programme was from initiation encumbered with barriers of accessibility by many learners as not all homes had Television (TV) sets nor internet access for online materials, it was also compounded by the 12-hour daily electricity load shedding schedule invoked by the local power utility company. Besides, the programme had reduced contact duration per subject and did not cover the grade seven (7) examination candidates or the entire primary school level. Furthermore, the materials for learners with disabilities were at the time not made available despite the fact that they were part and parcel of the 2020 examinations candidates and that the Edu.tv programme lacked interactionism and experientialism to facilitate learner attention, material retention, assimilation and absorption.

[11] goes further to strongly urges the Ministry of education (MOE) to urgently repackage and diversify the Edu.tv broadcast learning platform in order to make it accessible, equitable, dynamically intriguing and experientially insightful as per the social cognitive and experiential learning theories' prescriptions respectively. The programme also should be availed to more electronic or digital platforms to enable all learners access it while rural areas must be given preferential treatment with user friendly materials which are largely non-electronic.

II. METHODOLOGY

Research design: The study adopted a qualitative research design.

Target population: This study targeted pupils from Muchinga secondary school and Isoka boys provincial stem school. These schools were geographically spread in the district reflecting different characteristics on the basis of boarding boys and mixed day schools.

Sample size and sampling procedure: The sample size used in this study was fifty (50). The study employed purposive sampling because the researchers were interested in academic achievement of pupils who were in examination classes at a time.

Data collection Instrument: In this study questionnaires were used. The questionnaire items comprised of open-ended items to give the advantage of collecting qualitative data.

Data collection procedure: The researchers embarked on the process of collecting data from the field after obtaining research permits from the Head teachers of the respective schools.

Method of data analysis: The analysis of data commenced with editing and inspection of the pieces of data in order to identify simple mistakes, items that were wrongly responded to, and any blank spaces left unfilled by the participants. The questionnaires' responses were then put into themes to identify those that were common. Those common responses were selected to be part of the analysis.

III. RESULTS

Table 1: How has Covid-19 affected your learning at present?

Participant	Response
Participant 4	Disrupted learning which has resulted in insufficient time to finish the school syllabus and prepare effectively for the examinations.
Participant 3	Not being able to interact with fellow pupils for group discussions and syllabuses have not been completed for effective preparation for examinations.
Participant 29	The learning hours have been reduced leading to us pupils learning few things that are not enough for our examinations.
Participant 16	Due to closure of schools learning has not been effective and this might lead to failing of examinations.
Participant 49	It has affected my performance at school because the morale for studying has gone due to unnecessary closing of schools.
Participant 7	It has led to a number of schools drop outs. It has also slowed the coverage of the syllabus.
Participant 6	It has slowed the coverage of the syllabus, and it has made pupils lazy.

Source: Filed data, 2021

Table 2: How do you think Covid-19 will affect your performance in the final examinations?

Participant	Response
Participant 43	Not finishing the syllabus will affect my performance in the final examination because the examination is prepared covering the entire syllabus.
Participant 49	My final examination will be affected because we haven't finished our

	syllabuses in some subjects.
Participant 40	Our performance won't be so good as it should be if we were having normal learning.
Participant 3	Due to the lockdown that was experienced for six months in 2020 and three months in 2021 made us to lose a lot of time for preparation for examinations and completion of the syllabus, therefore leading to low marks.
Participant 16	Because most time is spent writing notes and learning, making pupils tired, hence studying won't be effective.

Source: Filed data, 2021

Table 3: What strategies have you as a pupil put in place to ensure good performance in the examinations amidst Covid-19 disturbances?

Participant	Response
Participant 29	Us as pupils we should study ahead of teachers so that we cover the syllabus and also forming study groups will really help us to cover up all things that are essential in the examinations.
Participant 4	By use of past exam papers for studying instead of textbooks, and by sleeping less and studying more.
Participant 48	Internet learning, self-provided study groups, and through topic research on things that we have not yet learnt.
Participant 35	Conducting study groups, remaining in school for a few hours after knocking off in order to have plenty time to study and by studying using past papers.
Participant 16	By printing out soft copy notes from our teachers to reduce on writing the notes, and concentrate on teachers' explanations, and also by focusing on studying with no excuse to give.
Participant 8	Make sure to follow the Covid-19 guidelines. To always observe personal hygiene.
Participant 6	Always wear a face mask correctly, keep a physical distance from friends for about 1.5 meters and sanitize hands using hand sanitizer.

Source: Field data, 2021

Table 4: Is there any catch up strategy put in place by the school management? If yes, how do you describe the catch-up strategy?

- All participants said yes there was a catch-up strategy put in place by the school management.

Participant	Response
Participant 43	Learning through WhatsApp groups for those with smart phones.
Participant 49	They have started teaching using past examination papers. It is a great strategy which will enable us to do well during examinations.
Participant 40	For mathematics our teachers come to teach us on weekends. It is good but they have to put more effort in order to help us out.
Participant 29	The school has created a WhatsApp platform where all the educational materials are posted. The strategy has really helped us to catch up in such a way that a lot of books have been provided and posted, and we have enough information to help us in our examinations.
Participant 8	Teachers have come up with an idea of teaching certain topics during evening prep.
Participant 6	Teachers have introduced strategies of having extra lessons in the evening and also teaching using past papers. These strategies have helped us to catch up because we are able to learn many lessons in a day. Covering topics through past examination papers has also helped.

Source: Field data, 2021

IV. DISCUSSION

When participants were asked about how covid-19 has affected their learning at present, a good number of them gave responses which showed that really the pandemic has affected the pupils. As noticed on table 1, some participants said that covid-19 has disrupted learning which has further resulted in insufficient time to finish the syllabus. This is owing to the reduction in the contact time as is reported by [2] who said the learning hours have reduced leading to the learners learning few hours that are not enough for the coverage of materials useful to pass examination. The results of this study are in line with the report by [2] that says 85% of the districts expected instructional time to drop to four hours per day which is more than an hour per day less than pre-pandemic national average of five instructional hours per day.

Further, some participants reported that they have not been interacting with their fellow pupils during learning as they used to when group discussion was used and this has affected those pupils that learn well in groups. Others said there has been reduction in the effectiveness of learning, performance has been affected due to reduction in morale for studying and further contributed to drop out in school going children especially girl children who when schools were closed not everyone managed to return back for school

as others got pregnant and others were married off by their parents thinking school was just a waste of time. The results of this study are line with the study by [10] who reported a drop in performance as a result of reduction in contact hours.

Moreover, when participants were asked to project how their performance in the final examination would be affected, most of them reported that examination is prepared from the syllabus, therefore not finishing the syllabus would affect their performance. Others stated that the performance would not be good because the quality of education has really reduced owing to in some part to lockdowns experienced for six months in 2020 and three months in 2021. This is in tandem with the study by [7] ,[9], [11] that reports that disruption in children's education and the impact on the quality of education provision. Other participants interviewed said that most of the time they spent writing notes as opposed to teaching and learning where everyone is involved actively. This change in some teaching methodologies will however affect academic progress.

However, when they were asked about the strategies they themselves had put in place to ensure that their academic achievement was not affected, they said some strategies put across included; Self-study, use of past examination papers as opposed to text books, internet learning that involve use of YouTube lessons, conducting group study and remaining in school for few hours. The group work and increase in contact hours is contrary to the guidelines put across by the ministry of general education to cab the spread of covid-19 and these pupils should be monitored to see how this is done.

When the participants were asked if there was any catch up strategies that was put in place by the school management, almost everyone said there were catch up strategies in place some of which included ;learning on WhatsApp for those with smart phones, teaching using past examination papers, having lessons on the weekend, learning certain topics in the evening. This is however a good response to help the learners especially those in examination classes enhance their academic achievement and be ready for final examinations.

V. CONCLUSION

In conclusion, the study results show that participants' academic achievement was negatively affected by school closures due to Covid-19 pandemic. Online learning platforms did not adequately help rural pupils like those of Isoka district due to difficulties in accessing them. This study further shows that pupils' academic achievement could be affected due to reduction in contact time that has seen teachers not covering enough and the changes in the method of delivery of the content. However it is good to note that both management and pupils at sampled schools put up some measures to help cover some work that were not covered when there were lock downs imposed by Covid-19 pandemic. These strategies could in a way help the pupils to perform well, improve their academic achievement, and progress academically. This is a job well done by the school management at the two schools in the study.

VI. RECOMENDATIONS

- Further research should be conducted to look at the effectiveness of the strategies put in place by both management and the pupils to enhance academic achievement.
- The use of some of these strategies should be an ongoing process so that pupils can get used to them.
- The use of education -Tv should be repackaged to make it accessible to everyone.
- Increase in contact time and use of group discussion as a strategy should be checked as this could be a source of spike in Covid-19 cases and against the regulations put across by the Ministry of Health to cartel the disease.

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