

Effects and implication of corona virus (covid 19) on learners' education participation in public primary schools, a case study of meru south sub county of Kenya

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Abstract

The study aimed at identifying and establishing the effects and implication of coronavirus (COVID 19) on learners' education participation in public primary schools, with a case study of Meru South Sub County of Kenya. The study was guided by the following objectives; to establish the challenges facing learners during coronavirus dawn to dusk curfews, to identify the barriers associated with e-learning during coronavirus dawn to dusk curfews, and to explore the households experience with learners at homes during coronavirus dawn to dusk curfews in Meru South Sub County. The study applied the classical liberal theory of equal opportunity. The study employed mixed research methodology approaches. A total sample size of 80 participants was targeted and semi-structured interviews were used to collect data from 40 public primary school learners in class 7 and 8, 20 parents, and 20 teachers since all were at home during COVID19 lockdown. The study participants were selected using convenience sampling procedure. Quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) software version 21 and Microsoft's Excel. Qualitative data was organized thematically according to the research interview schedule and presented in narratives and direct quotes. The study findings revealed that the COVID-19 pandemic had a significant impact on education participation among learners, parents, and teachers. Based on the findings from the study, the parents and learners did not expect changes of that high magnitude and were not in line with expectations that the spread of COVID-19 would cause fear, anxiety, and other concerns among residents of Meru South Sub County. The majority of class 8 pupils feared that learning may be modified and the learning contents may come from different sources which may lead to mass failure in national examination hindering their education aspirations. Pupils who were confined at home with their parents due to COVID-19 felt more stressed and anxious about the opening date, as well as their future in education participation. The majority of pupils never listened to radio teaching although they had radios at home, while majority don't have computers, television sets, or laptops which affected pupils' participation in online learning. Some parents were forced to buy smart-phones which was not in their budget, so as to assist in e-learning introduced by the government. However, based on the findings, the study recommends that it would be advisable to increase the number of school counselors that will be able to offer relevant support in these circumstances. Also, small group tuition may be a sensible approach to help weaker and those from rural background students make academic progress more quickly.

Keywords: COVID19 effects, Implications, on learners, on e-learning, on household and education participation

1. Introduction

The issues of education access, retention and completion have dominated world forums and conferences on education due to the fact that education is considered a basic human right (UNESCO, 2020) [33]. Education is recognized as a key element to all human development endeavors worldwide as it is viewed as the primary means of developing knowledge and skills and in shaping young people's life experiences. Nevertheless, since the discovery of COVID 19 in December 2019 in Wuhan, China (WHO, 2019), most governments had temporarily closed educational institutions in an attempt to contain the spread of COVID-19 (World Bank, 2020) [37], the outbreak of the novel coronavirus pandemic globally affected education systems leading to partial or total closures of schools, universities and colleges in many countries (Mustafa, 2020) [24]. The COVID-19 outbreak affected many aspects of life and human activities globally. As exclaimed and insisted by Areba (2020) [5] Asey (2020) [6] Christakis (2020) [9] Riechi (2020) [28], the worst hit sector in the whole world by novel coronavirus was education sector (Christakis, 2020) [9] since, as of July 2020, approximately 1.725 billion learners were affected

due to school closures in response to the novel coronavirus pandemic.

As of March 2020, (UNICEF, 2020) [34] indicated that over 106 countries globally were implementing national wide closures, while 55 others were implementing local closure which correctly affected education participation of about 98.6 percent of worldwide students population. The global education policymakers were at a dilemma between closing schools to reduce contact and saving lives, and keeping them open to allow workers to work and maintaining the economy (UNECA, 2020) [32]. Many countries in Europe such as Britain, Spain, France, Northlands and Italy among others were seriously affected by COVID 19 and opted for total closed down or total closure of schools (UNECA, 2020; Christakis, 2020; Riechi, 2020) [32, 9, 28]. In Africa, Ethiopia Egypt, Ghana, Nigria, South Africa, Zambia and Kenya were the first countries to close all schools and issued a ban on all public gatherings (Gupta & Goplani; 2020; Riechi, 2020; Abidjan, 2020; Riechi, 2020; Guchu, 2020) [15, 28, 2, 14]. Although this is not the first time the world has experienced pandemics, the current crisis is a big challenge because it has forced the closure of schools

globally (Rosenwald, 2020; Areba, 2020; Aseey, 2020) ^[29, 5, 6].

In Kenya, with the emergence of novel coronavirus (COVID19) the governments made urgent nation-wide decrees and decisions, among them the closure of all public and private schools and learning institutions following the COVID-19 pandemic, as part of response to this crisis (GOK, 2020; Riechi, 2020; Guchu, 2020) ^[28, 14]. The government deployed a multi -approach strategy, including the use of radio and television broadcasts and digital tools to ensure that learning continues with minimum disruption after the shutdown of schools and learning institutions. In Kenya, schools were closed in mid-February and were to remain closed till further directive were issued by the government a measure aimed at preventing the spread of corona virus (GOK, 2020).

On the effects and the impact of COVID19, some scholars have looked at novel coronavirus from different perspective. Abidjan (2020) ^[2] study on lockdown in Africa, indicated that many countries Africa opted for remote schooling, while Aseey (2020) ^[6] study was on COVID-19 and remote learning in Kenya. Riechi (2020) ^[28] study was on novel coronavirus and early childhood education in Kenya, Guchu (2020) ^[14] study was on education in a time of novel coronavirus and Areba (2020) ^[5] COVID-19 pandemic impact on Kenyan education sector. Nevertheless, majority of these studies were more concerned with the effects and impact of e-learning, although Areba (2020) ^[5] tried to expound on deferent sectors siting challenges witnessed due to school closer and stay at home lockdown. However, most studies did not provided concrete evidence on post COVID19 pandemic and future implications in regards to the re-opening a midst education participation. Thus, to fill the existing gap of knowledge in regards to the effects and future implications of education participation post novel coronavirus period. The study aimed at establishing the effects and future implication of COVID 19 on education participation in a smaller scope area of Meru South Sub County of Kenya.

1.2 Problem statement

Global efforts to prevent the escalation and spread of COVID-19 through interventions and preventative measures such as social-distancing and self-isolations lead to widespread closures of primary schools, secondary and many tertiary institutions of higher learning in over 190 countries worldwide (UNESCO,2020; UNECA,2020) ^[33, 32]. COVID-19 pandemic has led to severe short-term disruption of schooling which is felt by many families around the world. In many parts of the world where COVID-19 has been reported, home schooling became the new normal, while it affected parents and learners social and productivity. Notable is that schools closure tend to occur concurrently with other interventions, thus it is difficult to ascertain the specific impact of schools closure in future, while reopening date for schools in Kenya is still not certain. On another note, the Kenyan government directed teaching online during the pandemic period. Online teaching was untested in Kenya which made the stakeholders in education to question its effect due to different social-economic setups of the communities. It is imperative to note that these interruptions may not be short-term issue, but can have long-term consequences for the affected learners in

which most likely will increase inequality in education participation countrywide. Notably, various scholars such as Abidjan (2020) Aseey (2020) ^[6] Riechi (2020) ^[28] Guchu, (2020) ^[14] and Areba (2020) ^[5] have tried to study the effects and impact COVID 19, but none has covered on the effects of COVID19 in relation to current and future implications of the pandemic on education participation. Thus, this paper sought to establish the effects and implications of corona virus (COVID 19) on education participation in Kenya in relation to learners, families, teachers and the future financial constraints at household level in Meru South Sub County of Kenya.

1.3 Objectives

1. To establish the challenges facing learners during novel coronavirus dawn to dusk curfews in Meru South Sub County
2. To identify the barriers associated with e-learning during novel coronavirus dawn to dusk curfews in Meru South Sub County
3. To explore the households experience with learners during novel coronavirus dawn to dusk curfews in Meru South Sub County

Significance of the Study

The study will provide a clear picture on the effects of novel coronavirus on school learners participation as a result of close down of schools in Kenya. The study will help the education stakeholders and policy makers and parents to ascertain to the challenges of closed of schools to learners, parents, teachers and households in general. Curriculum developers will use this study to future make curriculum that can easily be accommodative during crises in future without compromising standards of education.

Limitations

The study was limited to the public primary school in Meru South Sub County. Another limitation was that the study covered five educational zones in the sub county targeting teachers who were at homes, learners and parents. The generalization of the finding was done with caution since the sub county is small and could not be representative enough to warrant a conclusive judgment of the effects due to different geo-social and economic disparities of Kenya. Assumption was made that the respondents provided true picture of the effects in Kenya.

2. Literature Review

2.1 Introduction

Globally many countries temporarily closed all educational institutions in an attempt to contain the spread of the COVID-19 pandemic (WHO, 2020; UNECA, 2020) ^[36, 32]. Some European and American countries implemented total closures (Aseey, 2020; Riechi, 2020; Guchu, 2020) ^[6, 28, 14]. In Africa as indicated by Mercy Corps (2020) ^[19], the national wide school closure in many African countries impacted over 85% of the Africa's student population. For instance, Morocco announced the closure of all schools and universities until an indefinite date as a precautionary measure against the novel coronavirus outbreak. Ethiopian government closed all schools across the country and banned all public gatherings and sports events. In Kenya the Minister for education extended closure of schools for an

indefinite period. These are just few examples of the many closures announced in almost all countries (Areba, 2020; Riechi, 2020; Guchu, 2020)^[5, 28, 14].

2.2. Effects of Novel Coronavirus Dawn to Dusk Curfews on Learning at Homes

The corona virus outbreak forced millions of students to study and learn from home (Gupta & Goplani, 2020; Guchu, 2020; Areba, 2020; Abidjan, 2020)^[15, 14, 5]. Learning from homes is not a new phenomenon because home is an epicenter of learning activities particularly on informal education (Shiundu & Omulando, 2012; Areba, 2020)^[5, 30]. Since the COVID19 was proclaimed as health hazard, learning from home becomes a new norm with many challenges for students in many countries, Kenya included (Guchu, 2020 and Areba, 2020)^[14, 5]. Shiundu, & Omulando (2012)^[30] Orodho, Waweru, Ndichu & Nthinguri (2013)^[27] observe that, schooling is about learning to become a good citizen and develop social skills, which makes it vital to stay connected with the school by all means. Shiundu, & Omulando (2012)^[30] insist that when learners are in school, they develop social-emotional skills and learn more about how to contribute to society as citizens as also insisted by (Miller & Seller, 2019)^[20].

The role of parents and family is extremely important and critical on keeping learners engaged during the COVID 19 period. This seems to prove opposite due to disruptions of families schedules (Gilbert, *et al.*, 2020)^[13] observe. Families tend to play the central role in education in providing major inputs into learning process, but with the current state of affair parents have double role of maintaining discipline and learning at the same time which is challenging as described by (Carlsson, Dahl, Öckert and Rooth, 2015). Bjorklund & Salvanes (2011); Carlsson *et al.*, (2015) and Mohammed (2020)^[22] insist that, while many parents round the world can successfully teach their children at home, this seem not to be generalizable over the whole population due to low parental literacy levels. According to UNESCO (2020)^[33], UNECA (2020)^[32]; Mustafa (2020)^[24]; Gupta & Goplani (2020)^[15] and Riechi (2020)^[28] millions of learners especially girls are out of school the longest period of disengagement and can result in a future implication of increased dropouts, while (Abiad, *et al.*, 2020)^[11] observes that most of them are on adolescent age which may lead to risk behaviours such as early pregnancies and early marriages. Thus, it was important to establish the parental challenges, parental role and their contribution to learners during the school closure period on learners education participation in Meru South Sub county.

2.3. E-Learning Challenges during Novel coronavirus Dawn to Dusk Curfews Period

In tandem with the technological revolution of the past decades, digital learning tools and formats (e-learning) has become an important component in many education curricula (Nasir, 2020)^[24]. However, an increasing number of e-learning tools has been developed and is now employed in various settings according to the subject and intention of the educational endeavor (Baker, 2020)^[7]. E-Learning also known as online learning is the web-based system of education which is a primarily for making information or knowledge available to learners or users regardless of geographical proximity through e-platforms (Downes, 2015

^[12]; Cavanaugh, 2018)^[8]. Since the outbreak of the COVID-19 virus, educational institutions globally have migrated from the traditional methods of learning to online learning (Ani and Ahiauzu, 2020; Murphy, 2020)^[4, 23].

In Sub-Saharan Africa, the outbreak of COVID-19 shifted the education system suddenly from the convectional classroom environment to electronic devices and online platform applications which were minimally used before (Mnyanyi & Mbvette 2020)^[21]. However, in Africa 89% of learner's do not have access to home computers and 82% do not have internet. Around 56 million learners live in places not served by mobile networks (Areba 2020 and Abidjan, 2020)^[5, 2] as per UNESCO report. But the absence of a robust online learning platform in many African countries made the continuity of education very difficult (Gilbert, *et al.*, 2020; Abidjan, 2020 and Baker, 2020)^[13, 2, 7].

In Kenya the response to COVID-19 lockdown, the government of Kenya through Kenya Institute of Curriculum Development (KICD, 2020) stepped up measures to facilitate learning through different platforms such as the Kenya Education Cloud, TV, radio, ed-tech apps, and mobile phones (Nasir, 2020)^[24]. However, although e-learning is a phenomenal concept, its adoption is not without limitations in Kenya due to lack of infrastructure (Gilbert, *et al.*, 2020; Noor-UI-Amin, 2020; Nasir, 2020)^[13, 24]. Individual "readiness" seems to be compromised on the successful e-learning applications in education due to geographical location, access to internet, radio waves among other constraints. Thus, the current study will try to establish the availability and accessibility of e – lerning platform and application during the COVID 19 in Meru South sub county

There is a considerable body of evidence such as (Miller & Seller, 2019 Gilbert, *et al.*, 2020; Abidjan, 2020 and Baker, 2020)^[20, 13, 2] which suggest that different teaching delivery styles can have varying degree of success depending on teaching delivery mode. In relation to online teaching, some studies indicate that this medium of delivery has a positive impact on education participation, for example, (Orodho, *et al.*, 2013)^[27]. Other studies however, find that greater online teaching has a negative impact on education participation due to availability and accessibility of e – lerning (Cerasoli *et al.* 2014). In a similar vein, Johnson (2005) observed that online teaching strategies have negative impact on education participation. Nevertheless, it was imperative to establish whether learners in public primary schools in Meru South Sub County adopted, accessed and applied e-learning (digs-school) during the pandemic period with such extra stress placed on families compounded with financial burden to some parent's especially in rural areas such as Meru South Sub County in Kenya.

2.4. Households Experience with Learners during Novel coronavirus Dawn to Dusk Curfews

The social-economic impact of the COVID-19 epidemic operates through two distinct channels (World Bank, 2020)^[37]. First are the direct and indirect effects of the sickness, which results from when an income-earner in the household falls ill, the ratio of active members to dependents falls and financial falls (Baker, 2020)^[7]. The effects may be compounded by lost earnings and taking care of the ill family member, or funeral costs upon death (Guchu, 2020; Areba, 2020 and Abidjan, 2020)^[14, 5, 2]. Poor health and

limited resilience capacities can create multiplier effects. Thus, the novel coronavirus is and will be another source of impoverishment and reinforce existing factors, in turn limiting the ability of vulnerable households to escape from and stay out of poverty (Areba, 2020 and Riechi, 2020) ^[5, 28]. Sub-Saharan Africa, just like other COVID-19 affected parts of the globe experienced temporarily closure of schools and other learning institutions to mitigate the spread of the outbreak (Gilbert, *et al.*, 2020; Abidjan, 2020 and Baker, 2020) ^[13, 2, 7]. School closures impeded learning and disproportionately affected disadvantaged children in many parts of Africa (Ogunode, 2020) ^[26]. According to Ogunode (2020) ^[26] schools closures during the 2014–16 Ebola epidemic in Congo DRC increased dropouts, child labour, violence against children, teen pregnancies, and persisting socioeconomic and gender disparities. In a related study by Ani & Ahiauzu (2020) ^[4] indicated that when schools are closed, children's mental health issues might be exacerbated by the lack of peer support and alternatives for mitigation of risks. Such negative effects on health are likely to be worse when children are confined to their homes without outdoor activities and interaction with same aged friends during the outbreak (Ani & Ahiauzu, 2020 and Asee, 2020; Asee, 2020; Baker, 2020) ^[4, 6, 7]. Thus, there are reasons to be concerned because prolonged school closure and home confinement during a disease outbreak might have negative effects on children's physical and mental health which the current study would wish to en-wreath if it is happening in Meru South Sub County.

On the onset of Kenya during COVID19, Guchu (2020) ^[14] observed that Kenya faced one of the most challenging years when it comes to food security in regard to COVID19 lockdown. However, even before the COVID-19 pandemic knocked on its door, Kenya had faced a devastating desert locust invasion (FAO, 2020 and World Bank, 2020) ^[37]. This was in the context of first case of COVID-19 in March 2020. Areba (2020) ^[5]; Gilbert, *et al.*, (2020) ^[13]; Nasir (2020) ^[24]; Noor-Ul-Amin (2020) and Mnyanyi & Mbwette (2020) ^[21] in their studies on the effects of lockdown and schools closure during COVID-19 insisted that, proposed and implemented schools closure in both rural and urban areas compounded with restricted movements has acute challenges in homesteads. They further found out that during curfews, lockdowns and restricted movements which confined learners in the homes environments and gave learners ample time and exposure for drug and substance abuse and premature sex (UNESCO, 2020b) ^[33]. Recent media reports (GOK, 2020) citing health data from the government have shown an increase in teenage pregnancies correlating with school closures. Other reports indicate that poor pastoralist communities are offering their children up for early marriages to richer families in order to receive financial assistance, thereby jeopardizing the education of many young girls. Young adolescent boys are also reported to be engaging in crime in the wake of the extended school closures (GOK, 2020). As such it was important to establish education participation of both girls and boys due to novel coronavirus

2.5 Theoretical Framework

The study was guided by the Classical Liberal Theory of Equal Opportunity advanced by Horace Mann (1796). According to Harma (2009), liberalism is a policy that

considers individual liberty and equality as the most important goals; it emphasizes individual rights and equality of opportunity. Liberal theories support provision of basic rights to all and seek to avoid discriminating (Kerbow & Bell, 2013). Equal opportunity is a stipulation that all people need to be treated the same, unhampered by artificial barriers or prejudices except when a particular distinction is explicitly justified. Social, economic and environmental factors such as family income level, parents' level of education, adequacy of learning and teaching materials or resources and occupation, all influence the quality of education which would influence learner's education participation. According to this theory, education access and participation should only be determined by the individual's merit and ability, not their social, economic and environmental background. This theory is relevant to this study as it implies that all barriers that influence learners' participation in education in terms of participation during and after COVID 19 pandemic should be removed. This theory was used to establish the effects and implication of COVID 19 on education participation in public primary schools in Meru South Sub County of Kenya

3. Methodology

In investigating the phenomenon at hand, the study applied the mixed research methodology which incorporates both qualitative and quantitative approach (Creswell, 2014; Kasomo, 2017) ^[18]. By employing mixed research methodology, the study got the experiences, perceptions, feelings and thoughts of participants on the effects and future implications of COVID 19 on education participation. The researcher employed simple random sampling and convenience sampling procedure to get 80 participants. The study applied the interview schedule and questionnaire for data collection. Corrected data was transcribed and analyzed using constant appropriate qualitative data analysis techniques. Both descriptive and inferential statistics were used in the analysis of the data using WPS fashion 16 computer package. Inferential statistics included frequencies from which percentages were derived. Data was presented in form of frequencies, tables and in percentages. All forms of discrepancies and inconsistencies were discussed and harmonized. This was done to increase the validity and reliability of the data.

4. Results

4.1 Response Rate

Eighty respondents were sampled and a response rate of N=80 (100%) was achieved. This was made possible by the fact that most rural people were at home during the dawn to dusk curfews which made the accessibility of the respondents and considered satisfactory to make conclusions for the study. According to Figure 4.1, Out of 40 learners who responded, N=21 (53%) were female, while male response was N=19 (47%). On other hand majority of parents respondents were female N=37 (62%). The high number of female respondents was attributed to the fact that, the study was conducted during the dawn to dusk curfews and general movement of hand impact on women more than men. The other factor was that the study was done in the rural setting and most of women were at home during the study which made their accessibility easier than that of men who are not at homes in most of time. The distribution

according to gender response has been presented in the figure 4.1 below:

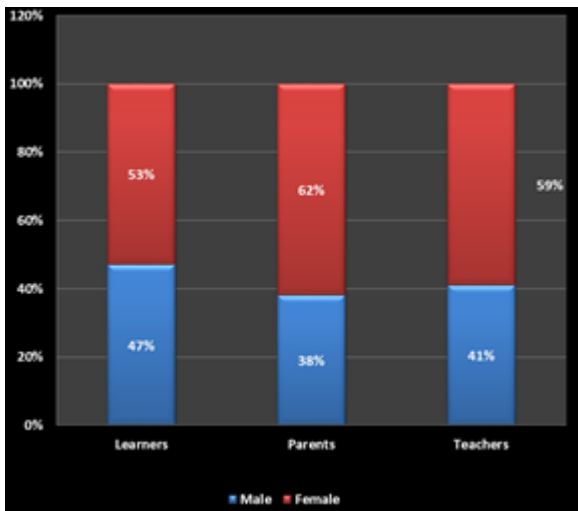


Fig 1: Response Rate

According to Figure 4.2, a sample size of N= 40 learners were selected using simple random sampling procedure. The study sample was N=20 class 7 and N=20 class 8 learners. They were targeted because they are in good position to answer the questions in the interview schedule in relation to COVID 19. However, the class 8 learners response rate was N= 22(55%) and class 7 was N=18 (45%). Majority of both classes respondents were female, in class 8 at 51% and in class 7 respondents were at 53%. This indicated that, during the curfew period girls were more at home than boys.

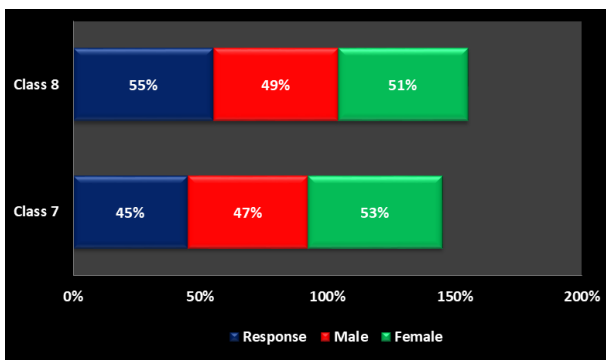


Fig 2: Learners Response Rate N=60

4.2 Challenges facing learners during novel coronavirus schools’ closure

The challenges facing learners during novel coronavirus lockdown was gathered using an interview schedule.

This was explained by learners interviewed who gave the statements below;

One learner in class 8 feared that learning may be modified to suit different learning styles and the learning contents may come from different sources which may lead to mass failure in national examination hindering their education aspirations. Another class eight boy said that he was waiting to undergo the circumcision rite of passage so as to go to secondary school which is disrupted.

On the time the learners spend on studying at homes, most of respondents strongly agreed that they spent less time studying at home than when they were in school.

Five class 8 learners from Igamatudu location, indicated that they experienced stress due to adjustment from school to learning at home because there were no interactions with other students during COVID 19 dawn to dusk curfew.

One class 8 learner also indicated that they were putting a lot of effort and were able to learn effectively from home since they did not know when national examination will be called.

Another question was whether they understood the formulas and other subject’s concepts without assistance of teachers. The study established that majority of respondents did not understand the concepts as compared to learning in class or when they got assistance from teacher which would affect their education participation.

One class 7 learners said that she has to go around looking for secondary school students to assist her with mathematics.

One class 8 learner indicated that he doesn’t know what will happen if the exam is called today for he is behind in math’s since he is poor in mathematics.

4.3 Barriers of E-Learning during Dawn to Dusk Curfews on Learners

The participants were requested whether they have the following gadgets at homes and the findings were tabulated quantitatively as follows in figure 4.3.

Figure 4.3 indicated that 16% of class 7 learners had radio and 14% of class 8 learners had radios, while 70% don’t t have radios. Also, the study established that 26% of class 7 learners had television set at home and 31% of class 8 learners had television set at home, while 43% don’t have television sets at home. On whether class 7 learners had a laptop at home 7% had laptops and 9% of class 8 had laptops at home, while 85% didn’t have laptops at home. Similarly only 2% of class 7 respondents had desktop computers at home and 9% of class 8 learners had desktop computers set at home, while 94% ddidn’t have. As indicated by 38% of class 7 learners, they have access to smart phones at home and 33% of class 8 learners had access to smart phones at home, while 29% don’t have access to smart phones at home. On whether learners have access to internet connectivity at homes, 18% of class 7 had access and 23% of class 8 had access to internet connectivity, while 59% didn’t have internet connectivity. In Kenya 89% of leaner’s do not have access to home computers and 82% do not have internet (Areba 2020 and Abidjan, 2020) [5, 2].

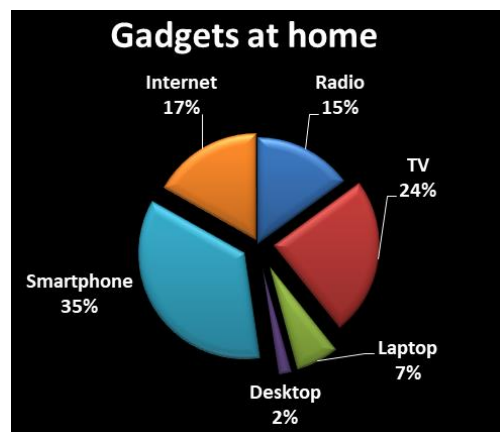


Fig 3: E-learning Gadgets at Home

Learners were requested to state whether they know the exact time TV and radio learning are on air, and the following quantitative findings are shown in figure 4.4. As indicated majority of learners 45% were not aware of the time radio and television learning was broadcasted in the TV and radios stations. Only 39% of students were aware of the time radio and television learning was broadcasted in the TV and radios stations. However, 16% were not sure of the time. This indicated that TV and radio teaching was only benefiting a small percentage of learners according to the findings. The utilization of state-of-the-art technologies does not guarantee that e-learning will result in expected benefits in Meru South Sub County, as also indicated by (Gilbert, *et al.*, 2020; Noor-UI-Amin, 2020; Nasir, 2020)^[13]. Also notable from the study is that, in poorer households of Meru South Sub County, many children didn't have desks, books, internet connectivity, a computer, or parents who can take the role of homeschooling. Despite the best efforts of schools and parents there will be learning losses for almost all learners in public primary schools in Meru South Sub County and may worsen educational participation for the poor rural focus.

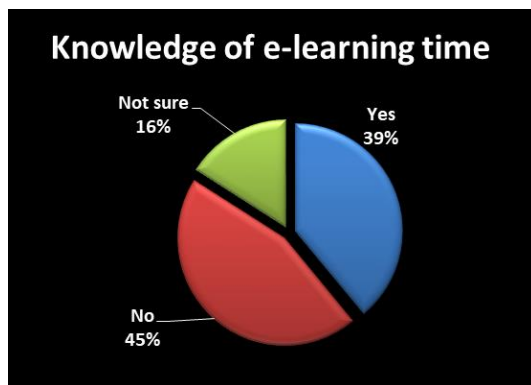


Fig 4: Knowledge of e-Learning time

4.4 The households experience with learners during novel coronavirus down to dusk curfew

During COVID 19 dawn to dusk curfews, perhaps to the disappointment of some, children have not generally been sent home to play. However, the idea was that they continue their education at home, in the hope of not missing out too much. Parents being the prime drivers of learning during the lockdown, even in conjunction with online materials, are a different question; and while many parents do successfully well with their children at home, this seems unlikely to be generalised over the whole population of Meru South Sub County.

As indicated by parent interviewed at Chuka town,

I do not think I will be able to afford the expenditure of sending my children to school because my business has been affected by COVID 19 period. Most probably they may stay at home for some times before I recover.

Another parent said that he doesn't know what will happen if the learners continue to stay at home for a longer period due to COVID19.

Challenges in regards to nutrition and food insecurity were too dire during the pandemic period and stipulated to be very serious among families after the COVID-19.

Another parent said that his monthly budget has been seriously affected because all children are at home and they

are all wise with a plate and spoon eating.....

In the absence of school meals, many children from unprivileged background were at risk of eating only unhealthy food, or even at risk of hunger. In fact, schools play a key role in the nutrition of students from poor families as indicated (Ogunode, 2020)^[26].

5. Discussion

The findings of this study confirms that there were effects and implications of coronavirus (COVID 19) on education participation in Kenya in relation to learners, families, and teachers with the future financial constraints at household levels in Meru South Sub County. Novel coronavirus curfews and down to dusk as new normal created changes in education sector and influenced a number of concerns for children, parents, and teachers in Meru South. The parents and learners did not expect changes of that high magnitude and were not in line with expectations that the spread of COVID-19 would cause fear, anxiety, and other concerns among residents of Meru South Sub County. The study finding concurred with Miller & Sellar (2019)^[20] who had noted that the current expansion in home schooling parents and learners would take it positively, but that short period learners missed school had consequences for skill growth. Some parents were optimistic that, given that there is the possibility that educational institutions may not be able to operate fully after COVID 19, or the whole of next academic year, they indicated it may influence or affect education participation for the future of their children. Some students demonstrated a negative impact of school absenteeism and truancy on student performance.

The study also established that, learners who were confined at home with their parents due to COVID-19 felt more stressed and anxious of the opening date, as well as their future in education participation. Christakis (2020)^[9] showed that learners who were isolated or quarantined during pandemic diseases are more likely to suffer from acute stress disorder, adjustment disorder, and grief. Such adverse psychological factors may in turn have a detrimental effect on learning future. It was well exhibited that the school environment influenced achievement through peer effects. Also noticed was that parents from different social-economic backgrounds had different ability (in terms of both cognitive and non-cognitive skills) and time availability to support their children in their learning process at home during the novel coronavirus curfews and down to dusk lockdown.

On e-learning during COVID 19 down to dusk lockdown and curfews period, the study established a considerable social-economic inequalities on learners' access to digital technologies at home. Pupils from higher social-economic status mostly in towns were significantly more likely to have a laptop or a computer at home than those from lower social-economic status in the rural areas of Meru South, while only 35% of learners had access to smart-phone and 15% and 24% had access to radio and television respectively. Also notable was that only 39% knew when radio and television lesson were on air. Majority of learner indicated that they never listened to radio teaching although they have a radio at home, while some parents don't have know-how on use of a computer since they don't have one. It was observed that no one cared at all whether there was radio or television learning because household chores were

more important to parents than those live broadcasts. While e-learning was necessary during COVID19 period and after, e-learning will not replace regular school. Despite the best efforts of schools and parents there will be learning loss for almost all learners in public primary schools in Meru South Sub County and may worsen educational participation for the poor rural focus.

During COVID 19 dawn to dusk curfews, perhaps most pupils were not disappointed because they had enough time at home to play. However, some felt that in their continued stay at home, they were not losing out too much. However, the lockdown expenditures were too high for parents with learners at home because business had been affected by COVID 19 period. As indicated majority of parent had no idea of what would happen if the learners continue to stay at home for a longer period due to COVID19. Many parents indicated that children were not learning, they were just playing at home waiting for the reopening to continue with their studies. Challenges in regards to nutrition and food insecurity are bound to be dire.

Some learners spent most of their time doing manual jobs for pay. Parents were also worried that some boys may no longer return to school, because they would prefer to work for pay or help their parents cultivate so they can have food. One parent stated that, his ability to finance school related expenditure such as school kits, meals, learning materials will be a challenges since the learners stay at home have disrupted the financial plans. Many parents may be reluctant to send back their children to schools/colleges suddenly after the end of lockdown. Some poor family parents who have lost their livelihood during the pandemic may not be able to afford the expenditure to send their children to institutions. This may lead to home education for another few months.

6. Conclusion and Recommendations

To sum up, based on the existing literature and recent available data sets, three main conclusions seem to emerge on the possible impact of COVID-19 on education participation. First, during this emergency period of COVID-19, inequality in social-emotional skills may increase. Children from lower socio-economic status are more likely to be exposed to a stressful home environment than their peers from higher socio-economic status. Additionally, parents from more advantaged backgrounds may be better equipped in terms of socio- emotional skills to handle problems emerging during a long confinement period. Secondly, the widening social gap in both cognitive and socio-emotional skills caused by COVID-19 may have implications not only in the short-term, but also in the long-term. This increased inequality may persist or even grow over time, having consequences on later educational participation as well as future performance. Despite the widespread move to online teaching, student progress will not simply be the same as if schools were open. However, it seems safe to argue that online learning is not likely to be very ineffective for primary school pupils, unless it is carefully designed to meet the needs and the characteristics of young children.

Students, especially those from less advantaged backgrounds, those who were struggling academically even before the COVID-19 crisis, and those who lost motivation during the lockdown, will have to make up for the learning

loss they experienced. Thus, standardised diagnostic shall be an important tool in assessing students' knowledge level in the relevant areas, and hence their need for meaningful and efficient remedial instruction. Also small group tuition may be a sensible approach to help weaker and those from rural background students make academic progress more quickly. While small group tuition would be beneficial, it is unlikely that a single catch-up approach will be sufficient to make up for the missed learning opportunities more disadvantaged students are likely to have experienced due to the switch from offline to online learning.

At the same time, it is important to provide students with emotional support. As argued earlier in the report, many students are likely to suffer from stress following COVID-19. In light of this, it would be advisable to increase the number of school counsellors that will be able to offer relevant support in these circumstances. Especially students from unprivileged backgrounds may find it hard to go back to school after a long absence from it. Policies designed to reduce early school leaving need, therefore, to be strengthened and monitored. For instance, since some students from disadvantaged families may be tempted to drop out of school if one or both of their parents lose their job because of the COVID-19 crisis, financial incentives such as scholarships, cash payments, Vouchers-could be offered to these families in an attempt to avoid this. This type of support could be organized when students come back to school. However, given the uncertainty surrounding next school year and the possibility of a second wave of COVID-19 epidemic, it is advisable to put in place both online and offline plans to support students.

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