



School Leaders' Perception of COVID-19 and Learning Management System: Implication for teaching and learning in public schools in Lagos

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ABSTRACT

This study examines the perception of school leaders on COVID-19 and Learning Management Systems (LMS) and its implications on education in public schools in Lagos State. The target population was school leaders from primary, secondary, and tertiary schools. The study employs the use of survey research design through the administration of structured questionnaire on Google forms targeted at school leaders as respondents and it was posted on their Whatsapp platform for over three months as a data collection strategy. Data generated from the study were analysed using descriptive statistics through the use of tables, simple percentages, and bar charts. The findings reveal that some of the respondents believed that COVID-19 was a punishment from God, while to others it is an Asian disease while some had a notion that it was targeted at developing countries. In addition, that the pandemic has caused a serious setback to teaching and learning while some saw it as a positive development, in that it brought new methods of teaching and learning and made students be more independent of teachers, and above all, brought governmental attention to education. It can therefore be concluded that COVID-19 has negatively impacted teaching and learning from the traditional method to the new normal and has brought new innovation and techniques in teaching and learning. It also advocates for the regular training and retraining of teachers to enhance LMS. It recommends an increase in governmental subsidy on education as a potent strategy to sustain LMS.

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INTRODUCTION

In early December 2019, the world woke up to the news of an outbreak of a virus in Wuhan, the Hubei province in China which has the risk of a pandemic due to its rapid spread. Zhou, Yang, Wang et al (2020) noted that after virus identification and isolation, the pathogen of this virus was originally called the 2019 novel coronavirus (2019-NCOV). Similarly, the World Health Organisation (WHO), describe this disease as severe acute respiratory syndrome coronavirus 2 (SARS-COV-2) and by 30th January, the WHO declared COVID-19 a Public Health Emergency of international concern. It was compared with the SARS-COV that caused an outbreak of SARS in 2003. However, SARS-COV-2 has a stronger transmission capacity

based on confirmed cases thus makes COVID-19 prevention and control extremely serious. Huang, Wang, Li, Ren, Zhao, Hu, *et al* (2020) informed that the clinical manifestations of COVID-19 are dominated by respiratory symptoms, as some patients have severe cardiovascular damage.

To reduce the spread of the pandemic, there was an outline by WHO on public health and social measures expected to be undertaken by individuals, institutions, communities at national and international level. These measures include individual and environmental measures, detecting and isolating cases, contact-tracing and quarantine. Other measures include social and physical mass gatherings, international travel restrictions and treatments of infected people.

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The WHO regularly informed people that the vaccines and specific medications to treat COVID-19 are not yet available in the market; but enjoin the public to adhere specifically to other public health and social measures as this play an essential role in reducing the number of infections and thus saving lives (WHO, 2020).

However, life in Nigeria is not different from what is experienced in other parts of the world as measures announced by the World Health Organisation were put in place in order to contain the virus from spreading. The Government also, took some precautionary measures by ordering the closure of schools in both public and private, religious institutions, markets and all other non-essential services. In addition, the Government advised its workers from level 1-14 to stay at home while level 15 and above were encouraged to report for work. As the covid-19 index continue to rise, the Nigerian President in a broadcast to the nation on Friday, 27th March 2020, declared a total lockdown on Lagos, Ogun States and Federal Capital Territory Abuja, for an initial 2weeks which commenced from 11pm on the 30th March 2020 which was later extended for another two weeks. All other states in the federation also took some precautionary measures, by closing their borders with other states, closure of schools, businesses and encouraging social and physical distancing. Similarly, there is a daily briefing by the Presidential Task force on Coronavirus while the Nigeria Centre for Disease Control sends daily messages to mobile users in the country on preventive measures or the protocols to be adhered to. However, the populace are not too happy with the Federal Government for not closing the airports on time as the initial cases reported were the returnees from abroad.

The outbreak of the pandemic in late 2019 unknown to many in this century, met the world unprepared and its effects has been phenomenon as it cuts across all sectors be it tourism, health, education, governance, social well-being and relationships and brought about the “new paradigm shift” or “the new normal” on how thing should be done. The pandemic affected the educational systems of developed and developing countries but felt more in developing countries as the closure of schools in many countries affected the school calendar

and access to education. The outbreak led to massive educational, social, economic and environmental challenges, such as the denial of the traditional face-to-face education, scarcity of resources, climate change, inequality, and an increase in death rate among others. Now, it is no more an aphorism that there is already a new educational paradigm and definitely a new model of teaching-learning settings and activities will emerge once COVID-19 has passed away.

The pandemic brought the digital divide as many schools and countries were caught off guard and not prepared for online teaching and learning and in Nigeria, only the private institutions have the capacity for online teaching. There is also the challenge in achieving the universal basic education when taken into consideration the out of school children which is estimated at 1.6bn during this pandemic. Similarly, the United Nations (UN) (2020) noted that the crisis of covid 19 on the educational sector has been unprecedented as it has disproportionately affected the poorer and most vulnerable and thus set back the clock on the attainment of international education goals. The study of Darling-Hammond (2020) highlighted the disparities among Americans in access to digital devices and the internet as a result of the pandemic. The study also reveal that during the schools closure, 15% of the households in the US and 35 percent of low-income households with school-age children did not have a high-speed internet connection at home. Similarly, nearly 2/3 of leaders in high-poverty districts in early April reported that a lack of basic technology was a ‘major’ problem. The Guardian news reports of 28th April 2020 with a caption “Digital divide isolates and endangers millions of UK poorest”. The report shows a stark digital divide where 1.9 million households did not have access to the internet while tens of millions of people rely on the on pay-as-you-go services to make phone calls or access healthcare, education and the benefits online.

Similarly, Harris and Jones (2020) noted that the impact of the pandemic on young people will be immeasurable, far reaching, devastating and potentially irreversible. According to the estimates of the World Bank the pandemic will push 49 million people into extreme poverty in 2020. As a result, the pandemic have made traditional

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teaching in schools to be paused and re-organised through the use of online teaching platforms. Similarly, it has made education to be re-crafted, re-designed and re-booted as a home based technology enabled online activity (Harris, 2020). Also, it has dramatically altered teaching and learning practice and shifted the core functions of schools and made school leaders to be pushed to the very limit. Thus, it changed the traditional form of leadership in schools as well as all the formal and informal movements in schools such as, the staff meetings, the daily morning assemblies, singings, and daily morning talks to student. In addition, due to the pandemic, social gatherings and relationships forged and leadership enacted vanished suddenly and it is no longer business as usual.

According to Harris (2020), education leaders and school leaders at all levels in the world, now practice their leadership through a two-dimensional space and now spend their time influencing and engaging with each other either by phone or laptop or an spending endless hour on Teams, Zoom, Google Meet, WhatsApp, or Telegram. The findings from Harris (2020) study reveal that the pandemic has dramatically shifted school leadership in the direction of distributed, collaborative and network practices. The pandemic has disrupted schools globally and every country of the world has experienced the hiatus in education and 1.6billion young people are out of school. In addition, Zhao (2020), noted that the pandemic have virtually made all schools to be paused and teaching re-organised in various ways and there has been an unprecedented damage to the educational system worldwide. The researches of Cam-Tu, Hoang, Van-Quan, Nguyen, Viet-Hung, Quynh- et al (2020) shows that teachers being the most intellectual resource of schools face financial, physical and mental struggles due to the impact of COVID-19. Similarly, Azorin (2020) informed that COVID-19 is a colossal “supernova” in human history because it interrupted human existence in every conceivable way (p.1). According to Harris and Jones (2020) the pandemic has brought about new leadership order in schools unknown to school leaders. It caught them unaware with no neither preparation nor development programmes, nor leadership standards. Also no inspection framework; no KPIs, no benchmarks, precedents, nor do blue

prints that could help school leaders navigate the pandemic in schools. However, many studies have been conducted to examine the impact of Covid-19 on higher institutions (Ogunode, Abigeal & Lydia, 2020; Jegede, 2020; Ogunode, 2020).

Similarly to Ogunode, et al (2020) covid 19 led to the disruption of academic calendars as most schools were shut down, reduction of international education due to border closures and cancellation of international flights and many conferences, workshops and seminar both local were either cancelled or shifted till 2021. Also, there is teaching and learning gap experienced due to the pandemic which led to loss of manpower in the educational institutions as well as budgetary cuts of higher education. Other researchers (Jegede, 2020; Ogunode, 2020) noted that online teaching and learning have come to stay as an alternative measures for conversational in class even for future occurrences of any pandemic. The authors noted further that the pandemic led to the suspension of face to face interactions in teaching and learning as well as internal and external examinations and extra-curriculum activities. Above all, there is a reduction of investments in education.

In a related study in Ghana, Owusu-Fordjour, Koomson and Hanson (2020) found that students are unable to study effectively from home thereby making the on-line system of learning very ineffective as majority of them are not used to it and the issue of low internet access. The study further reveals the incapability of parents in assisting their wards on how to access the on-line learning platform, nor supervise them effectively without complications. Similarly, the study of Wenju-Cao, Fang, Han, Xu, Dong and Zheng (2020) on the psychological impact of COVID-19 epidemic on college students in China reveals that there were great anxiety from the respondents as result of the pandemic which affects the economic daily life and academic activities. In addition the study of Ogunode, Abigeal and Lydia (2020) shows that covid-19 has a lot of impact on higher institutions as it led to disruption of academic calendars as most schools were shut down. There is also the reduction of international education due to border closures and cancellation of international flights and many conferences,

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workshops and seminar both local were either cancelled or shifted till 2021. Also, there is teaching and learning gap experienced due to the pandemic which led to loss of manpower in the educational institutions as well as budgetary cuts of higher education.

The study of Di Pietro, Biagi, Costa, Karpinski and Mazza (2020) reveal that students who were quarantined spent less time studying than students who were in school. Furthermore, many students who are confined to their homes due to COVID-19 may experience stress and anxiety, which may impair their ability to focus on their schoolwork. Furthermore, the closing of the physical school and the lack of in-person interaction could make students less externally motivated to engage in learning activities. The authors suggested that COVID-19 will not affect students equally, but may have a negative impact on both the cognitive and non-cognitive ability acquisition, and could have significant long-term effects in addition to short-term ones. The study of Di Pietro et al (2020) further reveal that the effect of COVID-19 and the shift to remote learning and teaching is projected to trigger greater disparities in cognitive abilities, but they may have a similar impact on students' emotional well-being and motivation. Indeed, students' isolation from their peers and teachers can lead to an unequal distribution of behavioral and psychological issues. Throughout the lockdown Students from less fortunate families are more likely to be subjected to a stressful home atmosphere during the lockdown (e.g. they are more likely to share a limited space and a limited number of digital devices with other family members). Furthermore, parents in these households are likely not in the best position to support their children in these situations, as they may be under financial and work security stress as a result of the COVID-19 crisis.

The cognitive and socio-emotional skills of children have been shown to be strong predictors of later outcomes in many studies. Students who lack these abilities have lower educational achievement and worse labor market opportunities, both in terms of jobs and pay rates. As a result, there is a possibility that, in the absence of adequate policy interventions, the COVID-19-induced short-term inequality could continue or even worsen over time, resulting in greater economic

disparity in the future (Di Pietro et al. 2020). Due to the uncertainty caused by the pandemic's sudden arrival, school administrators have had to make a dramatic change from traditional teaching and learning to emergent online teaching, which has forced them to confront important unknown problems in school management. Therefore, significant changes in learning and teaching habits are required of school leaders under the unpredictable circumstances created by the pandemic.

The 21st century is a knowledge economy of technological advancement where the world is connected by the internet and other technological interconnections for communications in all sphere of life, teaching and learning inclusive. As noted by Aljawarneh (2019) e-learning is a new form of learning that involves lower educational cost and most effective when compared with the traditional learning. It facilitates quick learning and rapid dissemination of new processes and techniques in a flash of light and not bound by any geographic challenges and changed the way of life of people, their thinking and how they work (Grabe and Grabe, 2007).. The internet as a communication superhighway has made the world a global village for easy and instant communication between individuals and groups through voice and video in any part of the world either by Skype, Zoom and Microsoft teams. Thus, Ghavifekr, Afshari and Amla (2012) enjoins schools and other educational institutions to consider the use of ICT integration in their teaching and learning in order to prepare students for the knowledge society. As a result, teachers as key players are expected to use ICT in their daily classrooms to prepare students for this digital age due to the capability of ICT in providing dynamic and proactive teaching-learning environment (Amseth & Hatlevik, 2012). The integration of ICT helps to improve and increase the quality, accessibility and cost-efficiency of the delivery of instruction to students. It also makes to them benefit from networking the learning communities in order to face the challenges of current globalization (Albirini, 2006).

This made Jamieson-Procter, et al. (2013) to assert that the use of technology in education contributes a lot in the pedagogical aspect with the support from ICT elements and

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the components will lead the effective learning. This supports the study of Ghavifekr and Rosdy (2015) that ICT integration has great effectiveness for both the teachers and students. Thus, the success of technology based teaching and learning is hinged on the preparations of teachers and well equipped ICT tools and facilities. As a result, teacher professional development trainings programmes play a key role in enhancing students' quality learning. However, integration of ICT in education is not a one-off thing but an ongoing and continuous step that fully support teaching and learning and information resources (Young, 2003). Therefore, E-learning is the use of ICT as well as interactive media in education. It has extensively affected pedagogy in daily classroom teaching and learning. Some of its uses include is that it provide the much needed help and complementary supports for both teachers and the students where it involves effective learning through computers to serve the purpose of learning aids (Jorge et al., 2003). Ghavifekr et al (2015) inform that ICT is not a replacing tool for quality teachers but rather it is considered as an add-on supplement needed for the better teaching and learning.

Similarly, Baek and Cheong (2005) informed that there are prospects of ubiquitous learning and raising usability of pervasive learning which thus provide opportunities for lifelong and continuous learning without any constraints due to time and space. According to Asabere (2013) there are opportunities for students to enjoy absolute flexibility, collaboration, freedom, right time learning and well-focused self-centered learning. In addition, it supports communication and increasing learner to learner and learner to teacher interactions through prompt feedbacks and monitoring of students work and progress in real time by the teacher and thereby gives students opportunities to make amendments to their work (Brown, 2005; Mahamad, Ibrahim, Foad & Taib, 2008). This is corroborated in the study of Lau, Yen, Neil, Li and Wah (2014) that a virtual learning classroom environment is made possible through E-learning technologies that supports teacher-student and student-student communications which enable material distributions and make students on-line assessment faster. This provides an

opportunity for students in charge over their learning and space. Lau et al noted further that the use of technologies in the classrooms offer students multiple media format to match their learning styles which enhance their learning effectiveness.

Therefore, one of the ICT tools use to help students become active learner is Learning Management Systems (LMS) (Mantoro, Utami, Dewanti, Yudhi & Ayu, 2017). Therefore, Sabharwal, Hossain, Chugh and Wells (2018) and Turnbull, Chugh and Luck (2019) describe LMS as the online learning technologies used for the creation, management and delivery of course material in a teaching and learning situation. The important role of LMS in enhancing and facilitating teaching and learning during the COVID-19 pandemic cannot be overemphasized. It enables the delivery of instructions and electronic resources to improve and augment student learning in a collaborative environment, but also allow instructors to focus on designing meaningful pedagogical activities (Kattoua, Al-Lozi, and Alrowwad, 2016) Chaw, L.Y & Tang C.H. (2018) inform that (LMSs) may provide learners with resources in various formats, such as videos, quizzes, and forum discussions to support their learning. These authors however noted that having access to an LMS does not necessarily mean that learning has occurred effectively. They went further to add and pose a puzzle that despite the usefulness of LMS, whether LMS can aid learners to learn effectively remains an interesting matter for course providers, vendors and learners to debate or investigate The study could be a wakeup call to policymakers, health authorities and stakeholders in the education sector to allocate enough resources to improve facilities in schools and in hospitals, to manage current and future occurrence of the pandemic.

Objectives of the Study

The main objective of this study is to examine the perception of school leaders towards COVID-19 and its impact on teaching and learning in Lagos State public schools. This study focused on the following specific objectives:

1. Determine how public school leaders' perceive the COVID-19 pandemic.

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2. Examine the implications of the COVID-19 pandemic on teaching and learning.
3. Determine the impact of the Learning Management System (LMS) on teaching and learning during the pandemic.
4. Examine the challenges of implementing LMS post-COVID-19 in public schools.
5. Identify strategies on how LMS could be sustained in public schools post COVID-19.

Research Questions

1. What are public school leaders' perceptions of the COVID-19 pandemic?
2. What are the implications of COVID-19 on teaching and learning?
3. What are the impacts of LMS on teaching and learning during COVID-19?
4. What are the challenges of implementing LMS post-COVID-19 in public schools?
5. What are the strategies of sustaining LMS in public schools post COVID-19?

METHODOLOGY

This study employed the descriptive survey design to examine school leaders' perception of COVID-19 in Lagos State public secondary schools. This will help to establish some characteristics of school leaders how they cope with the COVID-19 pandemic. In this study, data were collected through the filling of questionnaires on Google forms by teachers, lecturers and educational administrators. Google form is a cloud-based data management tool used for designing web-based questionnaires. It is free and available online and could be accessed anytime and anywhere in the world at participants' convenience. It has many options for capturing data from multiple answers such as multiple-choice questions, checkboxes, scale, grid and many more. This would enable the researcher to know the exact number of the questionnaire required to be collected and its' inbuilt option templates provides for giving anaesthetic look for the questionnaires (Raju & Harinarayana, 2016).

The use of Google form helped in the design and development of the structured and un-structured questionnaire and thus helped in no small measure in obtaining responses from respondents in a simpler manner during the

observance of the COVID-19 protocols. The pandemic increased the use of online platforms for teaching and learning, business and governance and thus made web-based tools like Google form became an instant and significant mode of data collection and analysis for research. The study of Lin and Wang (2015) shows the reliability of web-based surveys than face to face surveys, telephonic methods, and e-mail survey methods due to some inherent limitations such as high cost, wastage of papers, long travel and time consumption for both researchers and respondents. The generated Google forms link was sent to the various educational platforms of the participants via WhatsApp and also to their email contacts for wider participation for two months with instruction on the aims of the research and what is expected from the respondents.

The questionnaire meant for the participants was divided into three sections. The Section A sought information on the social and demographic characteristics of participants such as their age, gender, educational qualifications, rank, length of service and place of work while the section B elicited information on their perception concerning teaching and learning in the use of Learning Management systems before, during and post-COVID-19 and its effects on their health and relationships as well as the challenges encountered. Section C was designed to enable the participants to identify strategies for teaching and learning in post-COVID-19 in public schools in Lagos. Ethical consideration for the study was adhered to in conducting the research. The researchers informed the participants about the aims of the study and about data management and their expected role in the research which enabled them to give the researcher their informed consent. Above all, confidentiality was assured and the use of pseudonyms where necessary. Exactly 40 participants filled the questionnaire and about 30 per cent of them were females while 70 percent were males with their length of services ranging from 9 to 30years as school leaders. The educational qualifications of the participants consist of N.C.E (10%), BSc (43%), PGD (5%), MSc (50%) and PhD 18%). About 10% are primary school teachers, 68% are in secondary schools, while 23% are in tertiary institutions. In all, there were 9 Deputy Directors, 9 Director

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of Education/Principal, 2 Class teacher, 5 Education officers, 3 Asst. Lecturers, 1 Senior Lecturer, 1 CEO, 1 L1, 1 L3, 1 Vice Principal, 2 Ass. Prof, 5, others were (grade 12, 1, 10 and 2 retirees).

The study used descriptive statistics to answer research questions through the use of tables, simple percentage and bar-chart to

analyze the data gathered. It is hoped that this study could be a wakeup call to policymakers, health authorities and stakeholders in the education sector to allocate enough resources to improve facilities in schools and in hospitals, to manage the current and future occurrence of the pandemic.

RESEARCH FINDINGS

1. What are public school leaders' perceptions of COVID-19?

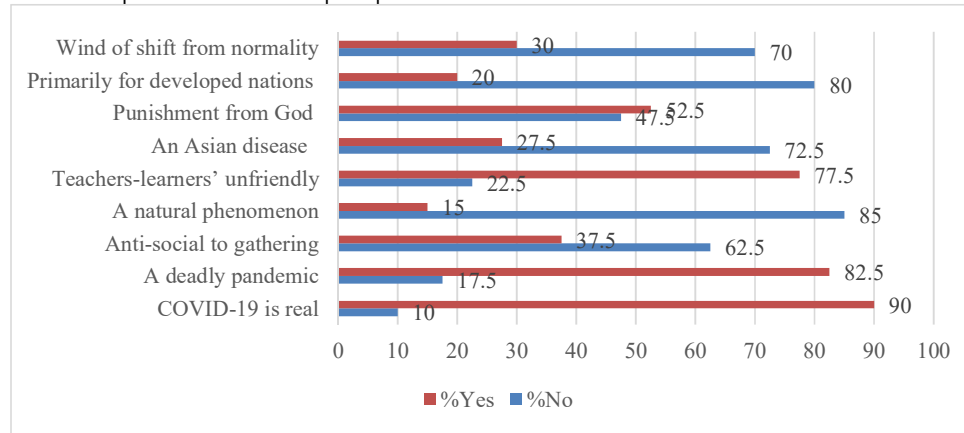


Fig 1: Public school leaders' perception of COVID-19

The results in Fig 1 revealed that apart from the 90% of the respondents who believed that COVID-19 is real, it was perceived by 82.5% as a deadly pandemic, and by 77.5% as unfriendly to teachers and students' activities. On the other hand, while 52.5% saw it as a punishment from God, 37.5% opined that it discouraged social

gathering, 30% supported that it is a wind of shift from normality, 27.5% saw it as an Asian disease, 20% had the notion that it was targeted at developed countries, while 15% believed that it was a natural phenomenon. What effect did all of these unwelcome developments cause on teaching and learning?

2. What are the implications of COVID-19 on teaching and learning?

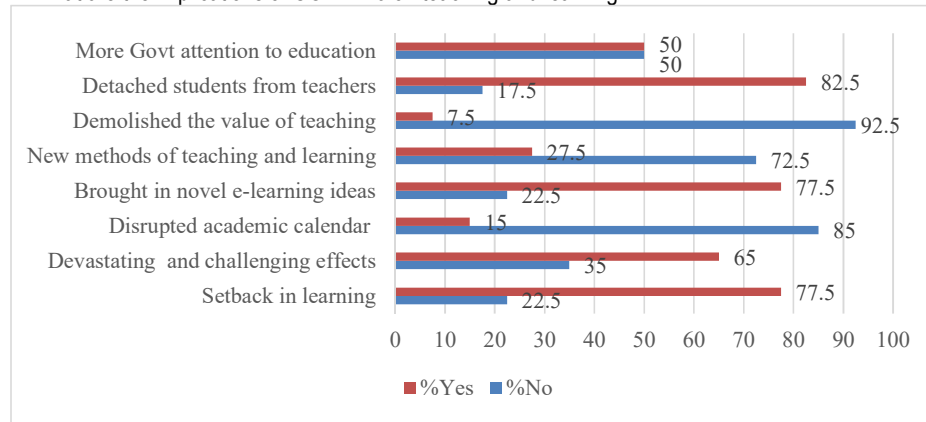


Fig 2. Implications of COVID-19 on teaching and learning

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From the outcome in Fig 2 it is obvious that while 77.5% of the participants believed that COVID-19 caused a serious setback to teach and learning, 65% agreed that it had devastating and challenging effects, but in contrast only 15% and 7.5% accepted that it was disruptive to academic calendar or de-

valued teaching activities. On a positive note, 50%, 77.5% and 82.5% believed that it brought new methods of teaching/learning, attracted more governmental attention to education and made students more independent of teachers respectively.

3. What are the impacts of LMS on teaching and learning during COVID-19?

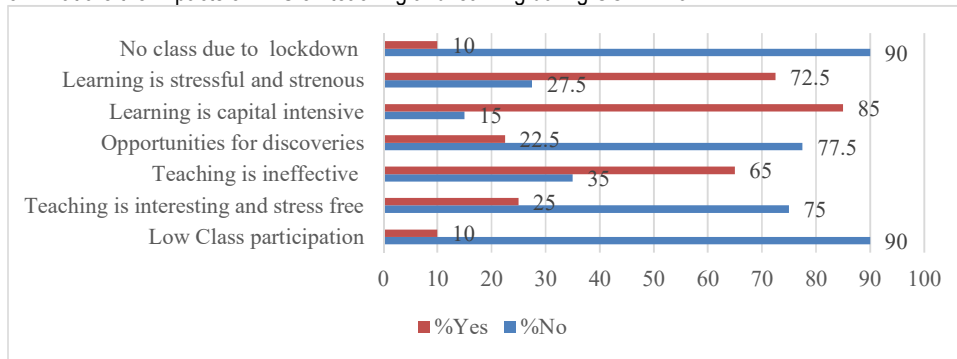


Fig 3. Impact of Learning Management System on teaching and learning

As seen in Fig 3, the 85% who believed that learning was capital intensive is in tandem with the fact that only 10% of the respondents in each case favoured low-class participation and no class attendance as occasioned by the lockdown. However, 72.5% agreed with stressful and strenuous learning is

also commensurate with the 25% who saw teaching and learning as interesting and stress-free. Notwithstanding, 65% believed that teaching was not effective because only 22.5% agreed that there were opportunities for personal discoveries.

4. What are the challenges of implementing LMS post-COVID-19 in public schools?

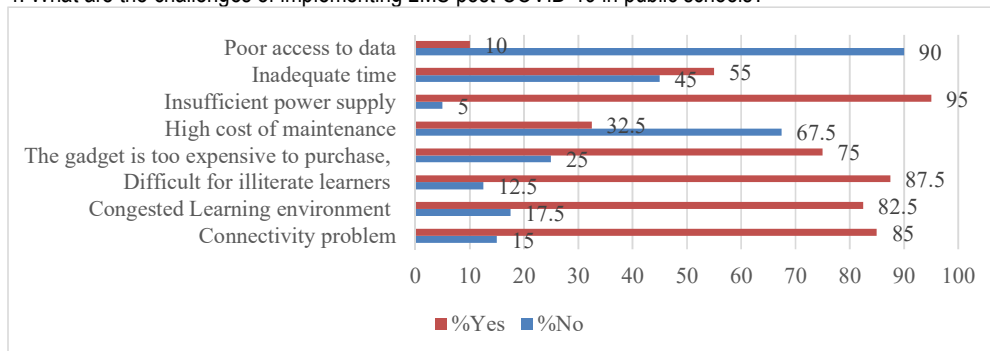


Fig 4. Challenges of implementing LMS post-COVID19 in schools

From Fig 4, the major barriers to implementing LMS post-COVID include: insufficient power supply (95%), cost ineffectiveness of the gadget (75%), learners' rate of illiteracy (87.5%), overcrowded

classroom (82.5%) and connectivity problem (85%). On the other hand, the minor challenges are poor access to data (10%), high cost of maintenance (32.5%) and inadequate timing (55%). Are these minor and major

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challenges to the implementation of LMS insurmountable? Could certain strategies be

adopted to permanently unravel and sustain the situation?

5. What are the strategies of sustaining LMS be in public schools post-COVID-19?

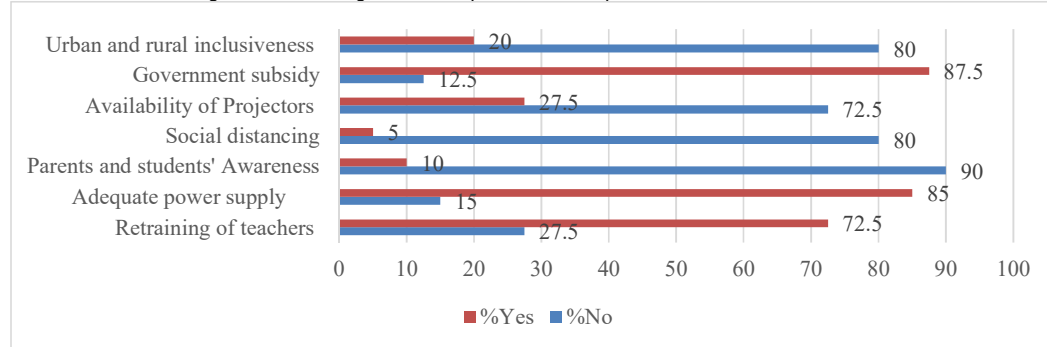


Fig 5. Strategies to sustained LMS in schools

The results in Fig 5 showed that with adequate measures put in place, there would be light at the end of the tunnel. About (87.5%) believe in Government subsidy on education as the most potent strategy to sustain the LMS program, (85%) perceive adequate supply of electricity as the next in the hierarchy, while (72.5%) believe in re-training of teachers. The least potent strategies include: provision of projectors (27.5%), urban-rural inclusiveness (20%), parents and students' awareness (10%) and social distancing (5%).

DISCUSSION OF FINDINGS

The outbreak of the COVID-19 pandemic led to massive educational, social, economic and environmental disruption in most countries of the world. This results in a new educational paradigm and model in the teaching and learning activities. The pandemic reveals the inequalities and disparities that exist between the rich and the poor in access to digital devices and the internet even in developed countries such as America and the UK (Darling-Hammond, 2020; The Guardian, 2020). This is in line with the United Nations (2020) report that the impact of the COVID-19 pandemic on the educational sector has been unprecedented and has disproportionately affected the poor more while Harris and Jones (2020) noted that it has immeasurable, far-reaching, devastating irreversible consequences on the youth. The above is in line with respondents' responses to their

perception of COVID-19 as real, deadly and unfriendly to teachers and students activities in schools. In addition, due to the religious nature of Nigerians, 52.5% of the respondents are of the view that COVID-19 is a punishment from God due to the sinful nature of man and mankind needs to pray to God for mercy to avert the doom as seen in Tanzania when the President led the country in prayers to God concerning the pandemic. Similarly, their varied responses show that the pandemic was made by the developed countries to reduce the population of developing countries, an allegation that is yet to be proven among others perception held by the respondents that it is an Asian disease and thus discouraging social gatherings amongst many others as seen in Figure one of this study.

In addition, respondents believed that the COVID-19 has a lot of implications on teaching and learning through the setbacks it caused which has devastating and challenging effects on stakeholders. Also that the pandemic made traditional face-to-face teaching in schools to be paused and re-organised through the use of LMS as online teaching platform. Also, it changed the traditional form of leadership in schools, the activities such as physical staff meeting, morning assemblies, daily morning talks to students and social gatherings vanished overnight to a "virtual relationship" through Zoom, Whatsapp, Telegram and so on. However, it brought new methods of teaching and learning and enables students to be more

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independent of teachers and can work remotely from home with their space and time.

Similarly, respondents believed that COVID-19 has a lot of implications on teaching and learning through the setbacks it caused which has devastating and challenging effects on stakeholders and has de-valued teaching activities but has brought innovation, methods and dimension to teaching and learning and thereby makes students learn more and be independent of their teachers. The impact of LMS on teaching and learning generated varied responses but the majority noted the capital intensive nature of learning; this resonates with the review of literature, due to high bandwidth cost or cell phone data or electricity as the case may be. In addition, 72.5 per cent of the respondents agreed with stressful and strenuous learning occasioned by the knowledge economy and the lockdown while 65 percent believed that teaching was not effective either due to low-class participation or internet penetration. However, 22.5 per cent of the respondents agreed that LMS provides opportunities for personal discoveries. Above all, study respondents highlight some barriers in implementing LMS such as insufficient power supply, connecting problems, learners' rate of illiteracy and the cost-effectiveness of the gadget.

CONCLUSION

The study examines the implications of school leaders' perception of COVID-19 and the use of LMS for teaching and learning in public schools in Lagos. This study reveals that school leaders perceived COVID-19 to be a punishment from God as well as a means of discouraging social gatherings. In addition, it is a means to reduce the population of developing countries. Furthermore, it caused a serious setback to teach and learning due to disruptions in the academic calendar, prolong closure of schools and thus devalued teaching activities. However, it brought about a new novel way of teaching and learning and made teaching to be stress-free and interesting but capital intensive in maintaining but provides opportunities for personal discoveries. Similarly, there are challenges in implementing LMS such as the high cost of data bundles and connectivity and, irregular power supply. Also, based on the new "normal" there should be conscious efforts in training and retraining of

teachers in line with the new technological advancements. Also, there should be an increase in governmental subsidy in education to sustain LMS.

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