The Impact of Corona-virus (COVID-19) on Secondary School Administration in Fako Division of the South West Region of Cameroon.

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Abstract
This study has been carried out to find out how secondary school principals in Fako Division of Cameroon responded to the challenges that were visited on the execution of their duties by the Covid-19 pandemic from March of 2020 to the end of the 2022 school year. The findings indicate that the requirements of online learning, double shift school system and the use of preventive measures to ensure sustained teaching and learning, all exerted undue pressures and adversely affected school administrators in the exercise of their responsibilities. Lack of adequate knowledge and skills in online supervision of instruction, shortage of teachers in running the double shift schooling and lack of adequate financial resources to manage the preventive measures stand out as the major challenges that faced these administrators.
Key words: Corona-virus (Covid-19), School Administration, Principals, Double shift schooling, Barrier measures.

Introduction

As the world has become a global village, what happens anywhere within this village affects all the inhabitants because of the interconnectedness, which characterizes the present human relationships within this global environment. The outbreak of Coronavirus (COVID-19) on the 31st December 2019 affected almost all aspect of life. It interrupted international travel, affected economic growth, and disrupted schooling globally. Cameroon being part of the globe, was not left out as Covid-19 had serious repercussions on schooling causing the Prime Minister on Cameroon Radio Television (CRTV) Radio Newscast of 17th March 2020, issued an order suspending schooling activities of a face-to-face nature. Teaching and learning was encouraged to continue using online and distance mode. This meant school administrators had to switch their mode of management to meet the needs of the situation. Though efforts to increase online teaching and learning were underway, they proved inadequate to the needs of the pandemic as attested by Azorin (2020) and Hargreaves & Fullan (2020). While the COVID -19 pandemic redefined learning as a remote, screen-based activity limiting most learners to on-line teacher support, Educational administrators working in these demanding and chaotic circumstances faced relentless pressures. The staff meetings and corridor chats with colleagues that made up a school day were gone. All those informal, important moments, where social relationships are built, and leadership acts enacted simply vanished overnight. School administrators were thus walking a tight robe especially as schools were asked to operate separate a double shift system from 7am to 1pm and 1:30pm to about 5pm and for each class to have a maximum of 50 children to ensure social distancing as noted by Netolicky (2020) that in a time of crisis, leaders must act swiftly and with foresight but also with careful consideration of options, consequences and side effects of actions taken.

Statement of the Problem

The aim of every educational system is to accomplish the school goals and objectives which are quality, efficiency and better performance each year and at the end of the schooling programme. Education administrators and in particular school leaders are charged with the responsibilities of ensuring the successful management of schools This can be achieved when administrators plan and ensure proper supervision according to laid down rules and regulation, coordinate educational activities through direct face-to-face and or virtual supervision, and do proper follow up of students effective teaching and effectively manage the financial resources placed at their disposal to this end. However, given the sudden thrust of the COVID 19 pandemic at the end of the second term of the 2020 academic year, aggravated by the lack of preparedness for such an eventuality, school administrators were required to demonstrate flexibility and resilience in the management of what remained of the school year to ensure that students completed their curricular requirements. They were equally challenged to plan and execute the subsequent academic year in compliance with preventive measures of COVID 19. This study therefore, sought to find out how school principals in Fako division of the South West Region of Cameroon steered their schools in the context of the unforeseen and unplanned health situation, the like of which had never been experienced in the global education system.

Research Questions

1. What was the impact of online learning on secondary school administration in Fako Division?

2. What was the impact of double shift system on secondary school administration in Fako Division?

3. What was the impact of the preventive measures of covid-19 on secondary school administration in Fako Division?

Literature Review

Coronavirus

Coronavirus is a contagious disease that first emerged in Wuhan, China in 2019. It was later coded "Covid-19 by the W.H.O which stands for Coronavirus Disease 2019. The Coronavirus outbreak remains one of the worst global pandemics for decades. The mortality rate soared and the easy of spread was upsetting. Research shows that older people and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer were more likely to develop serious illnesses from coronavirus (W.H.O 2020). Some of the symptoms of Coronavirus included sore throat, running noses, constant coughing, sneezing, breathing difficulty and fatigue. (Lippincott & Wilkins 2005).

Late in 2019, scientists started monitoring the outbreak of a new coronavirus, SARS-COV-2 which causes Covid-19. They first identified the virus in Wuhan, China. The virus spread rapidly around the world and the World Health organization (W.H.O) declared it a pandemic in March 2020 (W.H.O, 2020). According to the W.H.O (2020), and Salah et al. (2021), the virus was transmitted through direct contact with respiratory droplets of an infected person (generated through coughing and sneezing). Individuals could also be infected from touching surfaces contaminated with the virus and touching their face (e.g, eyes, nose, and mouth). The Covid-19 virus survived on surfaces for several hours, but simple disinfectants were used to kill it.

Online Learning in Secondary School Administration.

Online Learning encompasses a range of technologies such as the worldwide web, email, chat, new groups and texts, audio and video conferencing delivery over computer networks to impart education. It helps the learner to learn at their own pace, according to their own convenience. It refers to instructional activities or programs that were delivered over the World Wide Web. It is a type of distance learning, without attending a physical institution, in which learners and teachers interact over the internet (Dhull, 2017). He further makes the distinction between pure online and blended online learning. In this study, cases in which all of the instruction on the contents assessed by the outcome measures were delivered through the internet were categorized as pure online learning. Blended learning on its part is learning through a combination of online and face-to-face experiences. In this study, cases where students learned 25% or more but not all of the assessed content over the internet were categorized as blended learning.

Online learning is the "use of electronic media for a variety of learning purposes that range from add-on function in conventional classrooms to full substitute for the face-to-face meetings by online encounters". (Guri-Rosenblit, 2005). E-learning is taking a course online using a modern wireless or cable connection to access academic course material from a computer, phone or handheld device (Liao & Lu 2008).

Technology is a key component of education in the 21st century. The increasing use of technology in education has modified teachers' methods from the traditional approach that often placed them as dispensers of knowledge to a more flexible approach where they act more as facilitators, mentors and motivators to inspire learners to participate (Onyema et al, 2019). They argue that technology facilitates remote learning, Distance learning, Virtual learning, Blended learning, Mobile learning, Distributed learning, Machine learning, Ubiquitous learning, Deep learning, Cooperative and Collaborative learning. The use of appropriate educational technologies increases accessibility to learning resources such as Massive Open Online Courses (MOOCs), and multiple learning approaches to meet the need of diverse learners (Onyema et al, 2019).

The success of online education depends on factors including, good internet connections, learning software, digital skills, availability and access to technology. Online education platforms are vital tools that support inclusive education and online learning. Online education has its roots in distance education and the emergence of digital technologies that facilitate the efficient and reliable delivery of lectures, virtual classroom sessions and other instructional materials and activities via the internet (Onlineeducation.com, 2020). With the high penetration of the internet and mobile technologies across the globe, online education platforms can be maximized to bridge the gaps in education, thereby reducing the rate of global illiteracy. There are broad ranges of online education tools/platforms that facilitate online education particularly in times of outbreaks like the Covid-19 (Onyema &Nwafor, 2020).

Challenges of Online Learning

Due to unequal access to technology for many countries, UNESCO made some efforts to help educators and students in the affected countries to teach and learn online from their homes through the provision of free software that facilitates remote education. Catherine (2020) reported that UNESCO assembled an online guide with links to distance learning apps and other resources to mitigate the effects of school closures for Covid-19. Students were expected to optimize the Covid-19 mandatory school closures to improve their digital learning skills and home study habits. The challenges imposed by Coronavirus could be transformed into an opportunity by learners to advance their problem-solving skills and digital capabilities.

Double Shift school system

The double shift school system is a system of education under which learners attend classes either in the morning or afternoon in alternatives for a specified duration of time. Double-shift schooling is often presented as a short-term measure to increase school provision (Linden, 2001). One of the main policy approaches supported by international agencies and development organizations for reducing child labor calls for an increase in school attendance by expanding school places and building more schools (Todaro &Smith, 2003).

According to Bray (1989, 2000, 2008), Multiple–shift system means a school which caters for two or more entirely separate groups of pupils during a school day. She further stated that, a double-shift system (DSS) is a situation whereby the first group of pupils attends school from early morning until midday and the second group usually attends school from mid-afternoon till late afternoon. Each group uses the same buildings, laboratory equipment and other facilities. In some systems, the two groups are taught by the same teachers, but in other systems they are taught by different teachers. Such a system she argues seek to maximize the use of available resources by making more intensive use of buildings and other facilities, and to provide education to a greater number of pupils without multiplying investment.

In a similar way Harper (1987) views, double shift schooling as a system which involved the teaching of two groups, one in the morning and another in the afternoon by the same teacher. However, McWilliams (1964) explains the school shift system as "a system of schooling whereby there is a way of increasing the supply of school places by using existing resources efficiently". So the meaning attributed to double shift schooling carries nuances in meaning from one country to the other.

Double shift schooling resolves some of the tensions experienced by children and parents between attending school, and the need to perform domestic and farm Labor (Kea, 2007), especially during this period of Covid-19

where almost all parents were afraid to send their children to school. It also helped in maintaining a stable climate as secondary school administrators carried out their duties in the implementation of preventive measures. Also, double-shift schooling can help 'boost enrolment by accommodating children's work, making it easier for children to care for younger siblings, do chores, or even work for wages while enrolled in school' (Winthrop & Kwauk, 2016). They also argue that although this policy option does raise a number of questions, for many children, this might be the most realistic option in order to enjoy an educational opportunity especially for a crisis period like this.

In other contexts, where cultural particularities do not allow girls and boys to attend the same school and there is a shortage of school facilities, double-shift schooling could be a solution. For instance, Pakistan implemented double-shift schooling in rural areas in order to tackle the shortage of schools for girls (UNICEF, 2014).

Preventive measures of Covid-19

Education encouraged students to become advocates for disease prevention and control at home, in school, and in their community by talking to others about how to prevent the spread of viruses **(**WHO, 2020**)**. Lo Moro, et al (2020), propose that maintaining safe school operations or reopening schools after a closure requires many considerations but, if done well, can promote public health. Secondary school administrators, teachers and staff are key massagers and actors of basic principles. Following basic principles helped keep students, teachers, and staff safe at school and helped to stop the spread of this disease. Schools Administrators were asked to enforce regular hand washing with safe water and soap, alcohol rub/hand sanitizer or chlorine solution and, at a minimum, daily disinfection and clean school surfaces. Schools had to provide water, sanitation and waste management facilities and follow environmental cleaning and decontamination procedures.

In Cameroon, Covid-19 task force was formed, and international borders were closed for incoming passengers by 18 March 2020. Under the leadership of the Prime Minister, several preventive measures were instituted nationally to prevent the local Covid-19 spread. These included closure of all schools and training institutions, forbiddance of any gathering of more than fifty persons, closure of entertainment spots by 18:00pm daily, strong discouragement of urban and inter-urban travel, regulation of consumer flow to and from markets and shopping centers, postponement of sports competitions, and observance of hygiene measures such as regular hand washing with soap, avoiding close contacts with other persons, covering one's mouth when coughing/sneezing, and other measures as prescribed by the World Health Organization (Béché, 2020). As the disease continued gaining grounds, the national Covid-19 response equally ramped up with the institution of additional measures, including mandatory face mask use in public places that was effective from 13thApril 2020. In addition, contact tracing strategies were intensified and testing capacity also increased to over 1000 tests per day in May 2020. Furthermore, a toll-free phone line (1510) was dedicated to the Covid-19 response team, through which the population could obtained support or forward any Covid-19 related information (Fodjo,et al, 2021). School officials worked to guarantee schools were not used as shelters or treatment units, and cancelled any community events/meetings that usually took place on school premises, based on risk. Frequent hand washing was reinforced and needed sanitation supplies procured. Hand washing stations with soap and water, were placed at all entrances and exits including alcohol-based hand rubs (hand sanitizers) in each classroom and toilets. School buildings, classrooms and surroundings were cleaned and disinfected on a weekly basis. All activities that attracted crowding were suspended.   Procedures were established to handle students or staff who may take ill ahead of time with local health authorities, school health staff and emergency contact lists were updated and referral health facilities were created and made known to all (Ma'asShobirin, 2021).

School administration
Administration can be seen as the process of defining, allocating and integrating roles and personnel to maximize the probability of achieving the goal of the organization (Burham, 1969). Administration in the sphere of education has as ultimate objective to maximize the whole process of learning through the rational coordination of the efforts of those involved namely: the school principal, teaching staff, catering staff, counseling, pastoral and financial staff, learners, and parents inclusive. Through administration, a school intends to achieve its goals/ objectives mainly with reference to efficiency in teaching and learning. The process of administration may therefore refer to a coordinating process whereby, the aims and policies of an organization are defined, established and measures towards their achievement (Fonkeng &Tamajong 2009). According to Mbua (2003),

Theoretical review

Fullan's (2009) theory of change, the scientific management theory by Taylor (1911), and the control or choice theory by Glasser (1925) inform the concepts of the study.

According to Fullan (2009), change theory is a framework based on the relationship between schools and their cultural environments. Society's culture norms shape organizational structure by encouraging schools to conform to the accepted rules. Educational change according to Fullan, aims at school improvement in one way or the other. His model focused on the human participants taking part in the change process. Fullan and Stiegelbauer's (1991) present guidelines for resisting, coping or leading change efforts ranging from the student to the national government's perspectives. Ellsworth (2001) pointed out that the issues that Fullan's model helps the change agent to deal with include the implications of change for people or organizations promoting or opposing it at a particular level and what different stakeholders do to promote change that addresses their needs and priorities.

Rogers (1996), proposes that a change agent is an individual who influences clients' innovation-decisions in a direction desirable by a change agency. Rogers' Diffusion of Innovation seems to have a clear relationship between the change agent and its client system. On the contrary, Fullan views every stakeholder in the educational change as agent. Fullan and Stiegerlbauuer (1991) as cited in Ellsworth, (2001), assume that there is enormous potential for true, meaningful change simply in building coalitions with other change agents, both within one own group and across all groups**.** Fullan (1982, 1991) proposed that there are four broad phases in the change process: initiation, implementation, continuation, and outcome. However, Hopkins (2003), and Barth (1990), understand school improvement as an effort to determine and provide from within and without, conditions under which the adults and youngsters who inhabit schools will promote and sustain learning among them.

Scientific management also called Taylorism is a theory of management that analyzes and synthesizes workflows, and improves labor productivity. The core ideas of the theory were developed by Taylor in the 1880s and 1890s, and were first published in 1905 and later in (1911). The scientific method could be applied to all problems and to managers as workers. The man at the head of any organization is under Scientific Management governed by rules and laws which have been developed through hundreds of experiments just as much as the workman is. According to this theory, the way to improve performances, a good working relationship and a free disease environment among members was for the managers to study the way work was being done by identifying a more effective approach (Wright & Noe 1996). Taylor seeks to apply a positivistic, rational perspective to the conflicting and inefficient work organization.

Choice theory by Glasser (1925) explains that all we ever do from birth to death is behaving and, with rare exceptions, everything we do is chosen. Every total behavior is our best attempt to get what we want to satisfy our needs. Total behavior teaches that all behavior is made up of four inseparable but distinct components-acting, thinking, feeling, and physiology that necessarily accompany all of our actions, thoughts, and feelings. Behavior is purposeful because it is designed to close the gap between what we want and what we perceive we are getting. Specific behaviors are always generated from this discrepancy. Our behaviors come from the inside, and thus we choose our destiny.

Glasser's choice theory (1967) states that a person's behavior is inspired by what that person want or needs at the particular time, not an outside stimulus. It holds that all individuals control their behavior to fulfill their needs and satisfaction. Every individual has the power to change their lives for better based on the choice they make. A person can make the proper choices and take greater responsibility for their actions by asking themselves the four questions (1) what do I want? (2) What am I doing to achieve what I want? (3) Is it working? and (4) What are my plans or options?

Methodology

This study used a cross sectional survey research design. The design was used to collect data from secondary school administrators and their supervisors in order to understand how they administered their institutions during the period of the pandemic. The design was suitable because it enabled the researcher to analyze a trend across a time period, and generally, to describe what happened. The population of this study was made of one hundred (100) principals, forty-eight thousand five hundred and seventy-five (48575) students and three thousand nine hundred and twenty-six (3926) teachers drowned from government, Confessional and Lay-private school in

Fako-Division of the South West Region of Cameroon. The target population constituted secondary school principals of public, confessional and lay-private secondary schools in Buea, Tiko, Limbe I, Limbe II and Limbe III Sub-divisions, divisional delegate and pedagogic inspectors of secondary education in Fako-Division. The sample consisted of 50 principals, 2 divisional pedagogic advisers and the Regional Delegate for secondary education for the South West Region. Simple random sampling and proportionate sampling strategies were used to select the sample of schools and principals and purposeful sampling to select the delegate and pedagogical inspector. A questionnaire was used to collect data from 50 principals, and an interview schedule to collect data from the regional delegate and 2 pedagogic inspectors.

Findings

Research question one: the impact of online learning on secondary school administration in Fako-Division

Statements	Stretched				Collapsed	
	SA	A	SD	D	SA/A	SD/D
The school was able to acquire the equipment needed for online teaching.	9 (18.0%)	21 (42.0%)	6 (12.0%)	14 (28.0%)	30 (60.0%)	20 (40.0%)
The school could not provide the equipment for online teaching	4 (8.0%)	14 (28.0%)	15 (30.0%)	17 (34.0%)	18 (36.0%)	32 (64.0%)
Online learning has brought a great change in the school.	8 (16.0%)	28 (56.0%)	4 (8.0%)	10 (20.0%)	36 (72.0%)	14 (38.0%)
Online learning has made administration difficult.	7 (14.0%)	11 (22.0%)	20 (40.0%)	12 (24.0%)	18 (36.0%)	32 (64.0%)
Online learning made it difficult to supervise teachers.	17 (34.0%)	11 (22.0%)	13 (26.0%)	9 (18.0%)	28 (66.0%)	22 (44.0%)
Online learning made it difficult to supervise students.	17 (34.0%)	13 (26.0%)	14 (28.0%)	6 (12.0%)	30 (60.0%)	20 (40.0%)
Online learning is difficult to manage because of poor power supply.	23 (46.0%)	22 (44.0%)	1 (2.0%)	4 (8.0%)	45 (90.0%)	5 (10.0%)
Online learning is difficult to manage because of low internet connectivity.	29 (58.0%)	17 (34.0%)	4 (8.0%)	00 (00.0%)	46 (92.0%)	4 (8.0%)
There was lack of time to learn the new technology brought by online learning.	14 (28.0%)	12 (24.0%)	13 (26.0%)	11 (22.0%)	26 (52.0%)	24 (48.0%)
It effectively contributed to preventing the spread of the corona-virus.	16 (32.0%)	22 (44.0%)	4 (8.0%)	8 (16.0%)	38 (76.0%)	12 (24.0%)
Multiple response set	**144 [28.8%]**	**171 [34.2%]**	**94 [18.8%]**	**91 [18.2%]**	**315 [63.0%]**	**185 [37.0%]**

Table 1: Principal's opinions on the impact of online learning on secondary school administration.

In aggregate, findings showed that 63.0% of the principals agreed that online learning had an impact on school administration while 37.0% of the principals disagreed.

Verification of Hypothesis One: There is no significant relationship between impact of online learning and secondary school administration.

Table 2 shows the testing of relationship between online learning and secondary school administration.

Table 2

Relation between impact of online learning and secondary school administration

Statistical test	Test statistics	Online Learning	Secondary school Administration
Pearson Product Moment test	R-value	1.000	0.462**
	P-value	.	0.001
	N	50	50
**. Correlation is significant at the 0.001 level (2-tailed).			

Statistically, findings showed that there was a significant, moderate and positive relationship between online learning and the administration of secondary schools (P=0.001, far <0.05). The positive sign of the relationship (R= 0.462**) implies that the better the online teaching, the better the secondary school administration. Therefore, the null hypothesis that states that there is no significant relationship between impact of online learning and secondary school administration was rejected and the alternative hypothesis retained.

Regional Delegate and Pedagogical Inspectors views of the impact of online learning on school administration during the pandemic

The regional delegate and pedagogic inspectors responses were clustered around three themes. The first centered on challenges faced in the supervision of teaching and learning;
"Online learning has affected the principals as they face difficulties in supervising teachers who during the peak of the crisis stay: at home and teaches the students"

"It was an additional value to the principals to use the ICT in management of their schools but a good number of the principal still find it hard to work with the online platforms"

"Principals also have to apply different method of supervision of staff from what they were used to make sure that the system keeps going which was very difficult for the principals to change his/her administrative strategy:

The second was on the provision of internet services during this period as they said that;
"Online learning was so difficult for the principals because a good number of them were no internet serving and some could not identify the difficulties because they could not provide a log-book school which shows lesson covered that was recorded by those teachers that have facilitated the students to cover that lessons"

"In some schools, students don't even have asset to the internet, teachers were able to go to the internet and download note on the various subject and then brought them to the computer lab, then just play tit for students to follow it, so, principals don't real have much to do as they were simply just observing what was happing and directing the students to go to the MENESEC web-site. Go to the zoom meetings and so on". And the third theme was centered on the workload;

"Online learning has come to give some additional work to the principal because with E-learning, they have to find out if the teachers are actually assessing the students and whether the students are following up well. How is the evaluation done to ensure that the students are actually understood the various lesson taught?"

"They have to spend a lot of finance to purchase the necessary equipment needed for online learning.   While to some schools it was not easy for the principle to handle the situation"

Regional Delegate and Pedagogic Inspectors reported that online learning had a negative impact on the management of secondary school during this pandemic. Challenges cited include difficulties in supervision, problems associated with lack of internet facilities, connectivity know how of both students, teachers and additional workload arising from required but unavailable heavy financial expenditure; and the lack of internet services. The demands of online tutoring brought most school administrators to their knees.

Research question Two: The impact of double shift system on school administration
Table 6 the opinions of principals on the impact of double shift schooling during this crisis.

Statements	Stretched				Collapsed	
	SA	A	SD	D	SA/A	SD/D
It enabled me to admit and manage more students than during the single shift.	16 (32.0%)	20 (40.0%)	8 (16.0%)	6 (12.0%)	36 (72.0%)	14 (28.0%)
Managerial load was increased affecting quality.	15 (30.0%)	22 (44.0%)	9 (18.0%)	4 (8.0%)	37 (74.0%)	13 (26.0%)
It increased working hours and teaching load, without a corresponding adjustment in salary.	22 (44.0%)	19 (38.0%)	8 (16.0%)	1 (2.0%)	41 (82.0%)	9 (18.0%)
It contributed to the increased in infrastructures.	8 (16.0%)	16 (32.0%)	13 (26.0%)	13 (26.0%)	24 (48.0%)	26 (52.0%)
Teacher work load were doubled with increased in salary leading to an increase in productivity.	11 (22.0%)	15 (30.0%)	17 (34.0%)	7 (14.0%)	26 (52.0%)	24 (48.0%)
Double shift schooling is not the best method for managing administration in schools.	17 (34.0%)	23 (46.0%)	8 (16.0%)	2 (4.0%)	40 (80.0%)	10 (20.0%)
More teachers were posted to the school leading to a reduction of teacher's work load and increase in quality of teaching.	7 (14.0%)	18 (36.0%)	17 (34.0%)	8 (16.0%)	25 (50.0%)	25 (50.0%)
Teachers learning resources were increased.	10 (20.0%)	19 (38.0%)	15 (30.0%)	6 (12.0%)	29 (58.0%)	21 (42.0%)
Teaching learning resources became insufficient.	15 (30.0%)	22 (44.0%)	11 (22.0%)	2 (4.0%)	37 (74.0%)	13 (26.0%)
It enabled the school to effectively prevent the spread of the corona-virus.	11 (22.0%)	25 (50.0%)	9 (18.0%)	5 (10.0%)	36 (72.0%)	14 (28.0%)
Multiple response set	**132 (26.4%)**	**199 (39.8%)**	**115 (23.0%)**	**54 (10.8%)**	**331 (66.2%)**	**358 (33.8%)**

n=50

On aggregate, findings showed that 66.2% of the principals agreed that the double shift system had an impact on secondary school administration while 33.8% of the principals disagreed.

Verification of Hypothesis Two: There is no significant relationship between double shift and secondary school administration.

Table 8: *Relation between double shift schooling and school administration*

Statistical test	Test statistics	Double shift	Secondary school Administration
Pearson Product Moment test	R-value	1.000	0.377**
	P-value	.	0.007
	N	50	50
**. Correlation is significant at the 0.01 level (2-tailed).			

Statistically, findings showed that there is a significant, moderate and positive relationship between double shift system and secondary school administration (P=0.007, far <0.05). The positive sign of the relationship (R= 0.377**) implies that the more effective the double shift system is, the better the secondary school administration. Therefore, the null hypothesis stated above was rejected and the alternative hypothesis that states that there is a significant relationship between double shift system and secondary school administration was accepted.

Regional Delegate and Pedagogic Inspectors views on the impact of double shift schooling centered around increase in schooling time and teachers' workload and insufficient personnel.
"The double shift system was a difficult one to the school principals as he needed to increase the school time, increase teachers work load and faced difficulties in supervision of both teachers and learners"

"It was a very big challenge for the school principals because it was expected that there should be two-time table ie, one in the morning and the other in the afternoon"

"It was very challenging for the principals to manage the school so; some principal has to give extra work to teachers who are not in the administrative department to assist him, while using the administrative staffs like Vice principal, discipline masters etc"

"Most principals have to place the examination classes in the morning and the non-examination classes in the afternoon". And

"The discipline master who was there in the morning has to be change in the afternoon and there were not enough to handle the double shift system of schooling. So, it was difficult in making sure that they cover what was expected to be covered efficiently and effectively"

"It has been very difficult in terms if management of schools with the principals in the schedule of learners with the two-shift system. And to make sure that the learners follows these schedules, there was great need for personnel"

"They also faced difficulties in managing their personnel because the teacher who taught in the morning was also expected to teach in the afternoon"

Regional Delegate and Pedagogic Inspectors, agree that the double shift system increased teacher's work load and time spent in teaching requiring a double time table and increased monitoring time by principals which they could not cope with. The shortage of teachers also increased the difficulties faced by principals in managing the schools.

Objective Three: The impact of preventive measures of covid-19 on secondary school administration in Fako Division

Table 9 the opinions of principal on the impact of preventive measures of Covid-19 on school administration

Statements	Stretched			Collapsed		
	SA	A	SD	D	SA/A	SD/D
The school received special funds to handle the cost.	7 (14.0%)	10 (20.0%)	20 (40.0%)	23 (26.0%)	17 (34.0%)	43 (66.0%)
The cost was more than the school to handle	4 (8.0%)	13 (26.0%)	15 (30.0%)	18 (36.0%)	17 (34.0%)	43 (66.0%)
Teacher was provided with the necessary preventive materials.	10 (20.0%)	32 (64.0%)	3 (6.0%)	5 (10.0%)	42 (84.0%)	8 (16.0%)
The school provides enough water for hand washing.	34 (68.0%)	14 (28.0%)	2 (4.0%)	00 (00.0%)	48 (96.0%)	2 (4.0%)
The school provide enough soup and sanitizer for use by teachers and administrative staffs	35 (70.0%)	14 (28.0%)	1 (2.0%)	00 (00.0%)	49 (98.0%)	1 (2.0%)
More classrooms were built to meet the teaching learning needs.	6 (12.0%)	10 (20.0%)	16 (32.0%)	19 (36.0%)	16 (32.0%)	35 (65.0%)
Stakeholder contributed to enable the school successfully carried out the barrier measures	12 (24.0%)	29 (58.0%)	3 (6.0%)	6 (12.0%)	41 (82.0%)	9 (18.0%)
Students respected the preventive measures.	13 (26.0%)	33 (66.0%)	00 (00.0%)	4 (8.0%)	46 (92.0%)	4 (8.0%)
It makes extra-curricular activities difficult.	29 (58.0%)	20 (40.0%)	00 (00.0%)	4 (8.0%)	46 (92.0%)	4 (8.0%)
All students and staff respected the wearing of face masks.	6 (12.0%)	17 (34.0%)	5 (10.0%)	22 (44.0%)	23 (46.0%)	27 (54.0%)
Multiple response set	**156 (31.2%)**	**192 (38.4%)**	**65 (13.0%)**	**101 (20.2%)**	**348 (69.6%)**	**166 (33.2%)**

n=50

On aggregate, a majority of the principals (69.6%) agreed that the preventive measures of covid-19 brought an adverse effect on secondary school administration meanwhile (33.2%) of them disagreed.

Verification of Hypothesis Three: There is no significant relationship between preventive measures of Covid-19 and secondary school administration.

The relationship between preventive measures of Covid-19and secondary school administration is presented in table 11.

Table 11: *Relation between preventive measures of Covid-19 and secondary school administration*

Statistical test	Test statistics	Preventive measures of Covid-19	Secondary school Administration
Pearson Product Moment test	R-value	1.000	0.353[*]
	P-value	.	0.012
	N	50	260
*. Correlation is significant at the 0.05 level (2-tailed).			

Statistically, findings showed that there is a significant, and positive relationship between preventive measures of Covid-19 and secondary school administration (P=0.012, far <0.05). The positive sign of the relationship (R= 0.353[**]) indicating that the better the preventive measures of Covid-19, the better the administration of secondary School. Therefore, the null hypothesis that states that there is no significant relationship between preventive measures of Covid-19 and secondary school administration was rejected and the alternative hypothesis that states that there is a significant relationship between preventive measures of Covid-19 and secondary school administration was accepted.

Regional Delegate and Pedagogical Inspectors views on the impact of preventive measures of Covid-19 on school administration

"Principals faced a lot of financial difficulties because most of the money that was meant to run the school was shifted to the purchase of preventive materials and the assistance given to the principals was too small compared to the school population"

"The principal faced a lot of financial difficulties as a result of institution of the preventive measures in schools. Such as;

To take care of the preventive measures' equipment's, like soap, pockets availability of any water sources in the campus, alcohol base sanitizer, disinfectant equipment etc"

"The preventive measures of Covid-19 impose a lot of financial management on the school's principals in provision of all preventive equipment"

"It increases personnel to supervise the preventive barrier measures. So, it was an additional work load to the principal as he/she makes sure that all the preventive measures are provided and well implemented. The coming of the covid-19 has just come to give an additional word to the administrative word of the principals"

They are unanimous in their views that financial difficulty and additional work load were the major stumbling blocks to school management

Discussion

Research objective one: the impact of online learning on secondary school administration in Fako-Division.

In relation to the impact of online learning principals agreed that online learning did not facilitate school management. It made it difficult for them to manage the human, material and financial resources. They were ill–prepared and did not have the required equipment, knowledge and knowhow to cope with the requirements of managing the school. The Regional Delegate and Pedagogic Inspectors agreed with principals that managing schools online created severe difficulties for principals who were not prepared, were not trained on using the online environment for management. This was aggravated by the lack of internet access by principals, teachers and students making learning and assessment very difficult to undertake and to supervise. This contrast with the findings of Butnaru, et al., (2021) during the same period which found out that students reacted differently to online education, but their reaction was based on their proficiency in using online tools, their ability to technically access online courses, and the instructors' manner in conducting learning activities. Also, relationships between the perception of teaching staff ability to manage online courses and the perception

regarding the adaptation of educational institutions to online education were relative. While findings here hold that online learning was hampered by low internet connectivity, poor power supply, lack of online tools and a lack of proficiency in using online tools. Onyema & Nwafor (2020), agree that knowledge of technology increases educators' and learners' interest, competence, confidence, creativity, employability and output, and also prepares them for the future. However, these advantages could not be realized as administrators, teachers and learners did not have the equipment, knowhow and access to have effectively used online facilities in management and learning during the pandemic in Cameroon as affirmed by Onyema, Nwafor, Obafemi & Shuvro (2020) that receiving formal education from home could be very challenging to many educators, learners and parents especially those in developing countries where the accessibility, availability and use of technology in education are not widespread. Apart from the cost of accessing online education, many other factors such as network issues, poor power supply, distractions, poor digital skills, inaccessibility and availability issues also hinder smooth study from home.

Research objective two: The impacts of double shift system on secondary school administration in Fako-Division.

The findings on double shift schooling during the pandemic indicate that it facilitated an increase in the enrollment of students which directly negatively affected the quality of l\teaching and learning by reducing the available teaching and learning resources, and increasing teachers' workloads without a corresponding increase in motivation. This is corroborated by the pedagogic inspectors and the regional delegate, leading to a backlash on school effectiveness. The finding slightly differs from those of Pedroza (2020, Todaro and Smith 2003, Bray, 2008, Mapolisa, et al., 2015),) who found out or argued that, double shift system was an effective way to increase education supply at low cost while, maximize the use of available resources (human, material, and financial resources), provide education to a greater number of pupils without multiplying investment and that a School principal who actually practices this system of schooling most be smart in management of school resources so as to achieve good result at the end of the school year. However these findings and assertions did not arise out of the pandemic experience but rather out of the normal conditions of schooling.

Research objective three: The impact of preventive measures of covid-19 on secondary school administration in Fako-Division

This is in line with previous assertion from, Fodjo, et al., (2020) who found out that almost all the measures were adhered to as there was a regular hand washing and use of alcohol, wearing of faced mask, respecting social distance, covering of mouth when sneezing or coughing and School administrators followed the same trend in their institution, which provided effective administration in almost all ten regions in the country.

Covid-19 preventive measures were viewed by almost all secondary school administrators as a key measure that was used to limit the spread of the disease in schools and maintain good learning environments as all students and staff respected the wearing of face masks, even though preventive measure of Covid-19 made the holding of extra-curricular activities difficult. Majority of the principals agreed that it had an impact on secondary school administration. This is in line with Beche (2020) who argued that, preventive measures of Covid-19 were the only means to ensure good learning atmospheres in schools by school administrators. He went further to say school administrators need to educate the learners and staff on the importance of preventive measures and to avoid stigmatization among learner and staff.. So, secondary school administrators were able to take upon themselves the responsibility for a full implementation of the Covid-19 barrier measures as Shobirin 2021, Sundaram, et al, 2020)) cautioned that secondary school administrators need to collaborate with officials to guarantee the smooth running of schools while considering cancelling any community events/meetings that usually took place on school premises, based on risk. Reinforce frequent hand washing and sanitation and procure needed supplies. Prepare and maintain hand washing stations with soap and water, and if possible, place alcohol-based hand rub (hand sanitizers) in each classroom, at entrances and exits, and near lunchrooms and toilets. Clean and disinfect school buildings, classrooms and especially water and sanitation facilities at least once a day, particularly surfaces that are touched by many people.

Therefore, according to, the Diffusion of Innovations Theory by Rogers (1962), if the barrier measures of Covid-19 were well diffused to all the educational community, secondary school administrators will have managed their financial and material resources with little or no difficulties.

Conclusion

In conclusion, findings show clearly that online learning, double shift system and preventive measures of Covid-19 exerted a negative influence on secondary school administration due to the lack of knowledge and know by principals, teachers and students, inadequate provision of technology, of teaching and learning resources and funding. These prevented them from being able to implement the required change successfully as encapsulated in the theory of change by Fullan (2009), Scientific Management theory by Taylor (1911), and the Diffusion of Innovations theory by Rogers (1962).

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