

# Assessment of Compliance Level of Public Schools to Covid-19 Guidelines for Safe School Re-Opening and Learning in Makurdi Metropolis, Benue State, Nigeria

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**Abstract:** Covid-19 Pandemic has affected educational activities world over including public schools in Nigeria. In a bid to ensure adequate preparedness of schools and learning facilities for safe reopening and resumption of academic activities without placing the health, safety and security of learners, teachers and others at risk, the Federal Ministry of Education through the Universal Basic Education Commission trained school heads, teachers and other education managers of basic schools across the country including Benue State, and implemented the national guidelines for safe reopening of schools and learning facilities. This study assesses the level of compliance by public schools in Makurdi Metropolis of Benue State. Data for the study was collected from public schools in the study area using physical observation and questionnaire, and analysed using descriptive statistics. The result of the study reveals that water, sanitation and hygiene infrastructures and practices in public schools in the study area fall short of the guidelines. The result also shows that majority of the schools are not complying with the guidelines as it was evident in non-compliance with social distancing of 2metres apart in classes, lack of platooning and alternate attendance. Based on the result, the study recommends for full compliance with the safe school reopening and learning guidelines for safety of both pupils and teachers.

**Keywords:** Covid-19 Pandemic, Public Schools, Water, Sanitation, Hygiene, Makurdi Metropolis

## I. INTRODUCTION

Covid-19 is an infectious virus disease that is caused by a strain of SARS-CoV-2 which is referred to as the “coronavirus” or the “novel coronavirus”. The virus belongs to a large family of viruses that cause respiratory infections which can range from the common cold to more serious diseases. It is transmitted from spread through droplets of saliva or discharge from the nose when an infected person coughs or sneezes in close contact with other people who then may breathe in the droplets or when the droplets from an infected person deposit on any material and people come in contact with such material immediately. Covid-19 affects the human lungs and airways with symptoms including cough, high temperature, and shortness/difficulty of breath. Currently, there isn't any confirmed treatment for the Covid-19 disease as all medical efforts are currently aimed towards

relieving the symptoms until the affected patient recovers (Centre for Disease Control ‘CDC’, 2020).

Covid-19 virus was first detected in the city of Wuhan, China, in late 2019 but the outbreak spread quickly across the globe in the first months of 2020. It was declared a global pandemic by the World Health Organisation (WHO) on 11 March 2020. A pandemic is when an infectious disease is passing easily from person to person in many parts of the world at the same time. The best way in addressing the pandemic is to completely stop the spread and treat all persons infected with the disease which is lacking at the moment.

In response to the pandemic, almost all countries have implemented public health and social measures. The World Health Organisation advised that the best way to prevent the transmission of Covid-19 was by avoiding exposure to the virus by complying with personal protective measures (e.g wearing of masks, washing or sanitising of hands frequently, practicing respiratory etiquette), social measures (e. g staying and working at home, staying at least two meter away from another person, avoid crowded places including public transport, bars/restaurants, and schools), and travel measures (e.g limiting travel between cities, regions, and nations). These measures aim to slow the transmission of the virus (World Health Organisation, 2020). Slowing the spread of a pandemic reduces the number of active cases at a given time, known as ‘flattening the pandemic curve’. This allows the health system some time to prepare and respond without being overwhelmed (World Health Organisation, 2020). Adherence to public health and social mitigation measures are therefore key to flattening of the pandemic curve.

Studies investigating compliance of public health and social measures to prevent the spread of COVID-19 have so far shown a spectrum of compliance to such measures. Reasons for compliance, or lack thereof, to prevention measures have included attitudes to the prevention measures, perceived risk of the virus to the individual, belief in the existence of the virus, law enforcement and / or penalties imposed due to non-compliance, availability and ease of access to protective measures (e.g., face masks, running water and soap, hand

sanitiser), and availability and accessibility of alternative work and travel arrangements (World Health Organisation 2020, Azlan, Hamzah, Sern, Ayub, & Mohammad 2020, Nnama-Okechukwu, Chukwu, & Nkechukwe 2020, Zhong, Luo, Li, Zhang, Liu, Li, et al 2020, Czeisler, Tynan, Howard, Honeycutt, Fulmer, Kidder, et al 2020). However, most of these studies are done in countries other than Nigeria and none in Benue state in particular.

Since the outbreak of Covid-19 pandemic in Nigeria, government has put in place several measures to prevent, mitigate, and respond to the spread of Covid-19 across the country. These include lockdowns, movement restrictions, social and physical distancing measures as well as public health measures. The education sector was severely affected due to total closure of schools across the country. In an attempt to reopen schools, the federal government in collaboration with other relevant agencies (national agencies responsible for management of covid-19 and WHO) have developed guidelines and trained state education managers/administrators /school heads/teachers for safe reopening of schools and learning facilities after covid-19 lockdowns in Nigeria. The guidelines specified and outlined actions, measures and requirements needed for schools to operate in the pandemic era. The degree of implementation and level of compliance by the government, schools, teachers, students and members of the public across the country remains unknown particularly at basic school levels. This paper attempts an assessment of level of compliance to this standard in Benue State among public schools at basic level of education.

## II. METHODS AND STUDY AREA

### 2.1. Study Area

Makurdi metropolis is one of the cities in central Nigeria and is located between latitude  $7^{\circ}44'N$  and  $7^{\circ}55'N$ , and longitude  $8^{\circ}20'E$  and  $8^{\circ}40'E$  (figure 1). The town is about  $16km^2$  radius, situated on the banks of the River Benue. The town falls within the tropical humid and mega thermal climate with wet and dry seasons (Aw) according to Koppen's classification. The climatic condition is influenced by two air masses: the warm, moist south westerly air mass, and the dry northeasterly air mass. The southwesterly air mass is a rain-bearing wind that brings about rainfall from the months of March/April to October. The dry north-easterly air mass blows over the region from November to April, thereby bringing about seasonal dryness. The annual rainfall in Makurdi is between 1,200-1,500mm (Adamgbe and Ujoh, 2012). The temperature condition is however, generally high throughout the year with a daily mean of  $23^{\circ}C - 28^{\circ}C$  and maximum of  $37^{\circ}C$  (Tyubee, 2005). Makurdi town like most other cities in the lower Benue valley is drained by the Benue River and its tributaries including Idye, Genabe, Urudu, Kpege and Kereke streams. Due to the general low relief of the town which rises from 65-66m (210-220ft) in the river valley northwards and southwards to 154m (500ft), sizeable portions of the town are

waterlogged and flooded during heavy rainstorm (FMWRRD, 1998).

The town is the largest city in Benue state with a projected population of 391,924 people as at 2016 (Tser, 2013). The town is the administrative capital of Benue state and Makurdi local government council. Major socio-economic activities in the town include schools (both public and privates), government establishments, urban daily markets, banks, industries, two universities among other educational institutions, hotels, filling stations. Because of the importance of educational development, most residents of the town have enrolled their children/wards into schools (either public or private schools). These schools generate varying degree of social interaction that has become a matter of concerns in the advent of covid-19 pandemic necessitating the need for strict adherence to covid-19 protocol for schools.

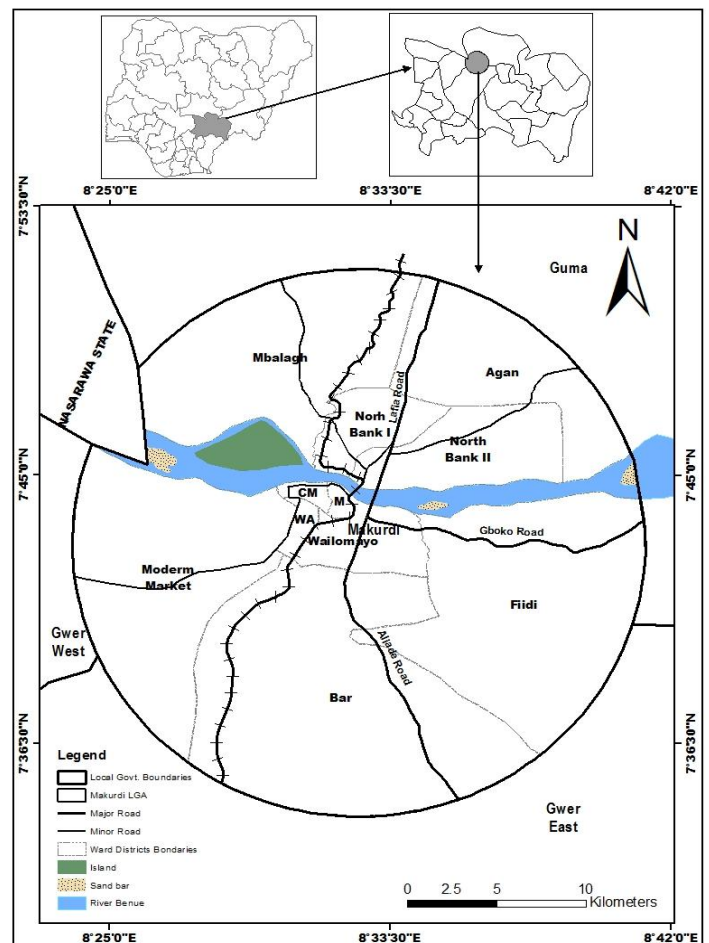


Figure 1: Map of Makurdi Town Showing Road/Streets Network

### 2.2. Methods

The study purposively selected 10 public schools in Makurdi metropolis including St. Theresa primary and Junior Secondary School Low-Level, Wurukum, Iortyer, North Bank, Kanshio, Wadata, Baracks Road, Gaadi, LGEA Islamia primary school, Data for this study was acquired from these

schools through personal observations, questionnaire and interviews. Through personal observation, compliance level to covid-19 guidelines for safe school reopening and learning were observed by the researchers. The questionnaire was administered on both students and teachers to elucidate information on knowledge of covid-19, mode of transmission, symptoms of covid-19 infection, and methods of prevention among others. The data were analysed using descriptive statistical techniques.

### III. RESULTS AND DISCUSSIONS

#### *Socio-Demographic Characteristics of Respondents in the Study Area*

Socio-demographic characteristics are very vital information that gives an insight into the nature and quality of information a researcher is likely to get from the population, and how inclusive the sample size was. The result of the field survey conducted in the study area on socio-demographic characteristics of respondents is presented in Table 1

TABLE 1: Socio-Demographic Characteristics of Respondents in the Study Area

Socio-demographic Variables	Respondents	Percentage %
<b>Sex</b>		
Female	76	76%
Male	24	24%
Total	100	100%
<b>Age Group</b>		
Below 15years	15	15%
15-25years	12	12%
26-35years	8	8%
36-45years	41	41%
46years Above	24	24%
Total	100	100%
<b>Designation</b>		
Principal/Head Teachers	15	15%
Teachers	62	62%
Students/Pupils	23	23%
Total	100	100%
<b>Marital Status</b>		
Single	29	29%
Married	62	62%
Widow/Widower	9	9%
Total	100	100%
<b>Educational Attainment</b>		
Still in Primary School	15	15%
Still in Junior Secondary School	8	8%
SSCE	0	0

Tertiary	77	77%
Total	100	100%
<b>Are you aware of Covid-19?</b>		
Yes	100	100%
No	0	0%
Total	100	100%
<b>Have you received training on Covid-19?</b>		
Yes	28	28%
No	72	72%
Total	100	100%
<b>If Yes, indicate the body the trained you</b>		
UBEC	19	68%
NGOs	3	11%
FBOs	0	0%
Others	6	21%
Total	28	100%

Source: Authors' Field Survey, 2021

Key: UBEC (Universal Basic Education Commission), NGOs (Non-Governmental Organisations), FBOs (Faith Based Organisations)

The information in table 1 shows that female formed the majority of the respondents accounting for 76% while respondents between the age group of 36-45years dominated accounting for 41%. The result also shows that head teachers/principals and teachers jointly account for 77% while students/pupils accounts for 23%. The educational attainment of the respondents shows that those still in primary school were 15%, those still in secondary school were 8% while those with tertiary certificate accounted for 77%. This buttressed the fact that 77% of the sampled population were teachers/head teachers or principals with tertiary level educational qualification. This is very important because they are the drivers of education in any society. The study also shows that out of the 77% teachers/head teachers or principals, only 28% were trained for Covid-19 safe school reopening in the study area with Universal Basic Education Commission (UBEC) training only 19 teachers, NGOs 3, other organisations trained 6. It can be deduced from the findings that all the respondents were aware of COVID-19 however, percentage of teachers/head teachers and principals trained were too small leaving greater percentage of them untrained.

#### *Knowledge of Covid-19 among Teachers/head Teachers/Principals and Students*

The study sought to assess the level of knowledge of Covid-19 among teachers/head teachers/principals and students in the study area using parameters including source of information on Covid-19, symptoms, transmission modes and preventive measures of Covid-19. The result of the field survey is presented in figure 2, 3, 4 and 5 respectively.

*Medium of Information on Covid-19*

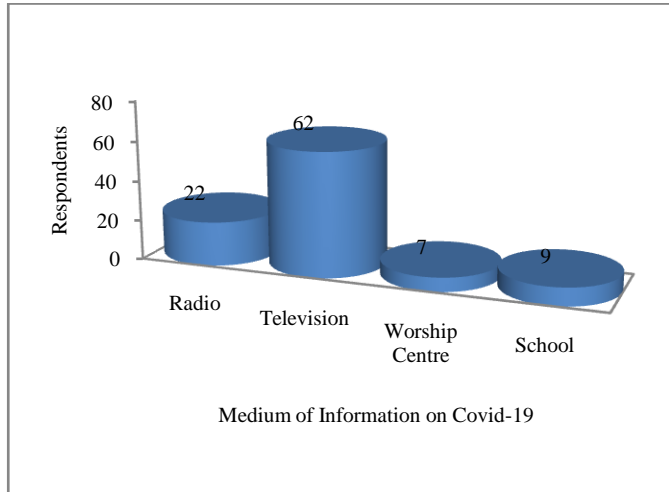


Figure 2: Medium of Information on Covid-19 in the Study Area

The result of the field survey as presented in figure 2 reveals that the major sources of information on Covid-19 in the study area were through television accounting for 62%, and radio accounting for 22% while schools accounted for only 9%. The low percentage attributed to schools is not surprising given the fact that the outbreak of Covid-19 led to total lockdown of educational institutions at all levels in Nigeria. The electronic media therefore was the major channel of information about the pandemic. This findings agreed with Dada & Amosu (2021), which found in their study that the pupils major source of information on covid-19 was television programme (44.4%) against other sources including health professional (15.7%); family (25.4%) friends (10.1%). This explained the power of mass media particularly television channels/platforms in rapid information dissemination in our contemporary society.

*Symptoms of Covid-19*

The knowledge of symptoms of Covid-19 is very vital for quick and timely management of the disease.

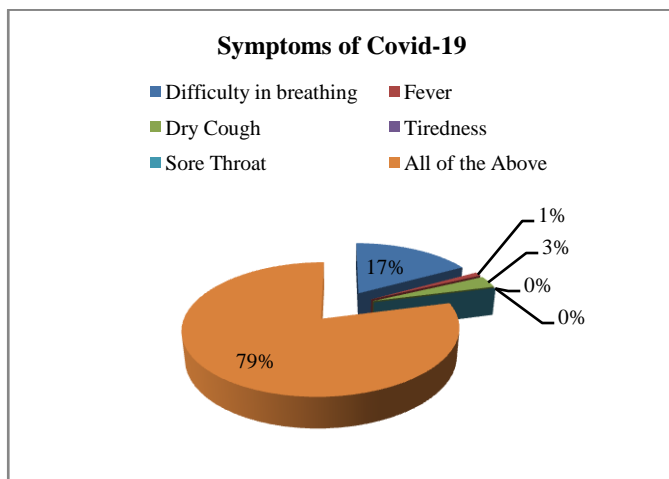


Figure 3: Symptoms of Covid-19 in the Study Area

The analysis of the field survey as presented in figure 3 shows that 79% of the respondents in the study area were aware that Covid-19 symptoms include difficulty in breathing, fever, sore throat tiredness and dry cough. However, 17% knew of sore throat only while 3% and 1% knew of dry cough and fever as the only symptom. It can be deduced from the result that knowledge of the symptoms of Covid-19 is high in the study area however, there is need for continuous enlightenment to achieve 100% knowledge of the symptoms among stakeholders in public schools in the study area given the fact that ignorance of the few can lead to unquantifiable damage in the study area.

*Mode of Covid-19 Transmission*

Understanding the mode of transmission of any disease is imperative to curtailing its spread. Covid-19 is said to be very contagious and spread quickly. The result of the field survey on transmission mode presented in figure 4 reveals that 55% of the respondents were aware that Covid-19 transmits through all of the following ways: contact with an infected surface area, through droplets from an infected person, through air when an infected person sneezes in close proximity. The result also shows that 21% thought transmission can only occur through contact with an infected surface area while 10% thought transmission can only occur through air.

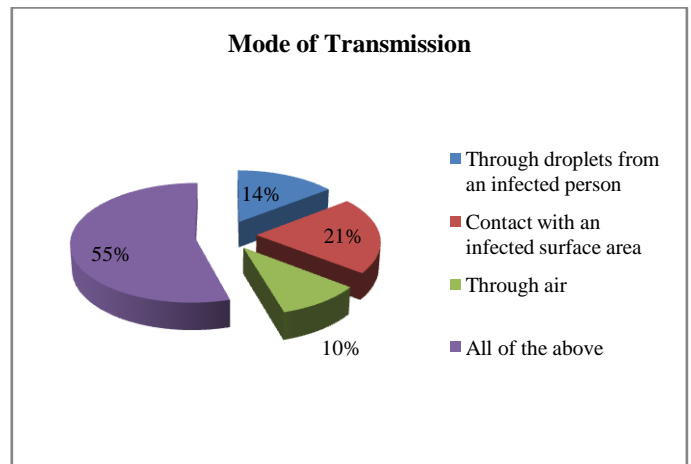


Figure 4: Mode of Transmission of Covid-19 in the Study Area

This implies that about 45% of the respondents in the study believed that Covid-19 transmits through one particular way. This is erroneous and calls for more education on various mode of transmission in public schools in the study area.

*Covid-19 Preventive Measures*

The whole essence of training teacher/educational managers before reopening of schools was to prevent spread of Covid-19 generally and among students, teachers and non-teaching staffs (school stakeholders) in particular. Figure 5 shows the known preventive measures in the study area.

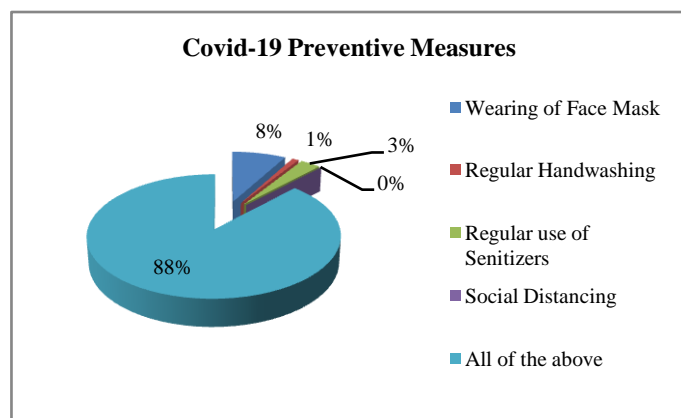


Figure 5: Preventive Measures of Covid-19 in the Study Area

The knowledge of preventive measures among students and staffs in public schools in the study area as presented in figure 5 reveals that 88% were aware that preventive measures include wearing of face mask, regular hand washing, regular use of sanitizers, and social distancing helps. Only 8% and 3% thought wearing of face mask only, and regular use of sanitizer only helps. This implies that majority are aware that covering their mouth and nose with face mask/tissue especially when coughing or sneezing; cough or sneeze into your flexed elbow if without tissue, avoid touching eyes, nose, and mouth with unwashed hands, and void close contact with people who are sick limit the spread of the virus. Based on this result, it can be deduced that knowledge of preventive measures of Covid-19 is high in the study area however; the remaining 12% with very limited knowledge of preventive measures posed a threat to effective management of the pandemic. This calls for more enlightenment campaign on covid-19 preventive measures in public schools in the study area.

*Availability of Sanitation and Hygiene Infrastructure in Public Schools and Compliance Level with Covid-19 Protocol by School Administration*

The study sought to determined availability of hygiene and sanitation infrastructure in public schools in the study area, as well as the level of compliance with Covid-19 protocol on safe school reopening by public school in the study area. The result of the field survey is presented in table 2

TABLE 2: Availability of Sanitation and Hygiene Infrastructure and Compliance Level with Covid-19 Protocol by in Public Schools

Availability of Sanitation & Hygiene Infrastructure in Schools	Yes	No
Washrooms	15	85
Toilets	70	30
Hand washing stations	100	0
Water facilities	30	70
Waste disposal facilities	30	70
Sanitizers/Soaps/Detergents	45	55
Covid-19 Temperature screening gadget	15	85

Compliance Level with Covid-19 protocol by School Administration	Yes	No	
Fumigation before re-opening after lockdown	31	69	
Has the school ever been fumigated	33	67	
Separate toilets for boys and girls	56	44	
Adequate clean water	30	70	
Regular disinfection of surfaces (classrooms, surfaces, desks, chairs, toys) at least once per week	37	73	
Does the school post signs of hand and respiratory hygiene practices?	15	85	
Does the school ensure that waste is removed daily and disposed safely?	15	85	
Student/ pupil are taught how to behave and protect themselves from covid-19 by your teachers?	100	0	
Physical Distancing		Yes	No
Is social distancing practiced in your school?	28	72	
If yes, indicate, is it 2 meters apart?	11	89	
Do you implement outdoor learning?	17	83	
Do you alternate attendance?	34	66	
Does your school operate platooning (morning and afternoon sessions?)	13	87	
Does your school adopt flexible schedules?	24	76	
Do you adopt distance learning?	0	100	

Source: Authors' Field Survey, 2021

The information in table 2 reveals that 85% of the sampled public schools did not have washrooms, 30% did not have toilet facilities, 70% did not have running water (e.g tap/boreholes) and waste disposal facilities such as waste bins/containers. The result also shows that 55% did not have sanitizers/soaps/detergents for hand washing while 85% did not have Covid-19 temperature screening gadgets. These show that managers of public schools in the study area did not plan adequately for the safe school reopening and therefore have failed to comply with some aspect of the Covid-19 protocol or guidelines. However, in all the schools, hand washing containers were available accounting for 100%. This finding collaborated with Dada & Amosu (2021), where over 90% of the pupils in Ogun state reported that their school provides them with a place for washing hands.

Furthermore, the result of the study as presented in table 2 shows that only 31% of the schools were fumigated prior to reopening after the covid-19 lockdowns, 67% has never been fumigated even after reopening while only 37% have experienced regular disinfection of surfaces (surfaces, desks, chairs, toys) at least once per week; and 85% does not have post signs of hand and respiratory hygiene practices and does not ensure that waste is removed daily and disposed safely. The result also shows that all students/ pupils were taught (100%) on how to behave and protect themselves from covid-19 by their teachers. This tends to agree with Dada & Amosu (2021), who asserts in their study in Ogun state that 91.1% of the pupils reported that they were given education on covid-19 by their school.

The result of the field survey on other covid-19 control parameters in the study area show that 72% did not complied with social distancing leaving the compliance level at only 28% only. Of the 28% that observed social distancing, only 11% maintained the two-meter apart as outlined in the guideline for the safe reopening of schools in Nigeria after covid-19 lockdown. In comparison with a similar study in Ogun state, Dada & Amosu (2021), reported that 73.9% of the pupils asserted that social distancing is maintained in their classes by the help of their class teachers. The information in table 2 also reveals that 83% did not complied with outdoor learning, 66% did not complied with alternate attendance, 87% did not complied with platooning (morning and afternoon sessions), 76% and 100% did not complied with adoption of flexible schedules and distance learning, as advised/highlighted in the covid-19 protocol for safe school activities in Nigeria. Based on these findings, it can be inferred that compliance level with covid-19 protocol for safe reopening of public schools in the study area was very low.

#### IV. CONCLUSION AND RECOMMENDATIONS

The main aim of the Federal Ministry of Education guidelines on safe reopening of schools and learning facilities after Covid-19 pandemic lockdowns was to ensure adequate preparedness of schools and learning facilities for reopening and resumption of academic and other auxiliary activities without placing the health, safety, and security of learners, teachers, administrators and other educational personnel at risk. This study assessed the compliance level of public schools on these guidelines. Based on the findings, it can be seen that public schools in Makurdi town of Benue state falls short of the stipulated guidelines and therefore posed a serious risk of the pandemic in the study area. The study concluded that public schools should comply with the covid-19 protocol for safe learning and teaching processes. The following recommendations are put forward based on the findings of the study; the UBEC, State Ministry of Education and civil society organisations should embark on regular awareness campaign to sensitize pupils/students, teachers and non-teaching staff on emerging issues of covid-19. They should provide the necessary hygiene and sanitation infrastructure that will improve compliance with the Covid-19 guidelines in public schools as well as encourage and support teachers to participate in training programmes in order to be acquainted with knowledge of preventing the spread of covid-19.

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