

## Compliance with school-based social distancing practices among teachers and head teachers during coronavirus disease 2019 pandemic in vocational enterprises institutes in abuja, Nigeria

<sup>1</sup>Arah, A. S., <sup>2</sup>Abdulhamid, U. <sup>3</sup>Adamu, D. & <sup>4</sup>Musa, Y. S.

<sup>1</sup>Department of Automobile Technology,  
Vocational Enterprises Institute, Karshi, Abuja, Nigeria

<sup>2</sup>Entrepreneurship Development Centre,  
College of Administrative and Business Studies, Potiskum, Nigeria

<sup>3</sup>Department of Mechanical and Aerospace Ground Engineering,  
Air Force Institute of Technology, Kaduna, Nigeria

<sup>4</sup>Department of Automobile Technology Education,  
Federal College of Education (Technical), Gusau, Nigeria

Email: [abuyusraarah@gmail.com](mailto:abuyusraarah@gmail.com)

\*\*\*

**Abstract:** The study ascertained the level of compliance with school-based social distancing practices among teachers and head teachers during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria. Two research questions were raised to guide the study and one hypothesis was formulated and tested at .5 level of significant. The research design used for this study was the descriptive survey research design, specifically, using cross-sectional study. The population of the study was 154 respondents consisting of 91 male and 63 female teachers. Total population sampling technique was used to select the whole population of the study. The instrument used for data collection was compliance with School-Based Social Distancing Practices Scale (S-BS DPS). The reliability indices of the instrument were found to be .88 and .91 using Cronbach Alpha statistical method. The study employed the use of mean to answer the research questions and Analysis of Variance (ANOVA) to test the null hypothesis using Statistical Package for Social Sciences (SPSS) version 25. Findings revealed that, teachers complied with 6 items and failed to comply with 1 item while head teachers complied with 7 and failed to comply with 5 items on the school-based

social distancing practices scale. The study recommended that, the education secretariat of the Federal Capital Territory, Abuja should enforce the full compliance with school-based social distancing practices among head teachers during COVID-19 pandemic

**Key words:** Compliance, Coronavirus, Disease, Social, Distancing, Teachers and Head Teachers

### INTRODUCTION

Coronavirus disease 2019 also called COVID-19 is an infectious disease caused by a newly discovered coronavirus. The COVID-19 is known to cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS) (American Academy of Family Physicians, 2019). According to World Health Organization (2020), the COVID-19 spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. In an attempt to contain the spread of COVID-19, most governments around the world have temporarily closed educational institutions such as school.

School is socially dense environments where students congregate for many hours of the day striving to achieve a certain goal. School closure policies met with heavy criticism from the public within and outside Nigeria due to the associated loss of productivity. Sadique *et al.* (2020) indicated that, school closure during pandemic such as COVID-19 could have a negative economic impact and thus, it is potentially a costly intervention for countries to impose. Although, research is still being conducted on the issue, it is unclear how beneficial school closure is with regard to slowing or minimizing the transmission of COVID-19 pandemic on local and national scales. In fact, the efficacy of school closure at preventing disease spread is unknown in general because school closure is often confounded by increased circulation of children outside of school which is difficult to handle (Chao, Halloran & Longini, 2019). In the management of COVID-19 pandemic, it will often be prudent to employ procedures and interventions that will ensure or create conditions of school-based social distancing.

School-based social distancing is deliberately increasing the physical space between people to avoid spreading illness in schools. Hensley (2020) described school-based social distancing as a set of non-pharmaceutical interventions or measures taken to prevent the spread of contagious disease such as COVID-19 in schools by maintaining a physical distance between people by reducing the number of times people come into close contact with each other. It involves keeping a distance of six feet (two meters) from others and avoiding gathering together in large groups of students. According to Chen *et al.* (2020), social distancing is the most effective strategy to reduce the transmission of COVID-19. Social distancing seeks to reduce the effective number of contacts between individuals within a community, and have been shown via post hoc analysis to ameliorate the impacts of previous influenza pandemics, e.g., the 1918 Spanish influenza pandemic (University of Minnesota, 2020).

School-based social distancing practices are enforced teachers and head teachers.

Teachers are bedrock of any sound educational system just as education is to any developed nation. As schools are reopened after the forced lockdown, teachers are tasked to comply with the school-based social distancing practices to curb the transmission of COVID-19 pandemic. According to Grubic *et al.* (2020), teachers need to comply with the school-based social distancing practices such as avoiding students' congregation during laboratory/workshop activities, dividing classes into smaller groups, moving desks apart, and cancelling classes that bring together students from different classrooms in order to lower the transmission of COVID-19 pandemic in schools. Brooks *et al.* (2020) stressed that, complying with the school-based social distancing practices should not be adhered by both teachers and head teachers. Head teachers are educational professional trained to pilot the affairs of school system. Sarah *et al.* (2020) noted that, head teachers need to comply with the school-based social distancing practices such as cancelling assembly, closing of playground, shortening school days per week: 3 days instead of 5, cancelling fieldtrips, and cancelling afterschool activities in order to lower the transmission of COVID-19 pandemic in schools. Zumla *et al.* (2010) confirmed that, the effectiveness of school-based social distancing practices in curbing the transmission of COVID-19 pandemic could only be achieved with teachers' and head teachers' compliance.

Compliance could be seen as the act of conforming in fulfilling certain requirements. Merriam-Webster Dictionary (2021) defined compliance as the act or process of complying to a desire, demand, proposal, or regimen or to coercion. It is expected of teachers and head teachers to comply with the school-based social distancing practices to curb the transmission of COVID-19 pandemic. Rully *et al.* (2020); Paola and Imran (2020) observed that, compliance with social distancing is needed in order to reduce the spread of viruses

that are transmitted from person to another. Since social distancing is crucial in curbing the transmission of COVID-19, it is important to know whether individuals will effectively comply with the practice. University of Minnesota. (2020) stressed that, the current circumstances of COVID-19 pandemic are unprecedented and the compliance rate of school-based social distancing over an extended period of time is unknown. Hence, this study sought to provide empirical evidence of the compliance with school-based social distancing practices among teachers and head teachers during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria.

### Statement of the Problem

School is a social structure designed to provide essential teaching and learning services aimed at training students with the right attitudes, knowledge and skills to function productively in the society. Unfortunately, the novel COVID-19 pandemic causes high social and economic costs for school system due to closures. According to United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020), the nationwide closures of schools is impacting over 89% of the world's student population. When schools shut down, more children are recruited into militias, sexual exploitation of girls and young women rises, teenage pregnancies become more common, and child labour grows (Uscher-Pines, 2018). School-based social distancing practices is currently considered the most effective countermeasure against the rapid transmission of COVID-19 in schools. Ridenhour *et al.* (2020) confirmed that, by utilizing school-based interventions such as social distancing practices, lives and economic losses could be minimized, thereby reducing concerns regarding the transmission of COVID-19. Zumla *et al.* (2010) confirmed that, the effectiveness of school-based social distancing practices in curbing the transmission of COVID-19 pandemic could only be achieved with teachers' and head teachers' compliance. Hence, this study sought to provide empirical evidence of the compliance with school-

based social distancing practices among teachers and head teachers during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria.

### Aim and Objectives of the Study

The aim of the study was to ascertain the level of compliance with school-based social distancing practices among teachers and head teachers during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria. Specifically, the objectives of the study sought to ascertain the level of:

1. Compliance with school-based social distancing practices among teachers during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria.
2. Compliance with school-based social distancing practices among head teachers during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria.

### Research Question

The following research questions were raised and answered:

1. What are the level of compliance with school-based social distancing practices among teachers during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria?
2. What are the level of compliance with school-based social distancing practices among head teachers during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria?

### Hypothesis

The following null hypothesis was stated and tested at .05 level of significant:

**HO<sub>1</sub>:** There is no significant difference between the mean responses of male and female teachers on the level of compliance with school-based social distancing practices during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria.

### Methodology

The research design used for this study was the descriptive survey research design, specifically,

using cross-sectional study. Maninder (2016) described cross-sectional study as the type that involves collection of data from a population at one specific point in time. This design is considered suitable for this study because, it enables the researcher to ascertain the level of compliance with school-based social distancing practices among teachers and head teachers during COVID-19 pandemic at the same time. The population of the study was 154 respondents consisting of 91 male and 63 female teachers from the six area councils in Abuja, Nigeria. Total population sampling technique was used to select the whole population of the study. The instrument used for data collection was compliance with School-Based Social Distancing Practices Scale (S-BSDPS) by Arah *et al.* (2020). The instrument was designed on five points rating scale of: Highly Complied, Complied, Not Complied, High Not Complied and Undecided, with numerical values of 5, 4, 3, 2 and 1 respectively. The instrument consists of two parts, A and B. Part A contained statement on school-based social distancing practices for teachers while Part B contained statement on school-based social distancing practices for head teachers. The reliability indices of the instrument were found to be .88 and .91 using Cronbach Alpha statistical method. The study employed the use of mean to answer the research questions and Analysis of Variance (ANOVA) to test the null hypothesis using Statistical Package for Social Sciences (SPSS) version 25. Decision on the research questions was based on real limit of numbers while decision on the hypothesis was based on comparing the generated p-value and the stated level of significance (.05).

**Results:**

**Research Question One**

What are the level of compliance with school-based social distancing practices among teachers during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria?

**Table 1: Mean Responses of Male and Female Teachers on the Level of Compliance with**

**School-Based Social Distancing Practices during COVID-19 Pandemic in Vocational Enterprises Institute in Abuja, Nigeria**

N1=91, N2=63

S/N	Items	$\bar{X}_1$	$\bar{X}_2$	$\bar{X}_A$	Remark
1.	Avoiding students' congregation during laboratory/workshop activities	4.08	3.81	3.95	Complied
2.	Dividing classes into smaller groups	4.04	4.12	4.08	Complied
3.	Moving desks apart	4.02	3.94	3.98	Complied
4.	Cancelling classes that bring together students from different classrooms	4.04	4.02	4.03	Complied
5.	Rearranging classroom to keep students further apart	4.04	3.98	4.01	Complied
6.	Limiting group activities and interaction between classes	3.92	4.02	3.97	Complied
7.	Holding classes outdoors	3.02	3.22	3.12	Not Complied

**Keys:** N<sub>1</sub> = Numbers of Male Teachers, N<sub>2</sub> = Numbers of Female Teachers,  $\bar{X}_1$  = Mean of Male Teachers,  $\bar{X}_2$  = Mean of Female Teachers,  $\bar{X}_A$ =Average mean of Male and Female Teachers.

Table 1 revealed that, 6 out of the 7 items had average mean values between 3.95 to 4.08 while the remaining 1 item had average mean value of 3.12. This indicated that, teachers in Vocational Enterprises Institute in Abuja, Nigeria complied with 6 items and failed to comply with 1 item on the school-based social distancing practices scales.

**Research Question Two**

What are the level of compliance with school-based social distancing practices among head teachers during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria?

**Table 2: Mean Responses of Male and Female Teachers on the Head Teachers' Level of Compliance with School-Based Social Distancing Practices during COVID-19 Pandemic in Vocational Enterprises Institute in Abuja, Nigeria**



S/N	Items	$\bar{X}_1$	$\bar{X}_2$	$\bar{X}_A$	Remark
8.	Cancelling assembly	2.08	2.26	2.17	Not Complied
9.	Closing of playground	4.04	4.22	4.13	Complied
10.	Shortening school days per week	2.20	2.26	2.23	Not Complied
11.	Cancelling fieldtrips	4.14	4.18	4.16	Complied
12.	Cancelling afterschool activities	4.04	4.10	4.07	Complied
13.	Reducing school activity calendar	2.92	2.44	2.68	Not Complied
14.	Altering school schedules to prevent mixing	3.92	4.01	3.97	Complied
15.	Limiting access to visitors from outside the school district	3.92	3.96	3.94	Complied
16.	Limiting movement within the school	2.04	2.14	2.09	Not Complied
17.	Discouraging face-to-face meetings in schools	3.80	4.00	3.90	Complied
18.	Cancelling all extra-curricular activities	4.12	4.18	4.15	Complied

Table 2 revealed that, 4 out of the 11 items had average mean values between 3.90 to 4.16 while the remaining 7 item had average mean value between 2.09 to 2.68. This indicated that, head teachers in Vocational Enterprises Institute in Abuja, Nigeria complied with 7 and failed to comply with 5 items on the school-based social distancing practices scales.

### Hypothesis One

There is no significant difference between the mean responses of male and female teachers on the level of compliance with school-based social distancing practices during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria.

**Table 3: Analysis of Variance for the Test of Significant Difference Between the Mean Responses of Male and Female Teachers on the Level of Compliance with School-Based Social Distancing Practices during COVID-19 Pandemic in Vocational Enterprises Institute in Abuja, Nigeria**

Source	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.067	1	.067	2.452	.121

Within Groups	2.186	80	.027
Total	2.253	81	

Table 3 revealed that, Significant (P) value is .121 which is greater than .05. This implied that, there is no significant difference between the mean responses of male and female teachers on the level of compliance with school-based social distancing practices during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria. Hence, hypothesis one was retained.

### Discussion of Findings

Findings on the s the level of compliance with school-based social distancing practices among teachers during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria revealed avoiding students' congregation during laboratory/workshop activities, dividing classes into smaller groups, moving desks apart, cancelling classes that bring together students from different classrooms, rearranging classroom to keep students further apart, limiting group activities and interaction between classes, were complied with and holding classes outdoors was not complied with. This implied that, teachers in Vocational Enterprises Institute in Abuja, Nigeria complied with school-based social distancing practices during COVID-19 pandemic. The findings concurs with the findings of Masters *et al.* (2020) on social distancing in response to the novel COVID-19 in the United States that revealed about two-thirds of participants (65.0%) reported practicing more social distancing compared to before the COVID-19 outbreak. The educational implication of the findings is that, teachers in Vocational Enterprises Institute in Abuja, Nigeria were contributing in minimizing the transmission of COVID-19 by complying with school-based social distancing practices. This could guarantee a safe learning environment to achieve effective learning.

Furthermore, the Analysis of Variance for the test of significant difference between the mean responses of male and female teachers on the

level of compliance with school-based social distancing practices during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria revealed not statistical significant different. This implied that, both male and female teachers in Vocational Enterprises Institute in Abuja, Nigeria complied with school-based social distancing practices during COVID-19 pandemic. This finding is in harmony with the finding of Masters *et al.* (2020) on social distancing in response to the novel COVID-19 in the United States that revealed no statistically significant differences in social distancing behaviors by gender, urbanity, race, monthly family income, or political affiliation. The none significant difference between the mean responses of male and female teachers could be due shared similarities in their behavior towards COVID-19.

Findings on the level of compliance with school-based social distancing practices among head teachers during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria revealed: closing of playground, cancelling fieldtrips, cancelling afterschool activities, and altering school schedules to prevent mixing. Others include limiting access to visitors from outside the school, discouraging face-to-face meetings in schools and cancelling all extra-curricular activities were complied with and cancelling assembly, shortening school days per week, reducing school activity calendar, and limiting movement within the school were not complied with. This implied that, head teachers in Vocational Enterprises Institute in Abuja, Nigeria do not adequately comply with school-based social distancing practices during COVID-19 pandemic. The finding is in agreement with the finding of Sas (2020) on compliance with social distancing rules during COVID-19 in Poland 2020 that revealed 15 percent of the society sees keeping the social distance rules was not something they followed. The educational implication of the findings is that, head teachers in Vocational Enterprises Institute in Abuja, Nigeria were not helping reasonably in minimizing the

transmission of COVID-19 by violating some of the school-based social distancing practices. This is considered a threat to a safe learning environment to achieve effective learning.

### **Conclusions**

Based on the findings from the study, it is concluded that insight into the level of compliance with school-based social distancing practices among teachers and head teachers during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria is provided. The study revealed not significant difference between the mean responses of male and female teachers on the level of compliance with school-based social distancing practices during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria. The results of this study are particularly important in developing effective strategies for enforcing the compliance with school-based social distancing practices among teachers and head teachers during COVID-19 pandemic in Vocational Enterprises Institute in Abuja, Nigeria. Though, the study is limited to the level of compliance with school-based social distancing practices among teachers and head teachers. There is need to ascertain the compliance level of student in order to generalize the findings of the study.

### **Recommendations**

Based on the findings from the study, the following recommendations were made:

1. The education secretariat of the Federal Capital Territory, Abuja, Nigeria should encourage teachers in Vocational Enterprises Institute in Abuja to hold large classes outdoors to lower the transmission of COVID-19 pandemic
2. The education secretariat of the Federal Capital Territory, Abuja should enforce the full compliance with school-based social distancing practices among head teachers during COVID-19 pandemic.

### **REFERENCES**

1. American Academy of Family Physicians (2019). *Coronavirus Disease 2019 (COVID-19)*. Retrieved 24th March, 2020 from: <https://familydoctor.org/condition/coronavirus/>.
2. Arah, A. S., Audu, R., Umar, I. Y. & Abdulkadir, M. (2020). Perception of technology education lecturers on school-based social distancing practices for curbing the transmission of corona virus disease in Niger state, Nigeria. *International Journal on Integrated Education*. 3(7), 146-151. DOI:<https://doi.org/10.31149/ijie.v3i7.517>.
3. Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N. & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet*, 395(23), 912–920. doi: 10.1016/S0140-6736(20)30460-8.
4. Chao, D. L., Halloran, M. E., & Longini, I. M. (2019). School opening dates predict pandemic influenza (H1N1) outbreaks in the United States. *Journal of Infection Disease*, 202(6), 877–80.
5. Chen, S., Yang, J., Yang, W., Wang, C. & Barnighausen, T. (2020). COVID-19 control in China during mass population movement at New Year. *Lancet*, 395(0226), 764-766. [https://doi.org/10.1016/S0140-6736\(20\)30421-9](https://doi.org/10.1016/S0140-6736(20)30421-9).
6. Grubic, N., Badovinac, S. & Johri, A. M. (2020). Student mental health in the midst of the COVID-19 pandemic: A call for further research and immediate solutions. *International Journal of Social Psychiatry*, 66(5), 517–518.
7. Hensley, L. (2020). *Social distancing is out, physical distancing is in - here's how to do it*. Retrieved 24th March, 2020 from: [https://en.m.wikipedia.org/wiki/Corus\\_Entertainment\\_Inc](https://en.m.wikipedia.org/wiki/Corus_Entertainment_Inc).
8. Maninder, S. S. (2016). Methodology series module 3: Cross-sectional studies. *Indian Journal of Dermatology*, 61(3), 261–264. doi: 10.4103/0019-5154.182410.
9. Masters, N.B, Shih, S.F., Bukoff, A., Akel, K.B., Kobayashi, L.C. & Miller, A.L. (2020) Social distancing in response to the novel coronavirus (COVID-19) in the United States. *PLoS ONE* 15(9): e0239025. doi:10.1371/journal.pone.0239025
10. Merriam-Webster Dictionary (2021). *Compliance*. Retrieved 25<sup>th</sup> January, 2021 from: <https://www.google.com/url?q=https://www.merriam-webster.com/dictionary/compliance&sa=U&ved=2ahUKEwjn2ozC8bPuAhU08uAKHYULBNkQFnoECAQQAg&usq=A0vVaw1ahkpSzc2qoK4tLqeq2Kex>
11. Paola, G. & Imran, R. (2020). *Compliance with social distancing during the COVID-19 crisis*. Retrieved 25<sup>th</sup> January, 2021 from: <https://voxeu.org/article/compliance-social-distancing-during-covid-19-crisis>
12. Ridenhour B. J., Braun, A., Teyrasse, T. & Goldsman, D. (2020). Controlling the spread of disease in schools. *PLoS ONE* 6(12): e29640. doi:10.1371/journal.pone.0029640
13. Rully, A.H., Tria, W., Hamid, M. & Susi, S. (2020). *Study on awareness of COVID-19, anxiety and compliance on social distancing in Indonesia during coronavirus disease 2019 (COVID-19) pandemic*. Retrieved 25<sup>th</sup> January, 2021 from:

<https://www.researchsquare.com/article/rs-44598/v1>

14. Sadique, M. Z., Adams, E. J. & Edmunds, W. J. (2008) Estimating the costs of school closure for mitigating an influenza pandemic. *BMC Public Health* 8.
15. Sarah, B., Sarah, G. & Olafur, S. P. (2020). Validation of the pandemic emotional impact scale. *Brain Behav Immun Health*, 4(4), 22-28. doi: 10.1016/j.bbih.2020.100161.
16. Sas, A. (2020). *Compliance with social distancing rules during COVID-19 in Poland 2020*. Retrieved 25<sup>th</sup> January, 2021 from: <https://www.statista.com/statistics/1183521/poland-compliance-with-social-distancing-rules-during-covid-19/>
17. United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020). *COVID-19 educational disruption and response*. Retrieved 24<sup>th</sup> March, 2020 from: <https://en.unesco.org/covid19/education-response>
18. University of Minnesota. (2020). *Leveraging virtual reality to improve compliance with social distancing*. Retrieved 25<sup>th</sup> January, 2021 from: <https://clinicalaffairs.umn.edu/umn-research/leveraging-virtual-reality-improve-compliance-social-distancing>
19. Uscher-Pines, J. (2018). School practices to promote social distancing in K-12 schools: review of influenza pandemic policies and practices (2018). *BMC Public Health*, 18:406. <https://doi.org/10.1186/s12889-018-5302-3>
20. World Health Organization (2020). *Coronavirus*. Retrieved 24<sup>th</sup> March, 2020 from: [https://www.who.int/health-topics/coronavirus#tab=tab\\_1](https://www.who.int/health-topics/coronavirus#tab=tab_1).
21. Zumla, A., Yew, W. & Hui, D. S. (2010). Emerging respiratory infections in the 21st century, An issue of infectious disease clinics. *Elsevier Health Sciences*, 24(4), 614-618.