

ADDRESSING THE CHALLENGES HINDERING COVID-19 PROTOCOL COMPLIANCE AMONG UNIVERSITY STUDENTS



SCAN ME

Oyinlola O. ADEBOLA  ^{1*}

Bunmi Isaiah OMODAN  ²

¹ University of the Free State, Faculty of Education, AdebolaOO@ufs.ac.za *Correspondent Author.

² Walter Sisulu University, Faculty of Education, bomodan@wsu.ac.za

Article history:

Submission 07 July 2022

Revision 16 September 2022

Accepted 25 November 2022

Available online 31 December 2022

Keywords:

University Students,
COVID-19 Regulation,
Complacency Measure.

DOI:

<https://doi.org/10.32936/pssj.v6i3.353>

Abstract

It has been observed that students do not adhere to COVID-19 regulations on campus despite various instructions from both government and university authorities for staff and students to maintain adequate COVID-19 protocols in universities. Therefore, this study explores the challenges faced by students that make them disregard COVID-19 protocols, such as wearing nose masks, hand sanitization, and social distancing. The study is located in an interpretive paradigm using a case study as a research design. The convenience sampling technique was used to select ten university students who responded to interview questions on the challenges that hinder them from complying with COVID-19 protocols. The study adopted thematic analysis (TA) as a qualitative tool to interpret and make meanings from the data generated. The study found that limited COVID-19 awareness on campus, health challenges among students, and lack of classroom capacity and personal protective equipment (PPE) are significant challenges. In contrast, the recommended solutions are stricter COVID-19 regulations, provision of PPE and spacious lecture rooms, and creating COVID-19 awareness/education. The study suggests that university management or authorities should provide strategies to make students adhere to the measures, provide PPE to alleviate students financially or socially and ensure adequate awareness of COVID-19 on campus.

1. Introduction

The effects of the COVID-19 global pandemic cannot be overemphasized as it affects every sphere of individual life, private and public sections in the world, including South Africa (Gondwe, 2020; UNICEF, 2021). The COVID-19 outbreak started in Wuhan, China, in late 2019, when thousands of Chinese died as a result of the disease before its spread to other parts of the world, including South Africa, in March 2020 (Gondwe, 2020). As stated by Omodan (2020), the emergency of the unknown caught every nation unaware. The only solutions were to declare a lockdown, stay at home, place an embargo on peoples' movement and subsequent work-from-home measures. All these regulations were recommended by the WHO (2020), which declared COVID-19 a pandemic.

The national lockdown in South Africa was announced in March 2020 with strict regulations and an immediate move to level 5.

Otherwise, anyone violating the rules would be punished (Nomani & Parveen, 2020). Again, every higher institution of learning in South Africa was closed and people worked from home until the recent move to the level-1 announcement was made towards the end of 2021 with an emphasis on why people should follow the COVID-19 regulations.

However, the advent of the pandemic led to a sudden paradigm shift in the education system in most countries, whereby teaching and learning had to move online without proper preparation. Meanwhile, most of these universities were not established/approved to run online programmes, nor did most of them, especially in Africa, have the resources to do so (Jimola & Ofodu, 2021; Oreku, 2021; Mugizi et al., 2021). But this unannounced pandemic forced education and other organizations to a new way of working online, which people neglected or thought was impossible. Besides the negative financial impact,

health implications and the loss of lives, COVID-19 affected the education sector in every aspect, especially in teaching and learning (Adigun et al., 2021; Jinadu et al., 2021). Because there was no indication that a pandemic of this nature would happen, many universities that never had the intention of running online teaching and learning suddenly found themselves in this situation, which means that both students and lecturers must find the means of communication to engage in teaching and learning.

The pandemic left some students stranded because they had no access to the internet and the internet of things (Omodan, 2020; Dube, 2020). Some had no technical knowledge of gadgets and were excluded from teaching and learning (Dube, 2020). Observations also revealed that lecturers who were not trained to teach online and depended on university resources such as gadgets and the internet, as well as lecturers who lived with their families, were hindered from teaching because of the lockdown. All these and more were the challenges associated with the COVID-19 pandemic regarding education, and one of the results among several is the low academic performance of university students. However, things are getting better as the world returns to normalcy and various authorities move to less restricted lockdowns. Also, the COVID-19 pandemic rate is reducing compared to 2020 or early 2021.

The relative normalcy experienced in recent times, especially on university campuses, gave room for fully vaccinated staff and students to access campus while adhering to the COVID-19 regulations such as wearing face masks, social distancing, and washing of hands are still mandatory (Unicef, 2020). The working from the home period was almost two years, and the assumption was that most people adjusted to not wearing a face mask outside their homes, unlike when on campus, where they were expected to be on face masks every time, even in the classroom. However, we observed that students seem to ignore or fail to adhere to these regulations on campus despite various instructions from the government and university authorities for staff and students to maintain adequate COVID-19 protocols to ensure a drastic reduction of COVID-19 infections.

Apart from the COVID-19 resultant challenges for university students across the globe, in South Africa, campuses have since reopened and are now facing new challenges. However, there is a lack of compliance with COVID-19 protocols among students. Despite various government and university authorities' instructions, this creates a heightened risk of infection on campus. Therefore, this study seeks to explore the challenges faced by university students during the COVID-19 level 1 lockdown in South Africa. This is done by understanding the barriers to compliance among students, assuming that universities will be

better placed to support their students to cope and maintain the necessary precautionary measures.

1.1. Research Objectives

Based on the above problem, the following research objectives were raised to guide the study:

- The factors responsible for the non-compliance of COVID-19 protocols among university students during level 1 lockdown.
- Strategies to ensure that university students obey the COVID-19 regulations while on campus.

2. Methodology

This section discusses the research methods employed to carry out this study. These were discussed in the other research paradigm, approach, design, participant selection techniques, and data analysis, followed by ethical considerations.

2.1. Research Paradigm

The study is lensed through the interpretivism paradigm (IP) to generate an in-depth understanding of a phenomenon in its real meaning (Kivunja & Kuyini, 2017). This is a qualitative type of research paradigm that believes that realities are multiple. In other words, Interpretivist as a research paradigm helps to have a deeper knowledge of how people socialize and assign different issues with diverse meanings within the social setting (Antwi & Hamza, 2015). However, with reference to Ponelis (2015), it is assumed that ontologically, the nature of reality is subjectively constructed through the understanding and meaning established by the people facing the problem. Therefore, the study relies on the participants' interpretation and meaning of the existing problem through critical engagement.

2.2. Research Approach

Qualitative research is often used to explore and understand people's beliefs, experiences, attitudes, or behaviours (Pratt et al., 2022). This study used a qualitative research approach to investigate how people experience and understand the phenomenon. This was considered appropriate because they are particularly well suited for exploring complex phenomena in-depth and in detail (Van den Berg & Struwig, 2017). Furthermore, Dana and Dumez (2015) agree that the qualitative approach allows researchers to establish trusting relationships with participants, which is important when investigating sensitive topics such as compliance or not compliance with COVID-19 protocols. The data collected through qualitative methods can provide rich and nuanced insights that would not be possible to

obtain through other research approaches. In this study, the case study was adopted to design the study.

2.3. Research Design

The current study adopts a case study (CS) as the research design for its appropriateness to work with special cases of a phenomenon. This is relevant for this study because it enables us to deal with the selected university and the specificness of COVID-19 protocol compliance. Numerous studies have found CS to be an effective means of collecting in-depth, detailed data, which is essential for understanding complex issues (Gentles et al., 2015). In addition, CS allows the development of a rich, contextualised understanding of the phenomenon being studied (Harrison et al., 2017). The current study will understand how the selected university has complied with COVID-19 protocol compliance among students.

2.4. Research Participant and Selection

Techniques

The study comprised ten participants (university students) on campus who had spent at least one month on the university premises after the COVID-19 level one lockdown in January 2022. Apart from the certainty that they were students of the selected university, there were no other criteria for choosing except for the fact that they must be on campus. The convenience Sampling Technique (CST) was adopted for the study because of its convenient nature, affordability, proximity of the researcher to the sample population and easy access. It is a nonprobability sampling that is mostly used in qualitative research (Etikan, Musa & Alkassim, 2016). The motive behind CST is the opportunity it offers the researcher and the idea of selecting relevant participants from within a certain environment, such as a workplace and neighbourhood (Suen, Huang, & Lee, 2014). What has also been considered most important in the selection process is the fact that the participants are homogenous in nature, following the argument of Sharma (2017).

2.5. Data Analysis

The present study adopted thematic analysis (TA) as a qualitative tool to interpret and make meanings from the data generated. TA is a well-known method of data analysis that focuses on identifying, analyzing and interpreting patterns in qualitative data collection. According to Clarke and Braun (2013) and Clarke and Braun (2006), for a proper interpretation of data obtained through TA, the researcher must go through the following six steps of data analysis: getting to understand that data, which means that the researcher should have in-depth knowledge of the information through study; assigning codes to the data which have to do with the researcher categorizing data according to the meaning;

searching for themes from the data generated to see where they rightly belong; reviewing articles, and defining and reporting articles. Researchers also analyzed each line of interview text by reading and re-reading to identify repeated words, phrases, or incidents as well as incidences that contradict other people's accounts, to generate new ideas. The entire process enables researchers to understand what was said, why it was said and what it might mean, which were contained in the analysis below.

2.6. Ethical Consideration

Ethical consideration is the principles, guidelines, or rules that a researcher must follow when conducting qualitative research where people are involved (Arifin, 2018). In relation to the above, every participant in the study was given a consent form to read and be informed about what the study was about. It is therefore left for the participant to be part of the study or opt-out after they have gone through the consent form and signed that they are interested (Benton, Coppersmith & Dredze, 2017). However, the participants have the right to withdraw from the study whenever they feel uncomfortable, and they are assured of confidentiality; their names will not be revealed to anyone both during and after the study. The following were how they were coded and represented in the data presentation: Students 1 to 10 were named participants A to J.

3. Presentation of Data

This section presents the data analysis and interpretation according to the objectives of the study, factors contributing to the non-compliance with COVID-19 regulations among university students and the suggested solutions identified by the participants. Each objective has two sub-objectives. The themes are sorted and interpreted according to the participant's conversation on non-compliance to COVID-19 students on campus.

3.1. Analysis and Presentation of Objective

One

This section discusses the data and findings associated with factors of non-compliance with COVID-19 regulations among university students. The three identified challenges are limited COVID-19 awareness on campus, health challenges among students, limited classroom capacity, and PPE.

3.1.1. Objective 1, Theme1: Limited COVID-19 Awareness on Campus

There has been massive awareness of COVID-19 from the government since the beginning of the disease and how people could stay safe by setting out regulations that should be strictly

adhered to, such as social distancing, hand sanitizing, wearing face masks and washing their hands constantly when in public (South African Government, 2020; 2021). Despite this observation, the data collected for this study show that students sparingly comply with the COVID-19 protocols of the university. The conversations below from participants confirm our argument.

Participant B: "Not clear information regarding the COVID regulations. Some students do not have data to view all the information sent to the university emails."

Participant A: "The mentality that the shot or vaccination prevents you from getting COVID-19."

Participant G: "Not being knowledgeable about compliance regulations the Universities have in place; hence they don't comply."

Participant C: "The naiveness of the students who believe it's not there and can decide not to be vaccinated."

Participant F: "Moving to level 1 makes people think that the risk of COVID-19 is no longer there and because of that, they think that without being vaccinated, they are safe from COVID-19."

Participant E: "The fact that as long as I haven't gotten sick or know someone who has COVID, I'm safe."

Participant I: "The rumor that the vaccine could be fatal, and all the conspiracy theories surrounding it, sparks the fear in students."

Participant C: "Sanitizing hands whenever students enter the lecture halls, libraries etc., is time-consuming. Some students end up not sanitizing their hands."

Participant H: "With regards to non-compliance, I think the students' populace has never been fully convinced by the seriousness of COVID-19; thus, they perceive the regulations as an inconvenience to their normal lives and remember that universities are a microcosm of societies in which we come from so the behaviours of our societies are most likely to be transmitted into the university through the students. If I come from a community where roaming around wearing a face mask is a strange thing, it will also be strange for me to roam around the university premises wearing a face mask."

The above discussions confirmed that the university needs to create more awareness of COVID-19 regulations everywhere around the campus and the implications of non-compliance. For

instance, according to Participant H, universities are a social environment where knowledge is disseminated and should be a place where students are informed about the importance of adhering to COVID-19 regulations. The university as an academic setting should be an avenue where people are educated, and every rumour regarding the pandemic is clarified, as stated by Participants I, A and E. According to these participants, students walk around on campus freely without wearing face masks because they do not know the university regulations on COVID-19; hence they see no reason to comply. This revelation is contrary to the argument by Domènech-Montoliu et al. (2021) that the virus spreads so fast in social gatherings such as universities, with a recommendation to track down unnecessary social contact. This claim makes universities a vulnerable and accessible place for COVID-19 to spread among the students and infect other people outside the campus.

Additionally, Participant F added that some students believe that since the government eased the national COVID-19 regulations to level 1, it is an indication that the possibility of getting the pandemic is negligible. Hence, it is safe, and the need to adhere to regulations is not necessary. This finding is supported by the argument of Sebong et al. (2021) that students are mostly neglecting the COVID-19 protocols as a result of youthful exuberance.

3.1.2. Objective 1, Theme 2: Health Challenges Among Students

The data collected shows that some students have various health issues they are battling with. On the part of COVID-19, organs such as the lungs, heart and brain stand the risk of long-term health complications (Ogen, 2020; Salehi, Reddy, & Gholamrezanezhad, 2020). In other words, after the government lifted the ban on face-to-face classes, some students could not attend classes for health reasons. Below are the conversations from participants' views on adhering to COVID-19 regulations while on campus:

Participant C: Some students find it difficult to wear masks for an extended period due to their health challenges.

Participant A: They say that the face mask makes them suffocate when they put them on.

Participant E: The heat from the mask makes it hard to talk and sweat is created after some time under your eyes.

Participant G: It also affects our eyes. When we breathe, the hot air goes straight into our eyes, making them tired, red and sore.

The above statements indicated why some students failed to comply with face masks. For participants A and G, it is believed that students made flimsy excuses just to ignore the use of masks and that it chokes them and affects their eyes. This may be a result of the fact that the use of masks usually interferes with the use of eyeglasses. We then argue that the university has to make students aware of the broader health problems associated with not wearing masks and adhering to other safety measures. Students, especially the ones with health challenges, will see why they should stick to the regulations instead of exposing themselves to more complicated health problems, as indicated by (Inzaule et al., 2021). I think there is a need for the university to let students be aware of the consequences of this action through constant awareness within the campus. Participants E and G are of the view that wearing masks as one of the COVID-19 regulations makes it difficult to talk, creates heat, and affect the eyes; all these problems could be addressed if the university created awareness of how the challenges could be resolved since the university has clinic/health workers. This finding is consistent with the findings and arguments that most COVID-19 measures are uncomfortable with human health (Rossi et al., 2020; Suárez-González et al., 2021).

3.1.3. Objective 1, Theme 3: Lack of Classrooms Capacity and Personal Protective Equipment

Lack of classroom capacity and provision of personal protective equipment (PPE) has been identified as one of the factors responsible for non-compliance to COVID-19 regulations by university students. Below are the conversations from the participants:

Participant D: "Well, there are factors responsible for the non-compliance to COVID-19 regulations. First and foremost, institutions have come back to face-to-face learning and most institutions don't have enough space to cater for their students. Even the sanitiser stand is not in all classrooms."

Participant J: "For instance, in my university, lecture halls are small and accommodate a large number of students, which leads to no social distancing."

Participant C: "Another factor is the limited resources for COVID-19. For instance, there are limited sanitizing points."

It is evidenced from the participants above that some university students failed to comply with COVID-19 regulations due to limited large classrooms and provision of PPE as expected. Inconducive in this context refers to the small size of classrooms to accommodate many students who must observe social distancing.

For this reason alone, it becomes a problem to maintain social distancing and even use face masks (Ng & Or, 2020). Again, lack of PPE is a challenge in the university, and students take that as an opportunity to disregard COVID-19 and university regulations. Personal protective equipment such as masks, sanitisers and running tap water should not be scarce on the campus, coupled with the fact that most students are from poor backgrounds. For instance, most public places like bathrooms in South Africa are full of condoms. This is because the government wants to reduce the rate of HIV/AIDS and early pregnancy; hence they make this protective measure available. This is what exactly the university is supposed to imitate. Unfortunately, the university is located in a rural community where most of them may not have the money to buy PPE from time to time. Participant D pointed out that students did not comply with COVID-19 regulations such as wearing masks, sanitizing hands and social distancing due to classroom capacity and lack of PPE. Hence, this is not far from Participant C's opinion that limited resources in terms of sanitizing points in the university are missing. This indicates that the university is relenting in reducing the rate at which the virus spreads so fast among students (Inzaule et al., 2021; Gupta et al., 2020). The researchers also agree with the claim above that lack of PPE and classroom capacity is a problem that the university must check.

3.2. Analysis and Presentation of Objective Two

This section discusses the possible solutions to the identified responsible factors of non-compliance to COVID-19 regulations among university students. The three suggested solutions are stricter COVID-19 regulations, provision of PPE, spacious lecture rooms, and creating COVID-19 awareness/education.

3.2.1. Objective 2, Theme 2: Enforcing Stricter COVID-19 Regulations

Students in the selected university have called upon the government agencies and other stakeholders on the campus to make COVID-19 regulations in and around the campus stricter as this would make everyone on campus, especially the students, adhere to COVID-19 regulations. Below are the participants' statements:

Participant A: "Have people stationed at university gates and lecture rooms who will check for masks and sanitisers."

Participant C: "Report students who don't wear a face mask to the SRC President. Students who decide not to follow COVID-19 regulations must be given a

fine or punished e.g., by paying a certain amount to the university."

Participant I: "The president should bring back stricter rules, hence introduce a law that if you are found without a mask around campus, there will be a certain penalty."

Participant F: "I think a system should be created, for example, scanning student cards to give out a warning first-time they find you without wearing a mask."

Participant B: "There should be a fine just like the previous year; there were people reminding students to wear their masks correctly; this time around, they should fine students."

Participant D: "Universities should have COVID-19 compliance officers (in the form of peer educators) who'd ensure that there's compliance beyond the entry".

Participant J: "The university should hire people who will ensure that students wear their face masks and comply at all times because all the signs of COVID-19 are there, yet, most students are not following all the measures."

From the above statements, there is a need for the university to enforce stricter rules and regulations regarding COVID-19 on campus. A university is a place of knowledge, a community made up of learned people and students, and as such, it should be a place where COVID rules are most adhered to. In other words, enough human capacity and knowledge could be explored. As suggested by Participants A, D, C and J, the university could hire or get compliance officers who would monitor and remind students to adhere to COVID 19 regulations. This means they will be working for the university authorities hence, enforcing students to keep to COVID rules while indirectly reducing the spread of the virus on campus. They believed that if enforcement officers were stationed at entrances within the campus and classrooms, this would make students aware and conscious of adhering to the regulations (World Health Organization, 2020). Participants B and I believed that imposing fines or level 5 lockdown rules in the university would make students comply because they are aware of the consequences if found guilty. However, they further suggested that for this to be effective, the university should publish the implications and make them accessible to every student. Participant F suggested installing technological gadgets that warn students when they flout COVID rules. The study agrees with the suggestions and believes that the university has all the needed resources to support the government in fighting COVID-19 by implementing stricter regulations on campus. We, therefore, argue that, since it is the university's role to create a safe and healthy environment that is conducive for teaching and

learning and especially for students, the university is bound to accommodate students' views to enable them to promote COVID-19 compliance policies.

3.2.2. Objective 2, Theme 2: Consistent Awareness on Campus

Since the onset of the COVID-19 pandemic locally and globally, there has been awareness via every platform to keep everyone informed on how to be safe from the virus. This awareness does not exempt any country, government agencies, or other relevant establishments. However, the statements below from participants seek enhanced social understanding:

Participant E: "The university can do health awareness every month whereby they educate/teach students more about this virus and the importance of why they should comply with it since they are in public spaces."

Participant B: "Educate the students about the possible danger of not adhering to COVID-19 and the risk of infecting others."

Participant C: "Universities are the abodes of scholars, so they should lead every conversation that surfaces in public. For instance, universities should lead the dialogues surrounding the myths and conspiracy theories of COVID-19 because in their absence, the less informed lead these conversations."

Participant I: "There should be weekly awareness whereby students participate in teaching other students about the importance of following the rules."

Participant D: "I believe institutions should educate their students more about COVID-19 regulations."

Participant F: "There should be more online teaching and learning and less face-to-face to decrease student access on campus."

Participant H: "Additional information about campus COVID-19 compliance can be included as part of contents to cover in certain modules."

Participant J: "The universities should put posters around campus lambasting these conspiracies instead of engaging and educating."

From the above conversations, it shows that there is a need for consistent awareness/education from the university to students, as indicated by participants B, E, I, H, and D. These students believed that if the university embarks on COVID-19 awareness occasionally, they will understand why it is essential for them to adhere to the regulations. Apart from creating awareness within the campus, the university being a source of information and correct knowledge could be imparted; they should go beyond the campus and even be a source of information to the environment.

With this form, there is a tendency that the virus spread would be reduced drastically (Nemat et al., 2021). This means that the university is one of the sources where all false information, such as chronic disease and suffocation received regarding COVID-19, could be corrected or countered, as suggested by Participant J. Meanwhile, Participant F added that to reduce the spread of the virus, the university should introduce less face-to-face and more online teaching and learning as this will decrease the number of people gaining access to the campus.

Contrary to these suggestions, Participant H believes in creating additional means of information that students have access to. Hence the student said making COVID-19 regulations part of the content in each module will help instill the fear of keeping to the rules. According to this participant, students retain information faster and longer if taught rather than seeing or being told. Moreover, there should be a well-known policy document from the university stating the necessary punishments for anyone who fails to comply, as suggested by Payne, Morgan and Piquero (2021) and regular communication, so they are aware when found guilty.

3.2.3. Provision of PPE to Students and Easy Access to Information

The WHO (2020) defined personal protective equipment as equipment that can be used to prevent the contamination of diseases or exposure to dangerous physical hazards or chemicals. According to the participants, PPE can be extended to cater to equipment such as hand gloves, masks, sanitizers, and others. So, providing PPE and access to information was suggested as a solution to the problem of compliance. To support this argument are the statements from participants in the study.

Participant D: "Let there be the provision of data for students who live and let the data be for all students not discriminating. For students' proper view of information regarding COVID compliances."

Participant C: "The school could also invest in moisturizing sanitizers. The ones they provide make the skin crack and irritable after multiple uses."

Participant J: "Institutions must make disposable masks available for students at no cost like they do with condoms. Only then would we start to see students observing all protocols practicing safe coexisting on campus".

Participant G: "The university should have more resources to deal with COVID-19. Social distancing should be implemented within lecturer rooms, and wearing face masks should be mandatory within the institutions."

To have access to information and be guided, participant D suggested that the university should ensure that off-campus students, that is, those that stay outside the campus, should be provided with data since those students on campus do not have a problem in this regard. Participant C added that the university should provide good quality sanitizers so students can always disinfect their hands. Participant G talked about resources such as bigger lecture halls that could allow social distancing and implementing compulsory wearing of masks before entering and while in lecture rooms. According to Participant J, PPE should be made free of charge for students and should be available everywhere. With these, students will adhere to COVID-19 regulations. From what the students have, it is clear what the university has to do to address the issue. Provision of PPE such as masks, sanitizing, and tap water should be available everywhere around the campus to promote student awareness and to reduce the rate at which covid spread among the students, as indicated by Participant G. This is in line with the argument of Cohen et al. (2020) that provision of PPE in public places should be prioritized.

4. Conclusion and Recommendations

This study explored the factors hindering university students from complying with COVID-19 measures on their campus and sorted transformative solutions jointly contracted by the participants who are university students. Therefore, the study concludes that limited COVID-19 awareness on campus, health challenges among students, limited classroom capacity, and PPE hinder students from adequately complying with and observing COVID-19 measures. We also conclude that enforcing stricter COVID-19 regulations, provision of PPE, spacious lecture rooms and creating COVID-19 awareness/education in the university community will go a long way in promoting COVID-19 compliance among university students. Based on this, the study recommends that university management or authorities ensure the provision of monitoring strategies to make students adhere to the measures. Universities should also provide PPE to alleviate students financially or socially, and awareness of COVID-19 and its efforts should be awakened on campus.

References

1. Kivunja, C., & Kuyini, A. B. (2017). Understanding and applying research paradigms in educational contexts. *International Journal of higher education*, 6(5), 26-41.
2. Adigun, I. O., Oyewusi, F. O., & Aramide, K. A. (2021). The Impact of COVID-19 pandemic 'lockdown' on reading engagement of selected secondary school students in Nigeria.

- Interdisciplinary Journal of Education Research, 3(1), 45-55. <https://doi.org/10.51986/ijer-2021.vol3.01.05>
3. Antwi, S. K., & Hamza, K. (2015). Qualitative and quantitative research paradigms in business research: A philosophical reflection. *European journal of business and management*, 7(3), 217-225.
 4. Antwi, S. K., & Hamza, K. (2015). Qualitative and quantitative research paradigms in business research: A philosophical reflection. *European journal of business and management*, 7(3), 217-225.
 5. Arifin, S. R. M. (2018). Ethical considerations in qualitative study. *International Journal of Care Scholars*, 1(2), 30-33.
 6. Benton, A., Coppersmith, G., & Dredze, M. (2017). Ethical research protocols for social media health research. In *Proceedings of the first ACL workshop on ethics in natural language processing* (pp. 94-102).
 7. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
 8. Chanana, N. (2021). Employee engagement practices during COVID-19 lockdown. *Journal of Public Affairs*, 21(4), e2508.
 9. Cohen, J., & van der Meulen R. Y. (2020). Contributing factors to personal protective equipment shortages during the COVID-19 pandemic. *Preventive Medicine*, 141, 106263.
 10. Dana, L. P., & Dumez, H. (2015). Qualitative research revisited: Epistemology of a comprehensive approach. *International Journal of Entrepreneurship and Small Business*, 26(2), 154-170.
 11. Domènech-Montoliu, S., Pac-Sa, M. R., Vidal-Utrillas, P., Latorre-Poveda, M., Del Rio-González, A., Ferrando-Rubert, S., ... & Arnedo-Pena, A. (2021). Mass gathering events and COVID-19 transmission in Borriana (Spain): A retrospective cohort study. *PloS one*, 16(8), e0256747.
 12. Dube, B. (2020). Rural online learning in the context of COVID 19 in South Africa: Evoking an inclusive education approach. *REMIE: Multidisciplinary Journal of Educational Research*, 10(2), 135-157. <http://dx.doi.org/10.447/remie.2020.5607>
 13. Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4.
 14. Forget, A., Pearman, S., Thomas, J., Acquisti, A., Christin, N., Cranor, L. F., ... & Telang, R. (2016). Do or do not, there is no try: User engagement may not improve security outcomes. In *Twelfth Symposium on Usable Privacy and Security (SOUPS 2016)* (pp. 97-111).
 15. Gentles, S. J., Charles, C., Ploeg, J., & McKibbin, K. A. (2015). Sampling in qualitative research: Insights from an overview of the methods literature. *The Qualitative Report*, 20(11), 1772-1789.
 16. Gondwe, G. (2020, July). Assessing the impact of COVID-19 on Africa's economic development. In *United Nations Conference on Trade and Development*.
 17. Gorodeski, E. Z., Goyal, P., Cox, Z. L., Thibodeau, J. T., Reay, R. E., Rasmusson, K., ... & Starling, R. C. (2020). Virtual visits for care of patients with heart failure in the era of COVID-19: A statement from the Heart Failure Society of America. *Journal of Cardiac Failure*, 26(6), 448-456.
 18. Gupta, D., Simalti, A. K., Bansal, A., Gupta, N., Patki, V., Sood, A. K., ... & Parekh, B. J. (2020). Use of personal protective equipment during COVID-19 pandemic in resource limited settings-the barest minimum needed. *Indian Journal of Practical Pediatrics*, 22(2), 83.
 19. Haider, N., Osman, A. Y., Gadzekpo, A., Akipede, G. O., Asogun, D., Ansumana, R., ... & McCoy, D. (2020). Lockdown measures in response to COVID-19 in nine sub-Saharan African countries. *BMJ Global Health*, 5(10), e003319.
 20. Harrison, H., Birks, M., Franklin, R., & Mills, J. (2017). Case study research: Foundations and methodological orientations. In *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* 18(1), 1-17. FQS <http://www.qualitative-research.net/>
 21. Inzaule, S. C., Ondoa, P., Loembe, M. M., Tebeje, Y. K., Ouma, A. E. O., & Nkengasong, J. N. (2021). COVID-19 and indirect health implications in Africa: Impact, mitigation measures, and lessons learned for improved disease control. *PLoS Medicine*, 18(6), e1003666.
 22. Jimola, F. E., & Ofodu, G. O. (2021). Sustaining learning during COVID-19 seismic shift: The need to develop flexible pedagogy. *Interdisciplinary Journal of Education Research*, 3(1), 13-26. <https://doi.org/10.51986/ijer-2021.vol3.01.02>
 23. Jinadu, A. T., Oyaremi, M. K., & Rufai, M. D. (2021). Assessment of the Oyo State Teaching Service Commission Interactive Learning Platforms during COVID-19 lockdown in Nigeria.

- Interdisciplinary Journal of Education Research, 3(1), 37-44. <https://doi.org/10.51986/ijer-2021.vol3.01.04>
24. Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland Journal of Higher Education*, 9(3), 3351-33514.
 25. Mallapaty, S. (2020). Why does the coronavirus spread so easily between people?. *Nature*, 579(7798), 183-184.
 26. Mugizi, W., Rwothumio, J., & Amwine, C. M. (2021). Compensation management and employee wellbeing of academic staff in Ugandan private universities during COVID-19 lockdown. *Interdisciplinary Journal of Education Research*, 3(1), 1-12. <https://doi.org/10.51986/ijer-2021.vol3.01.01>
 27. Nemat, A., Raufi, N., Sediqi, M. F., Rasib, A. R., & Asady, A. (2021). Knowledge, attitudes, and practices of medical students regarding COVID-19 in Afghanistan: A cross-sectional study. *Risk Management and Healthcare Policy*, 14, 1491–1497. <https://doi.org/10.2147%2FRMHP.S308039>
 28. Ng, Y. M., & Or, P. L. P. (2020). Coronavirus disease (COVID-19) prevention: Virtual classroom education for hand hygiene. *Nurse education in practice*, 45, 102782.
 29. Nomani, M. Z. M., & Parveen, R. (2020). Legal dimensions of public health with special reference to COVID-19 pandemic in India. *Systematic Reviews in Pharmacy*, 11(7), 131-134.
 30. Ogen, Y. (2020). Assessing nitrogen dioxide (NO₂) levels as a contributing factor to coronavirus (COVID-19) fatality. *Science of the Total Environment*, 726, 138605.
 31. Okech, A., Mwambari, D., & Olonisakin, F. (2020). COVID-19 responses and human rights in selected African countries. *Australian Journal of Human Rights*, 26(3), 549-555.
 32. Omodan, B. I. (2020). The vindication of decoloniality and the reality of covid-19 as an emergency of unknown in rural universities. *International Journal of Sociology of Education*. 20, 1-26. <http://doi.org/10.17583/rise.2020.5495>
 33. Oreku, G. S. (2021). Adopting the ICT innovation to administrative and activity procedures in a university. *Interdisciplinary Journal of Education Research*, 3(2), 60-73. <https://doi.org/10.51986/ijer-2021.vol3.02.07>
 34. Payne, J. L., Morgan, A., & Piquero, A. R. (2021). Exploring regional variability in the short-term impact of COVID-19 on property crime in Queensland, Australia. *Crime Science*, 10(1), 1-20.
 35. Ponelis, S. R. (2015). Using interpretive qualitative case studies for exploratory research in doctoral studies: A case of Information systems research in small and medium enterprises. *International Journal of Doctoral Studies*, 10, 535-550. Retrieved from <http://ijds.org/Volume10/IJDSv10p535-550Ponelis0624.pdf>
 36. Pratt, M. G., Sonenshein, S., & Feldman, M. S. (2022). Moving beyond templates: A bricolage approach to conducting trustworthy qualitative research. *Organizational Research Methods*, 25(2), 211-238. <https://doi.org/10.1177%2F1094428120927466>
 37. Rad, R. E., Mohseni, S., Takhti, H. K., Azad, M. H., Shahabi, N., Aghamolaei, T., & Norozian, F. (2021). Application of the protection motivation theory for predicting COVID-19 preventive behaviours in Hormozgan, Iran: A cross-sectional study. *BMC Public Health*, 21(1), 1-11.
 38. Rossi, R., Soggi, V., Talevi, D., Mensi, S., Niolu, C., Pacitti, F., ... & Di Lorenzo, G. (2020). COVID-19 pandemic and lockdown measures impact on mental health among the general population in Italy. *Frontiers in psychiatry*, 790. <https://doi.org/10.3389/fpsy.2020.00790>
 39. Rowley, J. (2002). Using case studies in research. *Management research news*.
 40. Ryan, Gemma (2018). Introduction to positivism, interpretivism and critical theory. *Nurse Researcher*, 25(4) pp. 41–49.
 41. Salehi, S., Reddy, S., & Gholamrezanezhad, A. (2020). Long-term pulmonary consequences of coronavirus disease 2019 (COVID-19): What we know and what to expect. *Journal of Thoracic Imaging*, 35(4), W87-W89.
 42. Schleicher, A. (2020). The impact of COVID-19 on education: Insights from education at a glance 2020. Retrieved from [oecd.org website: https://www.oecd.org/education/the-impact-of-covid-19-on-education-insights-education-at-a-glance-2020](https://www.oecd.org/education/the-impact-of-covid-19-on-education-insights-education-at-a-glance-2020)
 43. Sebong, P. H., Tjitradinata, C., & Goldman, R. E. (2021). Promoting COVID-19 prevention strategies in student dormitory setting: A qualitative study. *Journal of American College Health*, 1-10. <https://doi.org/10.1080/07448481.2021.1926271>

44. Sharma, G. (2017). Pros and cons of different sampling techniques. *International Journal of Applied Research*, 3(7), 749-752.
45. Suárez-González, A., Rajagopalan, J., Livingston, G., & Alladi, S. (2021). The effect of COVID-19 isolation measures on the cognition and mental health of people living with dementia: A rapid systematic review of one year of quantitative evidence. *EClinicalMedicine*, 39, 101047. <https://doi.org/10.1016/j.eclinm.2021.101047>
46. Suen, L. J. W., Huang, H. M., & Lee, H. H. (2014). A comparison of convenience sampling and purposive sampling. *Hu Li Za Zhi*, 61(3), 105.
47. UNICEF. (2020). What will a return to school during COVID-19 look like? What parents need to know about school reopening in the age of coronavirus. In: UNICEF for every child.
48. UNICEF. (2021). Direct and indirect effects of the COVID-19 pandemic and response in South Asia. UNICEF, *Sick. Cent. Glob. Child Heal*, 57.
49. Van den Berg, A., & Struwig, M. (2017). Guidelines for researchers using an adapted consensual qualitative research approach in management research. *Electronic Journal of Business Research Methods*, 15(2), 109-119.
50. World Health Organization. (2019). *School-based violence prevention: A practical handbook*. World Health Organization. <https://apps.who.int/iris/bitstream/handle/10665/324930/9789241515542-eng.pdf>
51. World Health Organization. (2020). Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19): Interim guidance, 19 March 2020 (No. WHO/2019-nCoV/IPC PPE_use/2020.2). World Health Organization.
52. Zhao, N., Kam, C., TY Lo, J., Kim, J. I., & Fischer, M. (2018). Construction parts in building projects: Definition and case study. *Journal of Management in Engineering*, 34(4), 04018014.