

UNIVERSITY OF EDUCATION, WINNEBA

**INFLUENCE OF COVID-19 PANDEMIC ON MANAGEMENT IN
PUBLIC BASIC SCHOOLS IN AKUAPEM-NORTH MUNICIPALITY,
EASTERN REGION, GHANA**

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MASTER OF PHILOSOPHY

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UNIVERSITY OF EDUCATION, WINNEBA

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BASIC SCHOOLS IN AKUAPEM-NORTH MUNICIPALITY, EASTERN
REGION, GHANA**

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202142319**



**A thesis in the Department of Educational Administration and Management,
Faculty of Educational Studies, submitted to the School of
Graduate Studies in partial fulfilment
of the requirement for the award of the degree of
Master of Philosophy
(Educational Administration and Management)
in the University of Education, Winneba**

JUNE, 2023

DECLARATION

Student Declaration

I, Ruth Tetteh, declare that this thesis with the exception of quotations and references contained in public works which have all been identified and duly acknowledged is my original work, and has been submitted, either in part or whole, for another degree elsewhere

Signature:

Date:

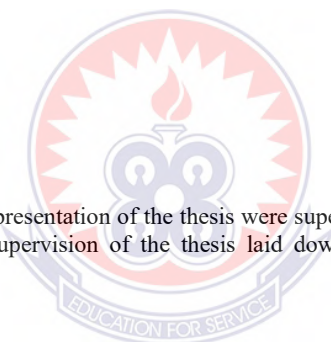
Supervisor's Declaration

I, hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on the supervision of the thesis laid down by the University of Education Winneba.

Name of Supervisor: Judith Bampo, PhD

Signature:

Date:



DEDICATION

To my husband Kingsley Joseph Amoah, and children Joy Adubafour, Esther Amoah, Josephine Amoah, and Pearl Amoah.



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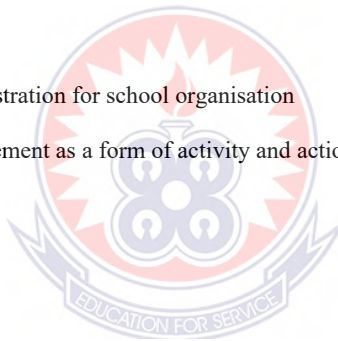


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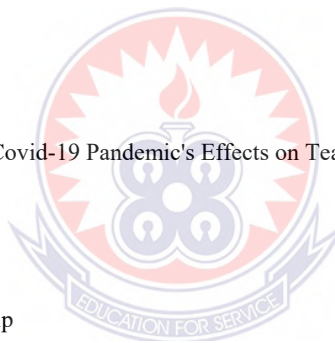
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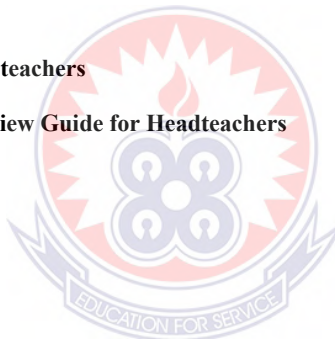


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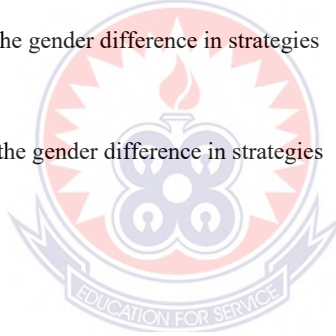
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ABSTRACT

Education managers work hard to address the educational demands of pupils and staff as nations grapple with new circumstances brought on by the COVID-19 pandemic. Therefore, this study investigated the influence of the COVID-19 pandemic on management in public basic schools in the Akuapem-North Municipality, Eastern Region, Ghana. As a component of the mixed methods approach, the study used a sequential explanatory mixed methods design. The sample consisted of 87 head teachers. Data were gathered using surveys and interviews. The quantitative data were analysed using descriptive and inferential statistics. Themes and quotations were used to analyse the qualitative data. It was discovered that the COVID-19 pandemic had a detrimental effect on instruction and learning in public basic schools in the Akuapem-North Municipality. Also, charts, transparencies, real items, and textbooks were available to headteachers as educational tools for addressing the pandemic's effects. In addition, headteachers used education, adherence to protocols, and the provision of personal protective equipment (PPE) as ways to control teaching and learning during the COVID-19 epidemic in public basic schools. Last but not least, there was a significant gender gap in the approaches used by headteachers to oversee teaching and learning during the epidemic in public elementary schools. It was concluded that the COVID-19 pandemic has significantly influenced management in public basic schools in the Akuapem North Municipality, Eastern Region, Ghana. The disruptions caused by the pandemic have necessitated adaptations and strategies to ensure continued education while ensuring the safety and well-being of students, teachers, and the community. It was suggested that educational managers in public basic schools in the Akuapem North Municipality should develop and implement effective remote learning strategies that cater to the needs of students. Also, they should provide teachers with training on remote teaching methodologies, digital tools, and platforms to effectively engage students in online or blended learning environments.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The need for efficient school management is more important than ever today (Zhou, Wu & Zhou 2020). Basic education is seen as a crucial component of the education system and for the growth of the nation's economy (Zhou et al. 2020). The use of management principles and competencies in the design, development, and allocation of resources for the accomplishment of educational objectives is educational management in schools (Suraj, 2019). The provision of high-quality basic education has a lot of promise if management coordination is effective (Suraj, 2019; Ignace, 2014).

Educational management has effectively attracted international attention in academics during the past few decades (Zhou, 2018). The subject of school administration has seen the emergence of a new strategy: educational leadership, which is different from educational management (Zhou, 2018). The argument between educational leadership and educational management still remains even though educational leadership has emerged as the popular educational paradigm in the late 21st century because both philosophies theoretically improve schools, albeit in different ways (Zhou, 2018).

Even though there is no one definition of educational management, this term is frequently described as a way to lead through values, objectives, and deeds (Qian, Walker & Li, 2017). Ali and Anwar (2021) and Normore and Brooks (2014) said that leadership is more about the capacity to empower individuals who can have an impact on organisational effectiveness through their skills and abilities than it is about

positional authority. In contrast, the upkeep and implementation of school policies are the fundamental objectives of educational management (Zhou, 2018).

Although there is no definition, it often refers to a strategy that emphasizes efficiency in schools (Walker & Qian, 2015). Midway through the 20th century, the term “educational management” (EM) was created in the United States and has since grown widely used. Although educational management has been formally acknowledged by academics and integrates prior concepts and ideas from management, bureaucracy, and administration, it has eluded a single, precise definition due to its complexity (Normore & Brooks 2014). In the early phases of its evolution, educational management was initially designated in the United States as educational administration (Zhou, 2018).

The rest of the world and European nations both widely embraced the term “management” (Alvarez, Yumashev & Whiteman, 2020). While the majority of scholars agreed that educational management and educational administration have comparable contexts and meanings, Flessa, Bramwell and Mindreau (2021) provided a detailed explanation of how the two ideas vary. The normal upkeep of current activities is referred to as educational management and educational administration denotes lower-level responsibilities (Zhou, 2018).

The most concise definition of management was provided by Zhou (2018), who stated that it is all about maintaining educational institutions: Managing is maintaining current organisational arrangements efficiently and effectively. While managing well frequently demonstrates leadership skills, the overall function is towards maintenance rather than change (Zhou, 2018). Ballo (2020) went on to elaborate on the

significance of maintenance, noting that educational management deals with technical or implementation-related concerns.

The abbreviation COVID-19, which stands for CO-the coronavirus, VI-the virus, and D-the disease, is used to refer to the coronavirus illness (UNESCO, 2020). Ghana is not an exception to the global economy, public health, education, agriculture, and other sectors being plagued by the novel pandemic coronavirus disease (COVID-19). According to Ali, Ahmad, and Husain (2020), the coronavirus was initially discovered in China, more especially in Wuhan City, in the winter of 2019.

It looks as if every aspect of human life has been impacted by the pandemic, including religious practices, funerals, commerce, education, public healthcare systems, and sociocultural gatherings. The COVID-19 pandemic shook the world in uncontrollable and unfathomable ways (UNESCO, 2020). The pandemic's severe effects are still present today (UNESCO, 2020). Education was among the industries that were most impacted (Ali, Ahmad & Husain, 2020). The world and educational institutions were not ready to accept this transition (UNESCO, 2020).

The COVID pandemic posed a threat to education in two ways: first, through the immediate effects of school and university closures; second, through the long-term effects of the economic recession brought on by the pandemic response, which has already started and will continue to worsen unless countries take significant action to address it (World Bank Group Education report, 2020). The World Health Organisation has issued a warning that Africa might become the next epicenter of the new coronavirus as the number of cases across the globe climbs. As the virus appeared to be spreading outside of African major cities, the UN Commission for

Africa predicted that 300,000 people will die in Africa (Nishiura, Linton & Akhmetzhanov, 2020).

Over one billion pupils have been affected by school closures caused by COVID-19 to date (Russel, 2020). By March 18, 2020, 107 countries have reportedly closed their national schools due to COVID-19 in response to the coronavirus pandemic, affecting 862 million children and teenagers, or almost half of all students worldwide (UNESCO, 2020). Even more gravely, according to Bozkurt and Sharma (2020), the COVID-19 epidemic has resulted in the closure of schools and universities, affecting more than 1.5 billion students of all ages from around the world. 90% of all enrolled students worldwide are affected, and school closures have increased learning disparities and disproportionately harmed vulnerable children and youth (UNESCO, 2020).

School closures are a vital component of social distance measures to minimise the spread of the disease and prevent an acceleration of cases that strain health services, notwithstanding the low incidence of infections among youngsters (World Bank, 2020). The precise time of the closure, the population's age distribution, and the length of the closure all affected how well it worked as a preventative strategy (World Bank, 2020).

Due to the Coronavirus (COVID-19) outbreak, which had reportedly decimated the majority of China, the United States of America, Italy, Spain, and other regions of Europe and Africa, governments throughout Africa announced through the Ministry of Health that all schools, colleges, and universities were closed indefinitely around the middle of March 2020 (Sintema, 2020). Similarly, by March 2020, all schools and universities in Ghana were shut down, and additional travel restrictions were put in

place. The announcement of the closure came as students in the final year of elementary school were getting ready to write the Basic Education Certificate Examination (BECE) examination in June and students in the final year of senior high school were getting ready to write the West African Secondary School Certificate Examination (WASSCE) in May 2020. These youngsters' future remained a phantom.

It is odd that the Ministry of Education did not appear to have any answers for the issue at hand. Teachers were looking to the Ghana Education Service (GES) for guidance while parents and teachers were perplexed. The fact that no one understood how these candidates would be admitted into senior high schools and universities in September 2020 raised even greater concerns and confusion because the universities seem to have rejected ideas for aptitude tests and entrance examinations for these applicants.

The pandemic had exposed the absence of preparation and planning in educational settings (UNESCO, 2020). Therefore, it appears that there were no other answers to an issue that is likely to cause the entire educational system to regress and worsen the plight of the nation's most vulnerable children and youth (UNESCO, 2020). The educational spectrum was being rebuilt and reengineered with various methods and tactics to limit the impact of COVID-19 since it was recognised that the virus poses an existential threat to the access of vulnerable children and teenagers to education (UNESCO, 2020).

In order to ensure that learning never stops, among other things, UNESCO created a global coalition to promote and sustain best practices in flexible, remote, and distance learning practices, promoting children's and youths' access to education who are most at risk of exclusion (UNESCO, 2020). In addition, many students are left out of the

educational process despite the alternative learning strategies that some of these nations have used (Ebner et al., 2020; Huang, Liu, et al., 2020; Huang, et al., 2020). Over 1.5 billion students worldwide were cut off from the regular educational process as of April 2020, according to UNESCO (2020), because of school closure policies. Additionally, some of these nations were only able to easily switch over to the alternative medium because they had made the necessary investments in and provided the human resources and digital platforms that supported the remote teaching mechanisms.

In contrast, poorer nations, notably those in sub-Saharan Africa, such as Ghana, were finding it difficult to deal with the pandemic's effects due to their weak financial resources, inadequate Internet infrastructure, budgetary competition, and staff skill gaps. The majority of the schools were in lockdown despite the few attempts made by the Ghanaian government to implement alternate teaching methods or e-learning initiatives (such as radio and television school broadcasts).

The impact of the COVID-19 pandemic on educational management in the Ghanaian setting, however, appears to lack evidence-based data. Understanding this phenomenon is crucial because it will help inform curriculum and instruction design that will maximise citizens' learning opportunities and give them knowledge of how communities with limited resources can handle educational challenges during medical emergencies and disruptions of the educational process.

Beyond the disparate forms in which the coronavirus has impacted the wider spectrum of entities in business, economy, politics, and education, the pandemic offered a window of opportunities for new experiences, reimagining the educational process, and extending the frontiers of knowledge through empirical research and

experimentation with different learning pedagogies and the use of technology. Anecdotal evidence in public basic schools in the Akuapem North Municipality shows that heads of public basic schools were faced with challenges in implementing online learning due to the absence of face-to-face learning. Some online challenges encountered were limited access to technology, internet connectivity issues, and lack of digital literacy among students, teachers, and parents. Again, the closure of schools during the pandemic led to a significant disruption in traditional classroom instruction. This disruption resulted in learning loss among students, particularly in subjects that require hands-on practical activities or face-to-face interactions with teachers and students in public basic schools in the Akuapem North Municipality.

In that sense, this study sought to investigate the influence of the COVID-19 pandemic on management in public basic schools in the Akuapem-North Municipality (ANM), Eastern Region, Ghana.

1.2 Theoretical Framework

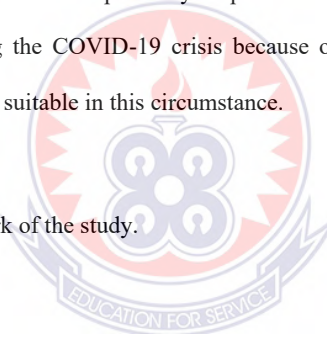
This study was underpinned by the Contingency-Based Leadership theory. According to earlier studies, there are a variety of leadership styles, including authoritative, democratic, situational, transactional, and transformational (Nahavandi, 2016; Munyanyiwa & Nelson-Porter, 2015). Different leadership philosophies can be applied in specific situations to satisfy the demands of the scenario, according to situational leadership (Oberer & Erkollar, 2018). According to the contingency-based leadership theory, an effective leadership style is chosen based on particular circumstances (Nahavandi, 2016).

Brownlee (2020) argued that new leadership traits including adaptation, flexibility, empathy, and candour must be embraced by leaders if they are to manage organisations during and after the COVID-19 crisis. The researcher hypothesised that the COVID-19 crisis would have caused the headteachers of public basic schools in the Akuapem-North Municipality, Eastern Region, Ghana, to modify their leadership style in order to adapt to the change and steer the team (teachers) forward in a sustainable way. This hypothesis was based on situational leadership and contingency-based leadership theory.

In circumstances where it is not possible for the teachers to work close by or when they are spread out geographically, virtual leadership is very helpful. Since workers were advised to work from home during the COVID-19 crisis because of societal constraints, virtual leadership is extremely suitable in this circumstance.

1.3 Conceptual Framework

Figure 1 presents the conceptual framework of the study.



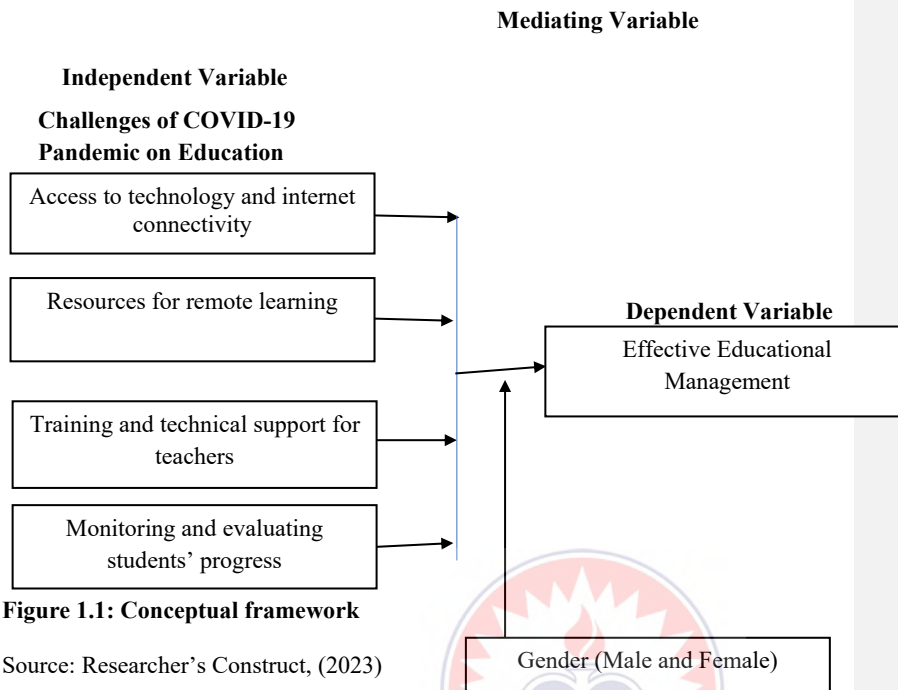


Figure 1.1: Conceptual framework

Source: Researcher's Construct, (2023)

In Figure 1.1, the independent variable included; access to technology and internet connectivity, resources for remote learning, training and technical support for teachers, and monitoring and evaluating students' progress. Also, the mediating variable as indicated in Figure 1 is gender. Finally, the dependent variable as displayed in Figure 1 is effective educational management.

The COVID-19 pandemic has necessitated the implementation of various measures to ensure the safety and continuity of education. These measures include school closures, remote learning, social distancing, and enhanced hygiene practices. These factors have influenced different aspects of educational management, including curriculum delivery, teaching and learning strategies, assessment methods, teacher-student interactions, and administrative procedures (Dwumah et al., 2020; Takyi et al., 2021).

The researcher conceptualised that heads of Public basic schools in the Akuapem North Municipality have encountered several challenges in managing education during the COVID-19 pandemic. These challenges may include limited access to technology and internet connectivity, inadequate resources for remote learning, lack of training and technical support for teachers, and difficulties in monitoring and evaluating students' progress (Amankwaa et al., 2020; Nyarko et al., 2021).

For this reason, the researcher believed that effective educational management during the pandemic requires collaboration and support from various stakeholders. These stakeholders include school administrators, teachers, parents, community leaders, government agencies, and non-governmental organisations. Collaboration among these stakeholders can facilitate the development and implementation of strategies such as providing technological resources, training teachers in remote teaching methodologies, creating support networks for students and parents, and ensuring the effective communication of guidelines and updates (Dwumah et al., 2020; Nyarko et al., 2021).

The researcher was of the opinion that to address these challenges faced by heads of public basic schools in the Akuapem North Municipality, several mitigation strategies may be implemented. These strategies may include the provision of digital devices and internet connectivity to students and teachers, the establishment of remote learning platforms, the development of teacher training programmes for online teaching, the creation of alternative assessment methods, the promotion of mental health and psychosocial support, and the implementation of targeted interventions for vulnerable students (Amankwaa et al., 2020; Takyi et al., 2021).

Further, the researcher hypothesised that there are gender disparities in the coping strategies adopted by educational managers in public basic schools in the Akuapem North Municipality. Research has shown that there are gender disparities in access to technology and digital resources during remote learning. Females may face more barriers in terms of access to devices, internet connectivity, and digital literacy skills, which can affect their ability to engage in online learning (UNESCO, 2020).

Additionally, women often bear a larger share of caregiving responsibilities within households. With school closures and remote learning, women may face increased challenges in balancing their own work or professional commitments with supporting their children's education (Organisation for Economic Co-operation and Development [OECD], 2020). Again, a study indicated that women may experience higher levels of stress, anxiety, and mental health challenges during the pandemic (UN Women as cited in OECD, 2020). These factors can influence their ability to manage educational challenges effectively.

Besides, research suggested that gender differences exist in learning preferences and styles. Women may generally prefer collaborative and interactive learning environments, which may be harder to replicate in remote settings (OECD, 2020). However, it is not very clear whether there are gender disparities in the coping strategies adopted by educational managers in public basic schools in the Akuapem North Municipality. Hence, the need for this study to be conducted.

1.4 Statement of the Problem

The effects of COVID-19 on education and the health of instructors, parents, and students were examined globally by Duraku and Hoxha (2020), who also looked at chances to improve educational quality and issues associated with remote (online) learning. The study's findings indicate that the COVID-19-related situations have raised a lot of questions regarding assessment and its related issues. Again, the COVID-19 has raised questions regarding the suitability of distant learning, and student overload, parent's commitment, and teacher's attitude.

While Duraku and Hoxha's (2020) study was done in Europe, opportunities to improve education quality, the support of teachers, parents, and families, along with practical recommendations for those working in the field of education, were also included. Additionally, it took a qualitative approach as opposed to the mixed methods technique used in the present study. Further, Duraku and Hoxha's (2020) study did not ask for headteachers' opinions.

Ng'ang'a (2021) in Africa investigated how COVID-19 regulations affected Kenya's educational system. It was discovered that although the government's funding for public schools made up a significant amount of its budget, it still fell short of the desired 20% of the overall budget. Ng'ang'a's (2021) research, however, was carried out in Kenya. Ng'ang'a's (2021) study also neglected to take headteachers' perspectives into account. Additionally, Ng'ang'a's (2021) study did not take educational management into account as a variable. Furthermore, private basic schools rather than public ones were used for the study.

Additionally, Yunusa et al. (2021) investigated the effects of the COVID-19 epidemic on higher education in Nigeria from the viewpoints of university instructors. The findings showed that COVID-19 had a bad effect on a number of universities. The COVID-19 pandemic's effects on the Nigerian higher education system have created chances for addressing difficulties, problems, and trends that have emerged so far and will continue to do so in the future.

However, the study by Yunusa et al. (2021) was carried out in Nigeria. Additionally, as opposed to the technique of the mixed method in the current study, the study used a qualitative methodology. Additionally, in the current study, it was done at the tertiary level rather than the elementary level. Additionally, they used lecturers to gather data, unlike the current study.

Moreover, COVID-19 and education in Ghana: A Tale of Chaos and Peace were investigated by Nantwi and Boateng (2020). The conclusion was that the way forward is to create virtual online platforms for ongoing teacher-learner interactions, but there is a lot that has to be done to make this possible in poor nations. However, unlike Nantwi and Boateng's (2020) study, which concentrated on COVID-19 and education in Ghana as a whole, the current study concentrated on the impact of the COVID-19 pandemic on educational management in public basic schools in the Akuapem North Municipality, Eastern region. Furthermore, headteachers' opinions on running schools during the COVID-19 epidemic were not gathered for Nantwi and Boateng's (2020) study.

The COVID-19 pandemic has forced educational institutions worldwide to adopt online learning as a means of continuing education while maintaining social distancing measures Jen (2020). Anecdotal evidence in public basic schools in the

Akuapem North Municipality shows that school managers may have faced challenges in implementing online learning due to various factors, including limited access to technology, internet connectivity issues, and lack of digital literacy among students, teachers, and parents. The online learning was not a policy it was one of the options aside face to face teaching. Further, the closure of schools during the pandemic has led to a significant disruption in traditional classroom instruction. This disruption may have resulted in learning loss among students, particularly in subjects that require hands-on practical activities or face-to-face interactions with teachers and peers in public basic schools in the Akuapem North Municipality.

Again, the researcher observed informally that some educational managers in public basic schools in the Akuapem North Municipality have to adapt curriculum delivery methods and assessment strategies to accommodate the limitations imposed by the pandemic. This compelled some of the schools to shift towards asynchronous learning approaches, such as providing recorded teaching and online assignments, and modified assessment methods to suit remote learning, such as online tests and examinations. However, it was observed informally by the researcher that almost all the heads of public basic schools in the Akuapem North Municipality lacked the necessary facilities to carry out these tasks.

For this reason, maintaining student engagement and providing adequate support during remote learning becomes a challenge. For example, students may face difficulties in staying motivated, accessing resources, and seeking assistance from teachers. In public basic schools in the Akuapem North Municipality, efforts were made to address these challenges which included the provision of learning materials in print or electronic formats, setting up helplines or online platforms for student support, and promoting communication between teachers, students, and parents, yet,

the problem limited access to technology and internet connectivity, inadequate resources for remote learning and difficulties in monitoring and evaluating students still persists.

Anecdotally, it was further discovered by the researcher that the COVID-19 pandemic disrupted teacher training programmes and professional development opportunities. For example, in-person workshops and seminars for teachers were canceled or moved online, affecting teachers' ability to acquire new skills and strategies for remote teaching. However, some of the educational managers of public basic schools in the Akuapem North Municipality provided online training sessions, webinars, or virtual meetings to support teachers in adapting to the new teaching and learning environment, but this came with its own challenges such as network problems.

To ensure a safe learning environment, some educational managers in public basic schools in the Akuapem North Municipality implemented various safety measures, such as enhanced sanitation practices, physical distancing protocols, and the provision of personal protective equipment (PPE) for students and staff. Similarly, they needed to make infrastructure adjustments, such as reconfiguring classroom layouts and increasing ventilation, to comply with health guidelines. These anecdotal reports served as the foundation for this study, which looked into the influence of the COVID-19 pandemic on management in public basic schools in the Akuapem North Municipality of the Eastern Region of Ghana.

1.5 Purpose of the Study

The study sought to investigate and highlight how the challenges of COVID-19 pandemic were managed in public basic schools in the Akuapem North Municipality.

1.6 Research Objectives

The objectives of the study were to:

1. Explore how COVID-19 pandemic affected teaching and learning in public basic schools in the Akuapem North Municipality.
2. Discover resources available to headteachers in managing the impact of the COVID-19 pandemic on teaching and learning in public basic schools in the Akuapem North Municipality towards attaining educational goals.
3. Explore strategies adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality.
4. Determine whether there was a gender difference in the leadership skills adopted by male and female headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality?

1.7 Research Questions

The following questions were formulated to guide the study:

1. How did COVID-19 pandemic affect teaching and learning in public basic schools in the Akuapem North Municipality?
2. What resources were available to educational institutions in managing the impact of the COVID-19 pandemic on teaching and learning in public basic

schools in the Akuapem North Municipality towards attaining educational goals?

3. What strategies were adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality?
4. What leadership skills were adopted by male and female headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality?

Commented [RA1]: new

1.8 Research Hypothesis

1. H₀: There is no gender difference in the strategies adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality.
2. H₁: There is a gender difference in the strategies adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality.

1.9 Significance of the Study

The results of this study would offer crucial insight into how to assist educational managers during any such epidemic in the administration of schools in the Akuapem-North Municipality. In light of the COVID-19 epidemic, it would draw attention of policy makers to some of the difficulties that arise with the adoption of new technology and provide some solutions. The research would also be used as the foundation for intervention activities for decision-makers and stakeholders in the education sector.

Furthermore, counseling psychologists may use the study's findings to help students, parents, teachers, and headteachers who might be experiencing emotional distress as a result of the COVID-19 epidemic. Also, it is hoped that findings of this study will enable Headteachers and teachers to assist students who contract any kind of such diseases and help them to significantly reduce the spread of any such diseases. Parents would also be informed as to how to handle students at home should the contract such diseases

The study would inspire further research. This is because of the new areas of investigation, such as the research methodologies used, or propose new hypotheses that need to be tested. The study's results and conclusions would help improve online lesson delivery.

1.10 Delimitations of the Study

The study's scope was restricted to how the COVID-19 pandemic affected educational leadership in public basic schools in the Akuapem North Municipality of Ghana's Eastern Region. Additionally, it was restricted to the public basic schools in the seven circuits. They were: Akropong, Mampong, Larteh, Mangoase, Tinkong, Okorase, and Adawso circuits. Once more, the sequential explanatory design and the pragmatist paradigm were used in the study. Additionally, headteachers were utilised to collect data. Questionnaires and interviews were used to gather data.

1.11 Limitations of the Study

Only a small percentage of the statements on the survey went unanswered by some of the headteachers. The study's conclusions were unaffected by this constraint, though. Furthermore, only a few of the headteachers originally felt uncomfortable opening up and discussing concerns about the subject throughout the interviews. They did open

up to disclose study-related information, though, once they were promised secrecy and anonymity. Additionally, the study's scope was restricted to the public elementary schools in Ghana's Eastern Region's Akuapem North Municipality. Because of this, the study's conclusions cannot be applied to other public elementary schools outside Akuapem North Municipality of Ghana's Eastern Region.

1.12 Operational Definition of Terms

Operational definitions are specific explanations or descriptions of key terms or variables used in a study or research project. In the context of the influence of the COVID-19 pandemic on management in public basic schools in the Akuapem North Municipality, the following operational definitions of terms were used:

COVID-19 Pandemic: The operational definition for the COVID-19 pandemic could refer to the global outbreak of the novel coronavirus (SARS-CoV-2) that originated in late 2019, resulting in widespread transmission and the declaration of a pandemic by the World Health Organization (WHO).

Management: In the context of this study, management refers to the processes, strategies, and decisions involved in the administration and organization of public basic schools in the Akuapem North Municipality. It includes aspects such as curriculum development, staff recruitment and training, resource allocation, policy implementation, and assessment practices.

Public Basic Schools: Public basic schools refer to educational institutions within the Akuapem North Municipality that are funded and managed by government authorities. These schools typically provide primary and junior high school education to students in the municipality.

Influence: In this study, influence refers to the direct or indirect effects, changes, or impacts of the COVID-19 pandemic on various aspects of management in public basic schools. It could include both positive and negative effects on teaching and learning, administration, infrastructure, teacher-student relationships, and other relevant areas.

1.13 Organisation of the Study

The study is organised into five chapters. Chapter One focuses on the introduction of the study, which discusses the background of the study, the theoretical framework, the conceptual framework, the statement of the problem, the purpose of the study, and the research objectives. It further discusses the research questions, research hypothesis, significance of the study, delimitations of the study, limitations of the study, operational definitions of terms, and organisation of the study. Chapter Two presents the literature review. It discusses the following subheadings: The concept of a pandemic, the concept of educational management, the COVID-19 pandemic, educational resources in managing the impact of the COVID-19 pandemic, Strategies for managing the impact of the COVID-19 pandemic on teaching and learning, and gender differences among headteachers in managing the impact of the COVID-19 pandemic on teaching and learning.

Chapter Three deals with the research methodology used. It gives a detailed description and explanation of the research design. It discusses the research paradigm, research approach, population of the study, sample and sampling techniques, data collection instruments, and validity and reliability of the questionnaire. It also discusses the trustworthiness of the study, collection procedures, data analysis procedures, and ethical considerations. Chapter Four presents the findings and a

discussion of the findings. Chapter Five summarises the findings of the study and offers recommendations derived from these findings and provides suggestions for further studies.



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents a literature review on influence of the COVID-19 pandemic on management in public basic schools in the Akuapem North Municipality, Eastern Region, Ghana. It discusses the following subheadings:

1. The concept of pandemic
2. The concept of educational management
3. The COVID-19 pandemic and teaching and learning
4. The concept of educational resources
5. Strategies for managing the impact of the COVID-19 pandemic on teaching and learning
6. Gender influence on institutional management
7. Gender differences among headteachers in managing the impact of the COVID-19 pandemic on teaching and learning

2.1 The Concept of Pandemic

Generally speaking, pandemics are disease epidemics that spread widely as a result of human-to-human infection. Spanish Flu, Hong Kong Flu, SARS, H7N9, and Ebola are just a few of the notable illness outbreaks and pandemics that have been documented throughout history (Maurice, 2016; Rewar, Mirdha, & Rewar, 2015). Although the term "pandemic" has not been defined by many medical texts, there are some key characteristics of a pandemic, such as wide geographic extension, disease movement, novelty, severity, high attack rates and explosiveness, minimal population

immunity, infectiousness, and contagiousness, that help us understand the concept better if we compare and contrast them. The health, economy, society, and security of national and international populations have all suffered greatly as a result of pandemic-related issues. They have also significantly disrupted politics and society (Maurice, 2016).

2.1.1 Definition of pandemic

The word “pandemic” is derived from the Greek words pan, which means “all” and demos, which means “the people,” and it is typically used to describe a huge epidemic of contagious disease that spreads simultaneously across an entire nation or one or more continents (Aweke, 2021). Nevertheless, numerous contemporary medical texts have defined the term over the previous 20 years. Even authoritative literature on pandemics, such as the seminal 1992 report on emerging illnesses from the Institute of Medicine, classic epidemiology textbooks, and comprehensive histories of medicine, do not include it in their indexes (Dionne & Turkmen, 2020). The internationally accepted definition of a pandemic as it appears in the Dictionary of Epidemiology is straightforward and well-known as an outbreak of a disease or condition that spreads internationally, across national borders, and typically affects a huge number of individuals (Petersen, Osler & Ekstrøm, 2021).

The classical definition, however, makes no mention of virology, population immunity, or the severity of the disease. However, given the broad definition of the term, pandemics can be stated to occur annually in both the temperate southern and northern hemispheres based on this dictionary definition. Seasonal epidemics spread across international borders and have a significant human impact. Seasonal epidemics, according to Monto and Fukuda (2020), are not regarded as pandemics. According to Luca et al. (2018), contemporary definitions also include epidemics that are

distributed or occur widely throughout a region, country, continent, or among others and extensive epidemics that affect a substantial percentage of the population over a wide geographic area.

In the case of influenza, biologists also require that pandemic strains undergo key genomic mutations, known as antigenic shifts. There must be persistent transmission in at least two regions simultaneously for the World Health Organisation (WHO) to issue a level six pandemic alert. According to the World Health Organisation, pandemic influenza occurs when a novel, highly pathogenic viral subtype establishes a foothold in the human population and spreads quickly throughout the world with no one (or very few) in the human population possessing immunological resistance (WHO, 2020).

2.1.2 Pandemic through history

Smallpox, cholera, plague, dengue, AIDS, influenza, severe acute respiratory syndrome (SARS), West Nile disease, and TB are only a few of the notable pandemics in recorded human history. Inevitable but frequent influenza pandemics can have catastrophic effects on societies all across the world (WHO, 2020). Since the 1500s, there have been three influenza pandemics every century, or one every 10 to 50 years.

Three influenza pandemics, known as the "Spanish flu" in 1918–1919, the "Asian flu" in 1957–1958, and the "Hong Kong flu" in 1968–1969, occurred in the 20th century. Every epidemic damage both human lives and economic growth. For instance, the influenza pandemic of 1918–1919, which claimed the lives of more than 20 million people worldwide, is regarded as the deadliest epidemic in history (WHO, 2020). There have been at least six significant outbreaks in recent years, including the Ebola

virus disease epidemic, severe acute respiratory syndrome, H1N1, H5N1, and hantavirus pulmonary syndromes (Gostin & Friedman, 2015).

The first pandemic influenza of the twenty-first century was caused by the influenza H1N1 2009 virus (A/2009/H1N1). More than 18,000 people have died as a result of it and it has touched the entire planet (Rewar, Mirdha, & Rewar, 2015). According to estimates from the World Bank, Ebola claimed the lives of over 11,000 individuals and cost the global economy over USD 2 billion (Maurice, 2016). As of right now, the Zika virus is still spreading and endangers people's health in 34 nations (Troncoso, 2016). Scientists and governments are concerned about the recurrence of the devastation brought on by the Spanish flu in 1918 due to these outbreaks (Lin et al., 2016).

2.1.4 The impact of a pandemic

Infectious disease outbreaks can easily cross borders to threaten economic and regional stability, as has been demonstrated by the HIV, H1N1, H5N1, and SARS epidemics and pandemics (Verikios et al., 2015). Beyond the debilitating, at times fatal, consequences for those directly affected, pandemics have a variety of negative social, economic, and political consequences (Davies, 2019). As an example, “The impact of pandemic influenza, thus. H1N1 in 2009 was not just on mortality, but also on healthcare systems, animal health, agriculture, education, transport, tourism, and the financial sector. In short, a pandemic event threatens all aspects of the economic and social fabric” (Fuentes et al., 2020).

For another example, the SARS in 2003 and the Ebola pandemics, in 2013 and 2015 respectively, disrupted the economies and social order in China and West Africa as well as caused death and illness. Ebola and other pandemics have reduced the life

quality of families and communities, and Ebola has disrupted essential services such as education, transport, and tourism, reduced the West African economies and isolated populations, which had impacts beyond Africa too due to the global effort of containing the outbreak (Nabarro & Wannous, 2016).

2.1.5 Health effects

Pandemics have infected millions of people, causing widespread serious illness in a large population and thousands of deaths. For example, in the 14th century, the 'Black Death' plague killed half the population of Europe (Ross, et al., 2014). In the 20th century, there were three main pandemics:

1. In 1919-1920, the Spanish flu killed 20-40 million people (Joshi & Shukla, 2022).
2. In 1957-1958, the Asian flu killed approximately 2 million people (Roberts & Krilov, 2022).
3. Hong Kong flu in 1968-1969, which caused 1 million deaths (Wildoner, 2016; Kaur et al., 2020),

Infectious disease disasters, including pandemics and emerging infectious disease outbreaks, have the potential to cause high morbidity and mortality in the world, and they may account for a quarter to a third of global mortality (Verikios et al., 2015). In developing countries, both pandemics and infectious diseases have the potential to claim many lives, and the likelihood of deaths is within the range of 5-10 percent (Kern, 2016). During the SARS outbreak in 2003, there were more than 8000 infected individuals, with over 700 deaths (almost 9%) worldwide in just 6 months (Unwin et al., 2022).

Influenza is one of the most serious pandemic diseases. Influenza outbreaks can result in considerable morbidity and mortality. Influenza pandemics are characterized by a

high incidence and fatality rate, with 250,000–500,000 deaths each year, and rapid and widespread transmission (Kern, 2016). Recent influenza pandemics have killed significant numbers of people worldwide and contributed to an estimated 8,870–18,300 deaths in 2009–2010 (Prager, Wei, & Rose, 2016). For example, May 2009 saw the emergence from Mexico of a new H1N1 virus capable of human-to-human transmission (Verikios et al., 2015).

World Health Organisation reported 182,166 laboratory-confirmed cases of influenza A/H1N1, with 1799 deaths in 178 countries up to August 13, 2009 (Rewar, Mirdha & Rewar, 2015). In the U.S.A., "The US Centers for Disease Control and Prevention (CDC) estimates that the peak H1N1 season (April 2009 to April 2010) in the United States will be in 2020" (Oei et al., 2020). This resulted in 43-89 million cases, 195–403 thousand hospitalizations, and 8,870–18,300 deaths" (Oei, et al., 2020). Over the past several years, the threat of a human influenza pandemic has greatly increased. For example, H5N1 has repeatedly managed to infect humans in several Asian and European countries (Fangriya, 2015).

There had been 387 confirmed cases of human H5N1 infection across 15 countries from late 2003 to late 2008, including 245 deaths, with an average case-fatality rate of around 63% globally (Yamamoto et al., 2020). The H5N1 could easily become another major pandemic. With the emergence of the zoonotic influenza A (H7N9) virus in China, there have also been renewed concerns about the potential for a pandemic to arise from an avian influenza strain. The outbreak of H7N9 viruses has caused more than 600 human infections, with nearly 30% mortality, and the H7N9 virus is considered to have pandemic potential (Tanner, TOTH, & Gundlapalli, 2015).

Other major threats in recent times have been pandemics of Dengue and Ebola. The incidence of the severe and fatal form of Dengue has increased dramatically in developing countries. The 2015–2016 dengue epidemics were the worst in the history of Latin America. The first cases were recorded in Brazil in May 2015 and caused more than 1.5 million cases up to December 2015. At least 34 countries were involved in March 2016 (Troncoso, 2016).

The Ebola outbreak in West Africa was an unprecedented public health emergency of international concern. In October 2015, WHO reported that there were 28,581 Ebola Virus Disease (EVD) confirmed, probable, and suspected cases, with 11,299 deaths in West African countries (Liberia, Guinea, Sierra Leone). The estimated case fatality proportion was 40% (Nabarro & Wannous, 2016). More than 11,000 people died in nine countries as the response to the Ebola zoonotic ‘spillover’ was delayed (Ross, Crowe & Tyndall, 2015).

2.1.6 The economic impacts

Pandemic influenza represents a serious threat not only to the population of the world but also to its economy. The impact of economic loss can result in instability of the economy. The impact is through direct costs, long-term burdens, and indirect costs. The direct costs of dealing with the disease outbreak can be very high. For example, the Ebola outbreak has seriously undermined the economy throughout West Africa. (Qiu et al., 2017).

The Ebola outbreak in Sierra Leone in 2015 cost USD 6 billion in direct costs (hospitals, staff, medication), and the direct costs alone amount to 3 years of funding for the World Health Organisation (WHO) and are well over 20 times the cost of WHO’s emergency response cuts in its 2014–15 budget (Gostin & Friedman, 2015). It

has been calculated that there was an economic loss of USD 1.6 billion for the three countries compared with the economic growth in the previous year 2014 (Kern, 2016). The Global Health Risk Framework for the Future (GHRF) Commission estimates that every year on average infectious disease outbreaks cost the world about USD 60 billion in direct costs (Maurice, 2016).

The long-term burden is also severe. One of the main burdens is the loss of earnings of those who have died. Prager, Wei, and Rose (2016) have estimated that economic losses from pandemic influenza in the USA would be USD 90-220 billion, and of that, 80% would come from the value of expected future lifetime earnings of those who would die (Prager, Wei & Rose, 2016). It was estimated that the economic cost of an influenza pandemic ranges from USD 374 billion for a mild pandemic to USD 7.3 trillion for a severe pandemic (Yamamoto et al., 2020). The mathematical models indicate that a future influenza pandemic could have total costs of USD 71-166 (Qiu, Rutherford, Mao & Chu, 2017). “Recent years have seen at least six large-scale outbreaks-hantavirus pulmonary syndromes, severe acute respiratory syndrome, H5N1 influenza, H1N1 influenza, Middle East respiratory syndrome, and Ebola virus disease, which cost the world more than \$2 billion, according to World Bank calculations” (Maurice, 2016).

Indirect costs are also very heavy. They include everything that contributes to a decline in GDP. The example of SARS, especially its impacts on the region affected the 2003 annual Gross Domestic Product (GDP) of China decreased by 1% and the GDP of Southeast Asia also declined by 0.5% (Maliszewska & Van Der, 2020). “In New Zealand, Treasury examined a pandemic with a 40 percent attack rate and a 2 percent case-fatality rate, concluding that GDP in the year of the event would be reduced by 5-10%” (Maliszewska & Van Der, 2020). Some sectors of the economy

may be more heavily affected than others. For instance, Prager, Wei, and Rose (2016) estimate that the air transport industry would suffer a loss of almost 20%, or USD 7.9 billion if US residents cut down on travel. Thus, pandemics have both immediate and long-term effects that can damage the economic life of a nation for many years to come (Prager, Wei & Rose, 2016). The psychological and economic impacts of ineffective screening at airports substantially affecting directly airport business during the 2003 SARS outbreak (Chung, 2015).

2.1.7 Social impacts

The social impacts of pandemics were severe, including travel being strictly limited, and schools closing, markets and sports being closed. All these are likely realities should a pandemic with true potential for high morbidity and mortality emerge. Population mobility is also a key factor. The movement was difficult and travel including visiting families, and carrying goods to markets was restricted by military checkpoints. The closure of airports and cancellation of flights affected many people's travel, livelihood, and family life. With the rapid development in worldwide aviation over the last two decades, the risk of global pandemics has escalated with increased passenger traffic. With modern and efficient air travel, SARS, which originated in southern China was rapidly transmitted to more than 30 countries in early 2003 (Stein, 2020). Closing the airports harmed the economy of the affected regions.

School closure is often considered the first non-pharmaceutical intervention for implementation in a pandemic, as students are effective in spreading the virus. Timely school closure and cancellation of public gatherings were significantly associated with reduced mortality related to influenza epidemics during the 1918 influenza epidemic in health, culture, and society (Parmet & Rothstein, 2018). More than 1,300 public, charter, and private schools in 240 communities across the United States closed

during the spring wave of the 2009 (H1N1) pandemic (Navarro, et al., 2016). School closure also raises a range of ethical and social issues, particularly since families from underprivileged backgrounds are likely to be disproportionately affected by the intervention (Kneale, O'Mara-Eves, Rees & Thomas, 2020).

Closing markets have been tried for some outbreaks, especially for zoonotic diseases. Closure of wholesale and retail live poultry markets was associated with the cessation of zoonotic outbreaks of H5N1 and H7N9 (Peiris, Cowling, Wu & Feng, 2016). This caused a disruption of the food supply in the cities. People cannot find necessary food and living things because the market and shops were closed. This also caused a long-lasting change in people's diets. After the occurrence of avian influenza, the consumption of poultry products fell by more than 80% on average in the market of Jilin province in China (Zhang & Liu, 2016), and affected the income of many farm workers.

The public games including sporting cancelled because of public gatherings. Enforced dose contact at work and household crowding were related to a higher incidence of self-reported influenza-like illness in the 2009 H1N1 pandemic (Howard, 2021). "In some areas, fear produced an eerie quiet in usually bustling neighborhoods during the Ebola crisis in West Africa (Folayan & Brown, 2015). The disease may leave long-term physiological effects on people, which affect their ability to earn a living. Zika virus in Brazil leaves a generation of children born with neurological disorders that may impose severe lifelong limitations (Ribeiro & Kitron, 2016). The tradeoff between the social costs of interventions and the cost of the uncontrolled spread of the virus was involved in the decisions to mitigate influenza outbreaks during the Ebola outbreak (Prieto & Das, 2016).

2.2 The Concept of Educational Management

Midway through the 20th century, the United States was where Educational Management (EM) first emerged. Although Educational Management has received official academic recognition and combines prior concepts and ideas from management, bureaucracy, and administration, it has eluded a single precise definition due to its complexity (Normore & Brooks, 2014).

Educational Management refers to the 'routine maintenance of present operations ... [and educational administration indicates the] lower order duties. Wang, Pollock, and Hauseman (2018) contributed that Educational Management is all about the maintenance of educational organisations: 'Managing is maintaining efficiently and effectively current organisational arrangements. While managing well often exhibits leadership skills, the overall function is toward maintenance rather than change' (Schoemaker, Heaton & Teece, 2018).

Based on Wang's definition, Morgan (2020) further explained the importance of maintenance, as Educational Management deals with the implementation or technical issues. In contrast to these authors, Nafa (2020) argued that Educational Management is 'an executive function for carrying out agreed policy'. Nafa differentiated the definition of Educational Management from Wang, Pollock, and Hauseman (2018) and Morgan (2020) as he believed that Educational Management also includes internal policy formations and organizational transformation. Morgan (2020) further added that appropriately utilizing organizational resources would increase the organisation's efficiency and produce better outcomes.

However, Stevenson (2019) argued that this emphasis on organizational efficiency is constantly connected with managerialism, which opposes the original purpose of

Educational Management. Shaturaev and Bekimbetova (2021) also argued that while organisational efficiency is important in school management, educational management should center on educational objectives rather than purely organisational efficiency.

Other authors have taken a similar view and expanded on this argument, noting that the 21st century has seen the rise of a perverse form of neo-liberalism, whereby questionable outcome indicators and profit margins adjudge the relative value of an educational enterprise (Azorín, Harris & Jones, 2020). Educational management, Normore, and Brooks (2014) further argued, derived influence not only from bureaucracy and management but has also evolved in conjunction with other perspectives such as economics and sociology. This has added to the difficulty in defining Educational Management, an increasingly-complex term, in contemporary society.

Zhou (2018) expanded his views on Educational Management's ideal focus-educational purposes and aims with the introduction of new social and political ideologies. Whether educational goals are generated from internal meetings or imposed by outside players, he argues, Educational Management should pursue suitable goals for educational organisations rather than blindly pursuing various education objectives (Zhou, 2018). At its core, Educational Management is 'concerned with the efficient operation of educational organisations (Normore & Brooks, 2014). Modern Educational Management also focuses on educational objectives and aims which provide paths and disciplines for the institution (Care et al., 2018). Overall, Educational Management has become a complex ideology that is in dialogue with various other perspectives, including Educational Leadership, and it is

still growing and associated with more aspects of society in modern society (Zhou, 2018; Normore & Brooks, 2014).

2.2.1 Educational leadership

In their book *The Managerial Imperative and the Practice of Leadership in Schools*, Shaturaev and Bekimbetova (2021), they provided a precise description of educational leadership. Shaturaev and Bekimbetova (2021) added that educational leadership is a means of 'influencing others' actions in obtaining desirable outcomes. Leaders are those who influence the objectives, drives, and behaviours of others. They frequently make changes to accomplish both new and old aims.

Zhou (2018) expanded the definition of educational leadership by adding new levels. Effective educational leadership, according to Zhou (2018), must offer vision, resources, and encouragement in addition to standardising processes and keeping an eye on business operations. According to this definition, educational leadership refers to a group of duties performed by school administrators as opposed to something carried out by someone in a formal position of authority (Zhou, 2018).

According to some academics, theoretical development in the field of educational management has slowed down (Bag et al., 2021; Myran & Sutherland, 2019). In the realm of educational administration, there has not been any cumulative learning, claim Leithwood, Harris, and Hopkins (2020). The same worries about the lack of theoretical advancement in educational management are raised by Myran and Sutherland (2019). There is no compelling evidence to suggest that a major theoretical issue or practical problem relating to school administrators has been resolved, they further assert.

Similarly, Nicholls (2018) contends that there are not enough studies on classroom school structure in the field of educational management. Nicholls studied educational administration in classrooms and schools. Investigating the school itself rather than Educational Management theories is another idea made by Nicholls (2018); this suggestion served as the catalyst for the inclusion of Educational Management in the global education agenda (Singh, 2019).

As a result, research and practice in educational leadership began to emerge in the 1980s and soon gained popularity. The evolution of Educational Leadership in academics was also shown by Kocak and Bozkurt Bostanci's (2020) study on leadership and successful schools. Bush, Bell, and Middlewood (2019) found that effective schools share six key traits: strong administrative leadership, high expectations for all students, a remarkable school climate, a focus on student teaching, more resource support, and progress monitoring of students. More research was then conducted to further understand educational leadership once it was realised in the 1980s that it was a crucial instrument for productive schools.

Further highlighting the significance of values and purpose in educational leadership, Bush, Bell, and Middlewood (2019). Shaturaev and Bekimbetova (2021) held the opinion that maintaining educational values and purposes for Educational Leadership practice among school principals would probably increase the potential for school effectiveness in their article on the creation of the National Professional Qualification for Headship (NPQH) in the UK. Zhou (2018) reports that researchers in 12 schools spoke with more than 200 principals, employees, and stakeholders regarding educational leadership. They came to the conclusion that leadership is about the growth of everyone participating in the educational system, including stakeholders, parents, and other participants from outside the school (Zhou, 2018; Ballo, 2020).

A strong leader running an excellent school must be “visionary, passionate, creative, flexible, [and] inspiring” in addition to the significance of values, purpose, and “people development” (Zhou, 2018). However, Dirik (2020) disputed this viewpoint. Ballo (2020) contends that contemporary definitions and traits of educational leadership are arbitrary, but he nonetheless recognised educational leadership as a social influence process in which one person intentionally exerts influence over others to structure the interactions and relationships in a group or organisation. He claimed that contextual variations in settings expanded the variety of educational leadership in real practice, implying that social and structural variations will prevent all educational leadership characteristics and traits from being applied.

In line with their summary and redefining of educational leadership, Clipa and Honciuc (2020). Influence, values, and vision were defined as the three key facets of educational leadership (Clipa & Honciuc, 2020). In his writing, he distinguishes between the concepts of authority and influence. He points out that authority frequently comes from the top down and that influence can be consciously used by both people and groups. Values are yet another crucial instrument for educational leadership in the classroom. Okoko (2020) asserts that leaders must firmly establish their personal and professional principles as the foundation for all of their decisions. The significance of vision, which is "regarded as an essential component of effective leadership," was also emphasised by Okoko (2020).

Ali and Anwar (2021), building on Okoko's (2020) description, defined educational leadership as "leadership being independent of positional authority and focusing more on the ability to empower others who can influence organisational effectiveness through their talents and abilities." They asserted that increased subordinate teacher

duties and responsibilities as a result of educational leadership practice and development in schools had diminished the significance of principals.

The actions of school managers are also quite complicated, and they are a crucial resource for contemporary schools (Ali & Anwar, 2021). They supervise teachers to achieve predetermined objectives and govern the school and its operations through their fellow educators. In order to obtain the best outcomes for the company and the entire educational process, management in education entails specific actions that involve influencing and directing the work of teachers and other staff. Their work determines whether a particular school succeeds or fails. A method of influence that results in the accomplishment of desired goals is leadership. A vision for their schools is created by effective leaders based on their principles both personally and professionally. At every chance, they express their vision and persuade their team and other stakeholders to do the same (Bush, Bell & Middlewood, 2019).

Work in management is extremely responsible and complex (Helmold & Samara, 2019). Due to the intricacy of management work, the research process must take an interdisciplinary approach. According to some authors, management responsibilities encompass at least four of these aspects, which correspond to the planning, organising, leading, and controlling activities or phases of the management process (Helmold & Samara, 2019). An effective management plan enables the manager to create methods by which they would help the school advance in all of its disciplines and would transform that institution so that its students' learning is at a high level and they achieve high educational objectives (Helmold & Samara, 2019).

Effective management assesses changes in their setting and gives them vision, purpose, and direction (Kolditz, 2022). Strategic leadership provides answers to 4 important issues; it is not a micromanagement technique. (1) What (clear aim and vision), (2) How (create a plan outlining the steps staff members will take to achieve the assigned goals), (3) When (when), (4) Where (where), and (5) Where (at which location) (Kolditz, 2022, p. 149). Every school ought to have a plan in place that it can show to its staff, parents, and the neighbourhood. In addition to creating and presenting the strategy, strategic management also entails its successful execution (Bryson & George, 2020).

Today's school managers are in charge of the work of a bigger group of individuals, including students, school board members, parents, politicians, teachers, local business owners, and union members (Maxwell, 2019). According to Gurr and Drysdale (2021), effective school managers employ more leadership techniques to inspire teachers and boost student achievement. These techniques include setting clear goals, emphasising students' successes, enhancing school procedures, consulting with teachers and the local community, hiring qualified staff, and assembling a strong management team.

Making decisions effectively is a leadership trait that is crucial for a school management to succeed (Piccarozzi, Aquilani & Gatti, 2018). The leader of the team must ensure that the importance of the decisions' impact on the school is communicated when the team members collaborate to make decisions (Holt, Hall, & Gilley, 2018). Research on the effectiveness of school management has been focused on a variety of topics, including personality and trait analyses of managers (Krstikj et al., 2022), strategies, concepts, and management models, as well as the competencies necessary for effective school management (Piccarozzi, Aquilani & Gatti, 2018).

Since every school is different and operates in a different environment, numerous social community influences must be present in order for the leadership role of the school management to be successfully carried out (Fonsén & Soukainen, 2020). Within this diversity, school managers who possess the necessary professional credentials, engage in effective democratic communication and work to advance their careers will be more successful (Fonsén & Soukainen, 2020). It was further stressed that professional development must extend beyond organisational issues in school management to include pedagogical leadership responsibilities (Fonsén & Soukainen, 2020).

Without quality control, an organisation cannot complete a task (Karakose, Yirci, & Papadakis, 2021). In order for other parties' tasks to be fulfilled properly and effectively, school administration include coordinating and controlling such tasks (Karakose, Yirci, & Papadakis, 2021). As a philosophy of school management and leadership, modern management offers its insights to more effectively and successfully carry out predetermined aims (Karakose, Yirci, & Papadakis, 2021).

Planning, organising, leading, and controlling are the four fundamental managerial functions that Samson, Donnet, and Daft (2020) claim exist inside the educational process. Effective school administrators have a variety of abilities and apply them in interpersonal interactions. They also have an impact on the development of an ethical culture and make significant investments in their staff members' mutual understanding (Apriana, Kristiawan & Wardiah, 2019). The management communication and other skills of the school manager are largely responsible for an organisation's strength (Apriana et al., 2019).

2.2.3 The period of educational administration for school organisation

In order to attain school efficacy and the development of human capital, the idea of educational administration that predominated in the 1920s and 1930s was a systematic, scientific management practise (Leitera, 2019). The promotion of spiritual values and upholding social ties within the school community were the key concerns of educational leaders who were seen as administrators at this time (Sá & Serpa, 2020). The management of effective and efficient schools and school systems was the responsibility of educators and administrators as "scientific managers" (Ballo, 2020). Organisation and workforce management were regarded as essential elements of school administration. It was further indicated that by developing degree programmes and specialised courses of study to train educational administrators during this time, university-based educators helped to shape educational administration as a profession (Hofer, Nistor & Scheibenzuber, 2021).

2.2.5 The period of educational management as a form of activity and action in school organisation

The idea of a school "as a business" gained popularity during the 1960s and 1970s as the field worked to improve the operations of educational organisations (Spicer, Jaser, & Wiertz, 2021). The fundamental goals of educational management were to explain, comprehend, and theorise strategic and operational issues pertaining to educational enterprises (Brooks, & Brooks, 2019). Within educational institutions, management was viewed as a superior kind of activity and action that embraces problem-solving techniques (Brooks & Brooks 2019).

According to Spicer, Jaser, and Wiertz (2021) the headteacher's role in the 1960s was that of a "bureaucratic administrator" who made decisions about curriculum and pedagogy and took action about local and national resource allocation. The role of the

headteacher as "chief executive" was on the rise by the middle of the 1970s, and headmasters were framing their professional practices in management terms to give accountability and responsibility. At the time, the headmaster served as a dual role model, serving as the "CEO" of the educational system and utilising the terms "administration" and "management" interchangeably (Brooks & Brooks, 2019).

The "effective school" movement began in the 1970s with a focus on equity and effectiveness, and principals who were viewed as "humanistic facilitators" were also supposed to provide worthwhile educational opportunities to students, instructors, staff, and community members (Montecinos et al., 2022). Additionally, as discussions about the work of the principal became dominated by quantitative and empirical research, school administrators transformed into on-site researchers (Brooks & Brooks, 2019). The traditional postgraduate courses in educational administration in universities gradually aligned as a result of the field members' response to adopting business management in universities and polytechnics. Graduate programmes in Educational Administration and Management were developed at numerous universities in the United States, the United Kingdom, and later in other Western countries throughout that time, and both the quantity and quality of research increased (Sousa & Magalhes, 2019). bring about change (Hartley, 2018).

2.2.9 Educational administration

Any educational institution that has objectives or aims to achieve can use the concept of educational administration (Bush, 2020). The field of educational administration was created as an application of sociology, anthropology, psychology, economics, and politics, with the administration of institutions intended to support teaching and learning as the main focus (Prasad, 2020).

Since the field of educational administration was established, researchers in the area have concurred that there are no distinct boundaries for the body of cumulative knowledge, there is no coherent conceptual unity, and there is no general agreement on the theoretical issues in the area (Evans, 2022; Bush, 2020). The process of integrating the necessary human and material resources that are made available and made effective for attaining the goals of a programme of an educational institution is referred to as educational administration. Bush (2020) asserts that due to the field's practical nature, lack of theoretical agreement, low level of research methodology, and political nature, educational administration has never been given a "high status in the academic community" as a theory or research area.

According to Wang and Bowers' (2016) research, educational administration is a field that engages with other disciplines like economics, human resources, sociology, psychology, and international research as well as subfields of education like teacher education. Ballo (2020) makes a similar case, claiming that educational administration is a field with various specialisations in areas including politics, organisational studies, school effectiveness, leadership and supervision, human resource management, and equity issues. Additionally, according to Ballo (2020), the word "educational administration" encompasses a wide range of concepts and practises that reflect stark ideological contrasts among distinct groups working in the field.

Ballo (2020) asserts that due to the practical nature of the activity, the lack of agreement over theoretical issues, the low level of research methodology, and the political nature of the field, educational administration has never enjoyed a particularly "high status in the academic community." The field of educational administration studies the administrative theory and practice of education in general, as well as that of educational institutions and teachers in specific contexts.

Many school leaders now face a conundrum over whether to focus on leading as professionals or on being an administrator bureaucrat who focuses on the technical and administrative workload of school activities because of the 1990s' increased attention to effective leadership for school improvement (Berkovich, & Bogler 2020). Berkovich, & Bogler (2020) create a distinction between "leadership" as tasks to enhance staff, pupils, and school performance, "management" as routine maintenance of present operations, and "administration" as lower duties due to the misunderstanding of school leaders in selecting the balance between them.

Many academics have questioned whether distinguishing between leadership, management, and administration is useful for practice and analysis, even though the goal of educational administration as a field of study is to transmit and develop theoretically grounded knowledge to guide the practice of educational organisations (Evans, 2022).

2.2.11 Leadership and leadership style

A person's ability to engage, mobilise, and steer other people and resources towards the accomplishment of some shared objectives is known as leadership (Canterino et al., 2020). According to Canterino et al. (2020), the term "corporate leadership style" refers to a variety of habitual leadership styles. Long-term personal experience and leadership practice eventually shape the habitual leadership style, which exhibits great individuality in the leadership practice either consciously or unconsciously (Kouzes & Posner, 2017). Every leader has a unique style that is influenced by their work environment, background, and personality and sets them apart from other leaders. Leadership style study has theoretical validity and practical significance since it can better represent real-world leadership activities and explain variations in leadership effectiveness (Shaturaev & Bekimbetova, 2021).

Leaders motivate and inspire their followers. They have a set of abilities that can inspire and assist others in believing in the possibility of the shared future. Effective leadership is crucial for every organisation or type of administration in order to carry out organisational tasks correctly and to get the appropriate output and performance from its personnel. Different leadership theories and ideas exist, including the theories of transformational leadership, trait-based leadership, and ethical leadership.

Leaders employ a variety of traits that are connected to their leadership style while dealing with their subordinates (Kouzes & Posner, 2017). Al Khajeh (2018) believes that someone uses a leadership style in a relationship by getting other people to cooperate in order to achieve a common objective. According to Hilton, Madilo, Awaah, and Arkorful (2002), contemporary leadership styles include transformational, transactional, visionary, and charismatic leadership. The effectiveness of an organisation is significantly correlated with the leadership style.

Al Khajeh (2018) has also researched how different leadership philosophies affect the performance of small and medium-sized businesses. According to the study's findings, it was also discovered that the performance of small and medium-sized businesses is positively yet negligibly impacted by the transformational leadership style. According to Ahmed, Nawaz, and Khan's (2016) prior analysis of the literature on leadership theories and practices, transformational leaders are most effective at raising the performance of their team members.

2.2.13 Type of leadership styles

In this subheading, different types of leadership styles and their attributes are discussed based on the reviewed literature.

2.2.13.1 Transformational leadership

It is a method of leadership in which the leader motivates and imparts his or her qualities to those who follow him or her so that they grow to have a sense of identification and responsibility for the organization's goals (Northouse, 2016). Because it offers followers opportunities for personal growth and development, transformational leadership ultimately aims to develop followers into future leaders. Transformational leaders are aware of their followers' assets and shortcomings so they may assign assignments in accordance with each follower's skills and talents. All followers will be able to do their tasks successfully in this fashion, and as a result of feeling satisfied with their performance, they will be inspired to work towards performance optimisation (Northouse, 2016).

A dyadic relationship between leaders and followers will logically evolve as a result of transformational leadership since it enables the development of similar leaders' and followers' beliefs about the importance of each organisational aim (Gutu, Agheorghiesei & Alecu, 2022). As a result, the followers will experience a great level of encouragement and satisfaction. Additionally, a strong bond will be established as a result of which followers will have greater faith in their leader. According to Northouse (2016), a high-quality exchange relationship between leaders and followers is closely related to followers' loyalty to the organisation, contentment with their leader, and work satisfaction.

Additionally, by utilising dyadic ties to develop, followers will focus their efforts on organisational objectives. Job happiness is crucial for proper performance and obedience on the part of followers. The followers will be pleased with themselves as well as their job and experience job satisfaction since they have high-quality

relationships, similar perceptions, trust in leadership, and a sense of achievement by completing the organisational responsibilities (Algohani, & Mydin, 2022).

2.2.13.2 Authentic leadership

Genuine concern for others, trust, fairness, honesty, and open communication are all characteristics of authentic leadership (Muniandi, Richardson & Salamzadeh, 2021). The four primary elements of authentic leadership, according to Landesz (2018), are self-awareness, relational transparency, balanced processing, and a strong moral code. Because transformative leadership can be false, it is a subset of transformational leadership. Nevertheless, in order to encourage genuine conformity among followers, transformative leadership must be honest. The concept of authentic leadership is still developing in the business sector. Authentic leadership is the belief that people view leaders as sincere and "real." Unola and Alvesson (2002).

In addition to being authentic, leadership requires other skills. According to research, the best predictor of an employee's job satisfaction, organisational commitment, and pleasure at work is authentic leadership (Gardner, Karam, Alvesson & Einola, 2021). Authentic leadership is a position-transcending leadership via presence, according to Alvesson and Einola (2019). This implies that while these people are aware of their potential and urge themselves to be inspired by those leaders who may be designated at a lower level of the organisation, they can occasionally be both authentic leaders and their followers.

An authentic leader has a good impact on followers, employees, and organisations, according to Yavuz (2020). Subordinates' talents are nurtured and developed into strengths through real leadership behaviour. They think a true leader practice what they teach and makes recommendations that are in their best interests. According to

Alvesson and Einola (2019), followers regard authentic leaders as true, moral, organic, and trustworthy role models.

Authentic leaders act in a way that makes them appear genuine while empowering subordinates. Practice and research indicate that authentic leadership encourages followership of the leader's proposals and inspires trust in followers. A leader's sincerity aids him or her in achieving more effectiveness in this way. The inter-relational clarity and confidence of followers in their leadership are greatly improved by authentic leaders' promotion of ethical behaviour in society or an institution (Terkamo-Moisio et al., 2022).

2.2.13.3 Ethical Leadership

The fundamental characteristics of ethical leadership, in accordance with Sharma and Panicker (2020), include honesty, decency, respect for others, impartial judgement, the ability to uphold ethical standards consistently, and the capacity to communicate effectively with staff. Zhang et al. (2019) found that moral leaders incorporate moral standards into particular values and beliefs in public organisations. They also engage in certain behaviours that are advantageous to and valued by their followers.

To fulfil the requirements of both legal and ethical norms, however, many academics work to explain how some leaders successfully handle complex situations in organisations. As a result, ethical leadership comprises both the leader's characteristics and demeanor, such as honesty, compassion, making just decisions, etc. (Asif et al., 2020). According to Saha et al. (2020), ethical leadership is a leadership style that respects other people's interests and demands ethical behaviour. According to Urick, Carpenter, and Eckert (2002), an organisation's ethics are defined as its attempt to establish its mission and values, acknowledgment of values that lead

to difficult circumstances and issues, formulation of solutions to conflicts, and management of the operations to uphold its values.

According to Asif et al. (2020), moral leaders strongly encourage moral behaviour in their subordinates, offer ethical direction, clearly express ethical standards, and foster a clear sense of accountability for both moral and immoral behaviour. The organization's tool for addressing ethical problems is the ethics process. All the qualities, abilities, and skills required for the organisation to operate effectively are possessed by ethical leaders. To achieve the required goals, it is imperative that students learn and develop these qualities, as well as have a sufficient comprehension of them.

Ethical leaders demonstrate ethical behaviours, treat their followers with respect, and are authentic, believable role models for their teams. According to Zhang et al. (2019), ethical leadership predicts some of the outcomes of the employees' work, such as the leader's effectiveness, satisfaction, eagerness to put in extra work effort, and-most importantly-willingness to report ethical problems. Asif et al. (2020) confirmed that ethical leadership along with interactional justice promotes followers' perceptions towards the ethical climate.

Since employees concur that their leadership is accurate, egalitarian, humane, honest, and courteous, ethical leadership is a reference to employee morale (Brownlee, 2020). According to Brownlee (2020), ethical leadership's responsibilities include acting as an ethical role model, being trustworthy, ensuring the best interests of employees, treating them fairly, maintaining employee compliance with ethical standards, and taking corrective action whenever an ethical standard has been broken. Teimouri,

Hosseini, and Ardeshiri (2018) found that ethical leadership has a favourable impact on the psychological wellbeing of employees.

The efficacy of a leader is regarded as contingent under the contingency theory of leadership, regardless of whether their leadership style is appropriate for the situation (Northouse, 2016). Additionally, the theory contends that certain circumstances may render a person ineffective or ineffectual as a leader. According to this hypothesis, one could boost their chances of succeeding as a leader by having the analytical skills necessary to determine whether or not a particular leadership style would be useful in a given circumstance. One should be self-aware, objective, and adaptive in particular circumstances (Northouse, 2016). Contingency theory is crucial since it examines dependent and independent variables to create a productive work environment, claim George, Walker, and Monster (2019). Enhancing employee work surroundings can boost a company's overall success.

2.2.13.4 Transactional leadership

A leadership style called transactional leadership, which is often referred to as managerial leadership, uses rewards and penalties to ensure that employees perform to their full potential. Based on an exchange or transaction, the transactional executive leadership model was developed (Udovita, 2020). According to Lauck (2019), bartering is another name for transactional leadership. Instead of different forms of concrete benefits (like a wage) that the leader controls, it is based on an exchange of followers' services (Lauck, 2019).

Additionally, it is predicated on the belief that individuals prefer to be led rather than held accountable for their deeds and choices (Grandia et al., 2020). Transformational leadership and transactional leadership are frequently seen as complimentary. The

need to move a school from low performance to acceptable performance or from acceptable performance to exceptional performance is a common challenge for educational administrators (Grissom, 2019). The school administrators are required to shift firmly from crisis mode to high ground at other times. The transformational leader makes an effort to have a strong teacher commitment to the school in order to achieve these goals (Aunga & Masare, 2017). It is no longer possible for the head teacher to serve as the single leader in a school due to the widening scope and complexity of leadership tasks (Grissom, 2019).

This type of leadership involves encouraging employees or subordinates to perform a task in exchange for a benefit (Northouse, 2016). Promotions, more duties, higher pay, and benefits can all be part of the reward. Employee obedience and compliance are encouraged through rewards and sanctions, where higher performance will receive greater benefits. In transactional leadership, managers compensate staff based on how they behave (Ahmed, Nawaz, & Khan, 2016). These are the fundamental actions that transactional leadership involves: setting goals for teams, giving staff directives, processing paperwork to help teams reach the goals, and rewarding team members (Sivarat, Thamma, & Kenaphoom, 2021).

2.2.13.5 Laissez-faire leadership

When leading and making decisions, leaders appear to be laissez-faire and delegate all authority to the subordinate (Thanh & Quang, 2022). Leaders that practise laissez-faire have a trusting and dependent attitude towards their workforce. They don't micromanage or become overly engaged; they also don't provide excessive instruction or direction. Laissez-faire leaders, on the other hand, allow their staff to use their innovation, resources, and expertise to assist them in achieving their objectives (Ahmed Iqbal et al., 2021). Additionally, those that follow this leadership style are

seen as self-rulers, although help and oversight are also given when necessary. The hands-off leadership style is another name for the laissez-faire leadership style. It is one in which the boss allows workers as much latitude as possible while offering little to no direction. Between superiors and deputies, this communication style appears straightforward and informal (Antwi-Boampong, 2020). Laissez-faire leaders don't exert much control over their followers and give them the flexibility to do their work on their own without being directly supervised (Aunga & Masare, 2017).

The laissez-faire leadership style, according to Aunga and Masare (2017), is a free-reign style where the leader doesn't lead but instead gives the group complete autonomy. Such a ruler gives his followers the most freedom possible. They are allowed the freedom to choose their strategies and policies. The leaders that employ this style of leadership, according to Mshelia and Olukayode (2021), feel that since everyone has an innate sense of duty, there shouldn't be any laws or regulations.

A laissez-faire leadership style, according to Oyugi and Gogo (2019), is unsuitable for usage by school administrators since total delegating without follow-up methods leads to performance issues. They emphasised once more that when given the chance to make their own choices, both teachers and pupils are driven. According to Gadirajurrett et al. (2018), laissez-faire, also known as "delegative leadership," evaluates each employee's unique skills and creates an environment at work that is ideal for workers with resourcefulness and forward-thinking intelligence. As long as they do not interfere with the organisation, employees are free to execute jobs utilising their skills.

2.2.13.6 Democratic leadership

Democratic leadership, often referred to as participative leadership or shared leadership, is a leadership style in which group members engage in the decision-making process, according to Al Khajeh (2018). This leadership approach describes circumstances in which a leader consults a subordinate before making a choice. In this leadership style, the decision-maker may ask for feedback from the group when drafting ideas before making a final choice (Shibo, 2016) or may first seek the subordinates' opinions on a proposed course of action.

According to Aunga and Masare (2017), educational administrators need to be aware of the strategies that work and fail in various contexts. The democratic leadership style used by educational administrators, such as proper task delegation, relieves school administrators of their numerous responsibilities while also instilling in their subordinates a sense of accountability, commitment, and hard work, which improves performance (Wanjiru, 2016).

A democratic leader, according to Iqiri (2019), solicits suggestions and feedback from the workforce. He provides them an opportunity to voice their opinions on the proper course of action. Although the manager takes into account the suggestions and opinions of the staff, he nevertheless has the final say. Reasons and circumstances for decisions that have an impact on the team members, division, or organisation are promptly communicated (Aunga & Masare, 2017). Democratic leaders demonstrate attention and care for others by listening with empathy and comprehending their viewpoints. They encourage free communication among all staff members, regardless of level. Any organisation, including the government, schools, and private firms, may benefit from this kind of leadership. An entity that provides for equitable participation of everyone in the decision-making process must have democratic leadership.

This leadership approach places a focus on decentralised decision-making that is shared by all followers. There is a significant chance that this kind of democratic leadership will make poor choices and perform poorly. Since these leaders regard their followers' opinions and perspectives, the leadership style is well-liked for motivating employees to do well (Ahmed, Nawaz, & Khan, 2016).

2.2.13.7 Autocratic/Authoritarian leadership

The independence of the leader's decision-making is safeguarded by this leadership style (Gultom & Budiyanto, 2022). These leaders come out as bossy and demand that their followers follow their directives. An individual who practises authoritarian leadership, often referred to as autocratic leadership, has complete decision-making authority and ultimate control over his subordinates (Gultom & Budiyanto, 2022). Authoritarian leadership, according to Chukwusa (2018), is acquired through punishment, threats, demands, orders, rules, and regulations. According to Kembo, (2021), the roles of authoritarian followers include obeying the leader's commands without question or criticism. Authoritarian leadership functions include unilateral rule-making, task assignment, and problem-solving.

According to Igiri (2019), authoritarian leadership is appropriate in situations with a continuous influx of new personnel, little time or money for decision-making, and the necessity for extensive collaboration with other groups and organisations. Subordinates of authoritarian bosses exhibit hostile or indifferent behaviour. According to Aunga and Masare (2017), productivity is marginally higher under an authoritarian leader than under a democratic one. Authoritarian leadership involves the majority or all of the choices being made by the leaders without the participation or input of the workforce.

Authoritarian bosses explain to their followers what needs to be done, how it should be done, and by when (Iqiri, 2019). This kind of boss is likely to disregard advice given by subordinates. This particular leadership style may be effective in situations where making quick decisions is important because there may not be enough time to talk with the team about their involvement (Shibo, 2016). These leaders tend to be uncreative and favour one-sided communications. Only a brief period of time is thought to be appropriate for this leadership style in an institution (Bhargavi & Yaseen, 2016). An autocratic leader restricts socialising and communication practises, despite the fact that these are crucial for effective and successful organisational efficiency. Conflicts arise with this type of leadership, which could harm an organisation's overall performance (Gultom & Budiyanto, 2022).

2.2.13.8 Virtual leadership

According to Elyousfi, Anand, and Dalmaso (2002), virtual leadership is the management of groups or individuals operating from remote places. In virtual leadership, as in traditional leadership, the emphasis is on inspiring employees, fostering a team, good performance, and goal achievement. Effective technology, such as dependable internet connections, is required for virtual leadership to function efficiently (Garro-Abarca et al., 2021).

Mehtab et al. (2017) examined earlier research on virtual teams and virtual leadership to assess how virtual teams are emerging in the modern, technologically advanced environment. It was discovered that trust and effective communication among team members are essential for virtual teams to succeed and achieve their goals. In a virtual organisation, the leadership must bring all team members together because communication is limited by its very nature. In the end, the team members collaborate virtually (Mehtab et al., 2017).

Virtual enterprises have faced significant hurdles in fulfilling the changing and rising needs of their businesses in today's competitive business climate (Hoang, 2022). The use of virtual teams is increasing in order to enhance performance and make the best use of resources and talent (Castellano et al., 2021).

To address the expanding demands of the competitive business climate, virtual teams enable an organisation to develop knowledge by overcoming geographical and time constraints (Charteris, Berman, & Page, 2021). Virtual employment offers a business significant flexibility and improved responsiveness. However, in order to improve the functioning of virtual organisations, it is vital to solve their problems. Virtual leadership is a style of management where teams are overseen through a distance-learning setting. Like conventional leadership positions, virtual leadership focuses on motivating staff and assisting teams in reaching their objectives (Newman & Ford, 2021).

2.2.13.9 Leadership in terms of pandemic

According to Martin Luther King Jr., "The ultimate measure of a man is not where he stands in moments of convenience and comfort, but where he stands at times of challenge and controversy." (King, 2015). It is true that it is simple to act morally and speak honestly when times are good, but it is far more difficult to do so while dealing with a catastrophe of this magnitude, such as the coronavirus pandemic.

According to a study by Mukherjee and Mukherjee, crisis management leadership is necessary to cope with the variety of crises that might emerge in today's world and have a significant influence on business and the economy. Leadership must be able to conduct scenario analysis and develop team collaboration in order to manage a crisis. Additionally, in order to allay staff members' worries and questions, crisis

management leaders must provide them free rein to express their opinions and express their concerns (Bhaduri, 2019).

According to OECD (2020), the COVID-19 epidemic significantly reduced the demand for Swedish service exports, and SMEs experienced a fall in business. Although the economy has suffered economically, the government has continued to support SMEs and the economy by injecting money funds, ensuring that workers' salaries are paid and they are not laid off (Organisation for Economic Co-operation and Development, 2020).

In order to manage the COVID-19 crisis, a leader or manager should adopt seven leadership qualities, according to Brownlee (2020), including active listening, humility, candour, empathy, adaptability, and flexibility. They should also be able to manage hybrid teams. Candour is the term used when there is no room for doubt regarding someone's sincerity (Brownlee, 2020). It may be argued that honesty is the only remedy for cynicism and anxiety in the job. People react to the known far better than the unknown, which seems to cause greater anxiety, and they react the worst to false half-truths or foolish optimism, which could shatter confidence (Brownlee, 2020). There is a need for a leadership style that can manage crises and be successful in assisting organisations in dealing with the current situation during the COVID-19 issue.

For those in charge of today's most important institutions, the speed and magnitude of the coronavirus outbreak undoubtedly present tremendous problems. It is simple to comprehend why so many people have passed up chances for forceful action and open dialogue. According to Beilstein et al. (2021), new information is continuously acquired throughout a crisis. Although they may have a plan, great leaders know that

they will also need to adapt it to these new realities, sometimes even scrapping the plan and beginning over (Drucker, 2017). Leaders must assume responsibility during crises and do so openly. When a leader is accountable and shares risks with their followers, according to Ahern and Loh (2020), it is a significant act of solidarity with the numerous employees and other people who suffer personal hazards as a result of the pandemic. Effective leadership is essential at all times, but it's especially important in tumultuous or unstable situations (Matarazzo & Pearlstein, 2016). It can be tempting to act quickly and make judgements without consulting others during trying circumstances. Consensus-building can be challenging in fluid environments where things change quickly (Chen et al., 2019).

The best leaders bring everyone to the table, according to Philip Jennings, a former general secretary of UNI Global Union (Jennings, 2018). He stated, "Those who have weathered this crisis best have listened to their workers, have engaged in dialogue with their labour movements and civil society, have respected them, and have relied on them for guidance" (Jennings, 2018). Leaders during a pandemic put aside disputes, rivalry, and profit and loss statements to find their position to survive the pandemic we are currently experiencing, which involves reinventing business models and mobilising groups within firms to concentrate on crisis management (Jennings, 2018).

2.3 COVID-19 Pandemic and Teaching and Learning

The COVID-19 pandemic has put existing norms and conventions of behaviour to the test; due to the disease's novelty and the paucity of approved therapeutics in some countries, non-clinical measures like social isolation and hygienic practices are now the most practical ways to combat the pandemic. Practically every element of human existence is impacted by these policies, including education. To prevent the sickness

from spreading through social interaction, schools, universities, libraries, and other educational institutions were shut down in accordance with disease management guidelines (Jandri, 2020). Setiawan (2020) reports that numerous issues that affected both teachers and students were noted.

According to UNESCO (2020), the closure of educational institutions in various forms affected more than 70% of the student population worldwide. While this was going on, some nations had localised closures while others experienced national closures (Education Cannot Wait, 2020). In order to understand the experiences of the education sector across many contexts, this section reviewed pertinent papers.

Concern over how education can be managed during the COVID-19 epidemic was voiced on a worldwide scale. A recent study by Reimers and Schleicher (2020), published by the OECD in response to this issue, examined the educational responses to COVID-19, methods used by various nations to provide teaching and learning to students, and instructional training and development for teachers and parents during the stay-at-home period. As a result, nations are changing their paradigms. For instance, China, Japan, Malaysia, the United States of America, the United Kingdom, South Africa, South Korea, and other nations affected by the COVID-19 virus have switched to remote teaching and learning methods (Ebner et al., 2020).

Following the COVID-19 epidemic in China, the Chinese government swiftly ordered the closure of all public schools nationwide and launched an emergency home-schooling programme through the Ministry of Education (Wang et al., 2020). This strategy includes broadcasting TV shows and offering structured training online. In a different study, Zhang et al. (2020) described how China implemented a strategy

dubbed "Suspending Classes Without Stopping Learning" (Zhang et al., 2020) to manage educational emergencies.

By reducing in-person instruction at schools and switching to the online learning paradigm, the policy was created to stop the epidemic from spreading (Kaden, 2020). It intends to incorporate instructional resources and offer all students across the nation rich, varied, high-quality online resources. According to Zhang et al. (2020), the policy promoted both instructors' online instruction and kids' online learning. The effectiveness of this policy's implementation, however, is hotly challenged, as is the viability of online learning in comparison to conventional in-person learning.

Additionally, a group of medical professionals at the University of California in the USA established a number of models to impart knowledge to surgical residents, lessen the loss of in-person academics, and prevent mass casualties among surgical residents (Chick et al., 2020). According to Chick et al. (2020), their creative approach to teaching and learning during the pandemic includes online practise questions, teleconferenced academic conferences, telehealth clinics with resident participation, and movies that facilitate surgical use.

According to a study by Reimers and Schleicher (2020), majority of European nations are assisting with education during the pandemic by offering digital content and instructional materials to facilitate online distance learning. For instance, the Ministry of Education in the Czech Republic has introduced a website¹ with online learning resources. In Estonia, a similar strategy is used, where the Ministry of Education and Research collaborates with Foundations to offer assistance and recommendations for distant learning in order to maintain continuous academic education.

For Finnish students, the same strategy is being used by the Finnish National Agency for Education, which is advising schools on how to structure various forms of flexible learning by utilising well-established online educational platforms. A free educational platform called "My class at home" is utilised in France to deliver virtual lessons, allowing for the preservation of the human connection between students (Reimers & Schleicher, 2020).

According to Reimers and Schleicher (2020), government-sponsored online distance learning was implemented in public schools using Microsoft Teams, Television Schools, and online portals. Zoom, Slack, and Google Meet were also occasionally utilised as alternatives. Additionally, their study reveals that Microsoft TEAMS has established virtual classrooms for all academic classes and subjects. Over 600,000 students and 55,000 teachers in public schools were actively profiled on Microsoft Office 365 for online learning during the COVID-19 pandemic, according to a study by the Georgian government agency Education Management Information System (EMIS) (Reimers & Schleicher, 2020).

According to UNESCO data on the effects of COVID-19 on education at the time this analysis was undertaken, all African nations save Burkina Faso have closed all of their educational institutions on a national level (UNESCO, 2020). This shows that if alternative methods of teaching and learning are not offered, the impact would be felt greater in the regions that experienced a national closure. For instance, the study by Ojo and Onwuegbuzie (2020) in the case of South Africa found that the decision by several universities to open their schools for online learning in April 2020 caused mixed emotions among their students. The majority of pupils voiced their displeasure about a number of difficulties they encountered while studying at home. The study

found that factors including home noise and disturbances, spotty Internet access, and unstable electricity have an impact on students' academic performance.

Additionally, the South African government had mandated that each university create a mitigation strategy, which included using online study delivery as a substitute for traditional classroom instruction in order to stop the disease's spread (Chothia, 2020). While it appears that COVID-19's devastating effects on education have led most countries to look for alternatives to traditional classroom settings, South African scholars have expressed concern over the level of training and experience that educators have in the pedagogy necessary to deliver online learning effectively (Hedding et al., 2020).

Research by Mhlanga and Moloji (2020) described the establishment of the "STEM Lockdown Digital School" as part of the endeavour to increase learning possibilities while there is a lockdown in South Africa. Mhlanga and Moloji (2020) describe this programme as one in which more than 34 public and private school teachers were arranged to instruct via a live stream on "Africa Teen Geek's" social media platforms including Facebook and Twitter. There have been reports of a similar experience in northern Africa. For instance, according to research from Egypt, the majority of private colleges in the nation have shifted to online instruction using Moodle, Microsoft Teams, email, and Zoom (Crawford et al., 2020).

Over 39 million pupils in Nigeria, including those in pre-primary and higher education, were ordered to stay at home throughout the pandemic (UNESCO, 2020). As a result, students encounter difficulties in getting the mentoring, counselling, and other forms of support that are readily available in a face-to-face learning setting. Additionally, the effects of closing schools due to the COVID-19 outbreak do not

exclude instructors. According to reports from various regions of the world, teachers may be laid off temporarily or permanently during and after COVID-19 (Hernandez, 2020). It is crucial to look at how the situation is being managed, the steps headteachers have made, and what has been done in various circumstances in light of the review that has been mentioned. Therefore, this subheading analysed relevant studies about the impact of the COVID-19 pandemic on instructional management in schools that were undertaken in a distinct environment (global and local).

2.4 Educational Resources available in Managing the Impact of the COVID-19 Pandemic

The tools that teachers and instructors use in schools to help pupils learn and grasp concepts are known as educational resources (ERs). To support the learning objectives outlined in the lesson plans, these are the educational resources used in the classroom (Teaching Learning Materials, n.d.). ERs have been used in the educational system for a very long period. The primary function of the ERs in the classroom setting is to make learning engaging, applicable, and enjoyable for the students. Additionally, teachers use ERs to clarify or reinforce a concept, skill, or viewpoint. The addition of innovation and freshness to the classroom setting is another important function of ERs (Teaching Learning Materials, n.d.). It is crucial that educators have the necessary knowledge and information about using ERs. In other words, they should be knowledgeable on how to use ERs and skilled in doing so. The primary factors that must be considered while using ERs are student grade levels, subjects, learning styles, and academic objectives.

The teaching-learning tools give the students a variety of experiences. When properly applied, they can be utilised to encourage students to pursue their education (Teaching Learning Materials, n.d.). According to research, many kids leave school before

developing their academic talents (Teaching Learning Materials, n.d.). This is primarily due to a lack of academic concept understanding. Typically, students drop out of school because they struggle in the classroom and receive poor grades. Students suffer setbacks when teachers are unable to employ efficient teaching-learning techniques. According to studies, fifth-graders are unable to read textbooks for third grade. This is a result of inadequate teaching and learning resources as well. Effective teaching-learning materials must be used in order to improve the educational system and help individuals accomplish their academic goals.

2.5 Significance of Educational Resources

By assisting teachers with the presentation and transfer of educational knowledge as well as the accomplishment of educational goals, ERs' major significance is recognised in the classroom setting. The ERs are implemented by educators with the main purposes of educating students about academic topics and assisting them in achieving their goals and objectives. Five factors are typically used to describe the importance of ERs. These include fostering student motivation, encouraging the processes of interpreting, understanding, organising, and amalgamating the educational content, logical thinking, reasoning, and communication, as well as helping students develop a variety of skills, values, and attitudes while enabling them to effectively understand the academic concepts. According to Busljeta (2013), teaching-learning materials are the means by which the required educational content is presented and transmitted.

It is possible to distinguish between the ERs based on a number of traits that are immediately noticeable. The pupils must have a variety of skills when these are applied in diverse educational settings. For instance, it is crucial for them to obtain effective understanding when they use technology to produce their assignments,

papers, or projects. The division of teaching-learning materials into visual, auditory, and audio-visual formats is widely recognised in the fields of didactic theory and classroom instruction (Busljeta, 2013).

Additionally, having strong communication skills is critical for both educators and students, especially when using any kind of teaching-learning resources. Understanding between pupils will be facilitated when educators are able to communicate effectively. However, students will be able to efficiently understand the academic topics if they improve their communication skills. The creation of teaching-learning materials requires cooperation between educators and students.

2.6 Objectives of Teaching-Learning Materials

Teaching and learning materials' main goal is to inspire pupils to pursue an education. These are typically employed by teachers to help and encourage students in achieving academic goals. The following primary goals have been listed (Teaching Learning Materials, n.d.).

Encourage students-In the classroom, the teachers use a variety of teaching-learning resources rather than just one. When they employ them, they make sure that pupils can enjoy themselves and become inspired to learn. Students grow interested, enthusiastic, and motivated to learn as a result.

Development of Teachers' Knowledge and Skills the teachers are able to advance their knowledge and abilities by effectively implementing teaching-learning approaches. They are able to raise awareness about how to effectively apply this knowledge in carrying out their professional responsibilities. In order to accomplish their educational goals, they must utilise these abilities.

Help in Longer Retention of Information: When adopted, ERs should make sure to aid in information retention for a longer period of time. When students give ERs the proper attention, they are able to increase longer knowledge retention in addition to acquiring a thorough understanding of the concepts.

Facilitate Holistic Learning—Through ERs, teachers not only help students better understand academic subjects, but they also work with them to advance their psychomotor, cognitive, and intellectual growth. As the development of these elements is thought to be crucial for encouraging efficient decision-making and logical thinking.

Help with Classroom Organisation: Teachers are able to spread understanding about the application of lesson plans and ideas. They are able to design and organise the teaching methods inside the classroom when they are using teaching-learning techniques in the right way. Additionally, they have the capacity to spread conceptual understanding.

Promoting good Communication-The adoption of appropriate teaching-learning strategies aids in fostering good communication between teachers and students as well as among students. Both spoken and written communication are used in their interactions. As a result, both communication channels are encouraged among teachers, students, and the actual students.

Facilitating Attitude Change: By utilising teaching-learning techniques, both teachers and students can influence changes in attitudes and behavioural characteristics. Students are driven to learn and are also able to affect changes in attitudes when current and innovative teaching techniques are used.

The use of theoretical knowledge in practical applications is encouraged through **Practical Applications-ERs**. For effective teaching, ERs provide a concrete

representation of the theoretical knowledge that is covered in class. Students can effectively achieve academic goals when they put their theoretical knowledge into practical applications.

Making Learning pleasant and Pleasurable-ERs assist in fostering a pleasant and enjoyable learning environment in the classroom. Students enjoy learning about the novelty of new projects and gaining knowledge of new ideas through them. The importance of the students bringing their experiences into the classroom cannot be overstated. This is crucial for adult learners in particular.

Concept Formation-ERs aid students in developing and understanding concepts. Certain academic concepts can be challenging to master and comprehend in various subjects. In order to improve their comprehension and produce the appropriate academic results, it is crucial for the students to be able to obtain an effective understanding of ERs.

2.7 Types of Educational Resources

Teaching and learning resources come in a variety of forms and are categorised in various ways. The following is how they have been described (Teaching Learning Materials, n.d.).

ERs for audio and video: Schools and higher education institutions are the main settings where audio and video ERs are used. Human voice, telephone conversation, audio CDs, tapes, phonograph records, and radio broadcast are all examples of audio ERs. Video emergency response materials, on the other hand, are visual or verbal print, textbook and supplemental books, reference books, encyclopaedias, periodicals, newspapers, documents, clippings, other written materials, programme materials, or case studies.

Both non-projected two-dimensional and non-projected three-dimensional visual content are possible. Non-projected two-dimensional ERs are a type of illustration that helps clarify an idea. Blackboard writing, sketching charts, posters, maps, diagrams, graphs, photographs, images, pictures, cartoons, and comic strips are a few examples of these kinds of ERs. three-dimensional representations of genuine objects or phenomena that are not projected. Models, mock-ups, dioramas, globes, relief maps, specimens, puppets, and holograms are all part of it. Computers, television, and tape representations are also used in the execution of teaching-learning techniques. Both pre-schools and higher institutions employ the audio and visual ERs. The pupils can gain significant advantages by using computers and the internet.

Textbooks: Using textbooks, teachers can teach pupils the fundamentals of many ideas. These were created by authors specifically for students to aid in their learning. A textbook is any book that has been specifically written by the author(s) for the purpose of teaching a specific course. It is used in classrooms for all topics as an essential foundational teaching-learning tool. Textbooks are used to educate all courses in pre-schools, elementary schools, secondary schools, and senior secondary schools. For all courses, including physics, social science, maths, Hindi, English, and so forth, textbooks are required. Students must bring their textbooks to school in order to participate in class. These also include exercises that students must do at the conclusion of each lesson plan in order to fully comprehend the lesson plans. In order to effectively convey knowledge to the pupils, the teachers typically study the lesson plans contained within the textbooks. In particular, this applies to science, social science, English, and Hindi. The kids are taught a variety of mathematical ideas through writing.

Maps: Maps are frequently used to navigate to new locations. In order to navigate the city, a lot of people utilise Google Maps. Maps are reduced versions of the earth's surface that are drawn on paper. Every map is thought of as the earth's surface represented symbolically, hence it offers information in a distilled form. In every field, maps are regarded as helpful tools. Learning about geography, history, and economics is crucial, especially for social science. At the elementary school level, map details are kept basic to help students discover locations, identify various physical elements, and understand directions.

Physical maps, political maps, economic maps, social maps, and historical maps are the general categories into which maps fall. Climate, soil, forest cover, resource availability, and rainfall are all depicted on physical maps. Political maps depict how various nations and regions are divided politically. Crop rotation, land use, and transportation networks are depicted on economic maps. Social maps, which contain the literacy rate, languages, and tribes, depict the distribution of the population across the nation. Historical maps display empire boundaries, transport routes, battlegrounds, treaty sites, and other information. Students are taught how to interpret maps by their teacher. Latitudes, longitudes, diverse geographical features, land reforms, water reforms, human factors, resources, and other topics are among the many things that students learn about.

Charts: A diagrammatic representation of a system, process, or past order of an event is a chart. It is a visual depiction that serves as a summary, illustration, point of comparison and contrast, and means of coherently communicating the subject matter. In order to help pupils efficiently understand the topics, charts are employed in every subject. The pupils can efficiently learn the ideas with the use of charts (Teaching Learning Materials, n.d.).

There are numerous types of charts that are utilised. The ones that display the steps in processes are called process charts. These flowcharts include the steps that are applied to any method or lifecycle. An organisational chart is a diagram that is used to show how the various parts of an organisation work together. The chart used to depict the occurrence of events in chronological order is called a time chart. Empires in politics and human evolution can both be used in a time chart.

A tabular chart is one that displays data in a format that makes comparison and comprehension simple. A tree chart depicts growth and development from a single source, much like a tree's branches. The chart known as a stream chart is one in which several branches combine to form a single stream. The tree chart's inverse is this. Sequence charts, often known as flip charts, are a group of charts similar to flip charts that are used to display numerous events or series of events that occur one after the other.

Posters: A poster is a symbolic depiction of a single notion, viewpoint, or idea. As the poster's main message is typically written in capital letters, they are appealing and catchy. The posters are created with the intention of educating students about a crucial idea. Teachers typically hand out posters about topics like rural health when they are needed to teach students about specific themes. Typically, posters will also include illustrations of images and symbols. The caption refers to the text that is used to accompany a crucial visual.

The caption communicates the crucial point and draws the students' attention to the image, supporting the message that has to be converged. When creating posters, people must be sure to consider a number of important factors. These include resourcefulness, ingenuity, and innovation. Additionally, it is crucial to make sure that

posters are vivid because adding eye-catching colours helps people pay attention. Therefore, posters should be created in a stunning and appealing manner when teachers utilise them to communicate knowledge and information to the pupils.

Models: Model is the recognisable representation of an abstract or real item (such as the eyes). A model typically resembles the actual object in all ways except for size. An object's size can be increased or decreased. The object is simplified to only display the necessary components when the size is shrunk. The earth is modelled on a globe, for instance. To highlight the core of the planet, it has been simplified. On the other hand, the model shows the object's details when its size is increased. For instance, the model of the eye has been expanded to make it easier to notice all the features. The advantages of models include their usage in simplifying complex objects, shrinking enormous objects to comfortably viewable sizes, illuminating an object or system's internal structure, and assisting students in comprehending challenging elements of the model. Teachers can ensure that the pupils have a sufficient comprehension of the subject by using models. They can grasp and see numerous elements thanks to models.

There are two different kinds of models: working models and stationary models. Models that have no movement and all of its components are stationary are referred to as stationary or non-working models (Teaching Learning Materials, n.d.). It is more user-friendly and a widely used teaching-learning resource. In contrast, a working model is one in which all of the components move to demonstrate how the system's internal processes work. The students find them to be intriguing. Depending on the topics and concepts, extensive use of working models is also used (Teaching Learning Materials, n.d.).

The use of an overhead projector (OHP) allows for the projection of visual contents on a screen (Teaching Learning Materials, n.d.). It is a straightforward projector that is easy to use and is frequently used by teachers in schools, colleges, and universities. It is superior than using chalkboards because it allows teachers to simultaneously discuss and demonstrate graphics (Teaching Learning Materials, n.d.). The usage of OHP by instructors allows them to monitor whether or not the students are also learning the concepts. OHP can be used to repeatedly show graphics and transparencies, which also helps to save time. The OHP is portable and can be moved from one room to another. To accomplish the goals of teaching and learning, transparency development and design are required (Teaching Learning Materials, n.d.).

OHP transparencies come in two different varieties. The efficient execution of the teaching-learning processes is typically the main goal of the design and development of the transparencies. OHP transparencies come in two different varieties: single transparency and continuous roll. The form of single transparency is used when ten single transparencies are required. Utilising continuous roll is another kind of OHP. Continuous roll is used; as classroom instruction continues, the teachers unroll it and display it on the OHP platform (Teaching Learning Materials, n.d.).

Presentation Slides: Because they combine the benefits of OHP slides with the adaptability of the computer, slides are effective (Teaching Learning Materials, n.d.). Power Point slides allow for the insertion of images, animations, and text, making ERs valuable and effective. Both small and large audiences can use these (Teaching Learning Materials, n.d.). Power Point slides can be recycled and applied to both individual and group study as well as classroom instruction. There are some factors

that need to be taken into account when using Power Point slides. These include suitability, accuracy, legibility, and understandability

Appropriateness is a reference to how straightforward a slide presentation is. The content should be appropriate for the learner's level. Each presentation needs to be contextualised, and images are preferable than tables for visual appeal (Teaching Learning Materials, n.d.). The accuracy of the content is what is meant by accuracy. Word spelling, as well as the accuracy of the graphic data, must be validated. Legibility is the requirement that the text on the slide be readable. It is crucial to remember to use the appropriate font size. The learners should be able to understand the slides. It is crucial to utilise straightforward language when creating slides so that the learners can understand them effectively (Teaching Learning Materials, n.d.).

Computers: Computers are thought to be extremely important for effectively learning academic subjects. In particular, instructors and students can raise knowledge of numerous concepts, opinions, and viewpoints through the usage of the internet. In order to expand their expertise, instructors use computers and the internet when creating lesson plans. They can properly prepare themselves to respond to the kids' questions and to effectively convey understanding to them thanks to computers and the internet (Teaching Learning Materials, n.d.).

Students have benefited from the computers as well, particularly in completing assignments and projects, comprehending academic topics, and effectively preparing for exams and competitions. Computer use facilitates both group and individualised learning. This results in a wider range of circumstances and approaches. To record, examine, and establish efficient communication terms with the students, a computer

can be employed. Additionally, it has considerable data storage and manipulation capabilities (Chapter 4.8, n.d.).

Computer Assisted Learning (CAL) or Computer Mediated Learning (CML) are terms used to describe learning procedures that involve computers (Busljeta, (2013). With the students, the computer converses and interacts. Pre-designed programme refers to the interaction that occurs between the computers and the learners (Busljeta, (2013). The new concepts are introduced to the students in a predetermined order. It is referred to as interactive learning since the computer engages the students at every stage. The people enjoy using computers and are happy when they are doing so. Teachers and students can accomplish academic goals thanks in large part to computers and the internet (Busljeta, 2013).

Additional Reading Materials: The term "other reading materials" refers to articles, documents, reports, assignments, projects, newspapers, periodicals, and books that are used to improve conceptual comprehension and raise awareness among people about diverse topics. It is a fundamental part of the job of educators to read to learn about other topics, such as the economics, politics, rural development, sports, current events, and so forth. Students are even encouraged to keep themselves informed about all these elements at schools and higher education institutions (Busljeta, (2013).

Students are expected to participate in research and writing activities in colleges and universities, particularly when pursuing master's and doctoral programmes. They must produce articles and research papers in addition to working on their theses. They must engage in reading in order to achieve this. The people also favour leisure reading, which is reading for pleasure in magazines or newspapers. Reading is viewed as a

pleasure, and it is important for people to indulge in reading frequently to stay informed (Busljeta, (2013).

2.8 Strategies in Managing the Impact of Covid-19 Pandemic on Teaching and Learning

Technology-mediated teaching and learning methods can be used to manage the impact of the COVID-19 pandemic on teaching and learning (Gover, Loukkola, & Peterbauer, 2019). These methods are discussed next:

2.8.1 Flexible learning

According to Gover, Loukkola and Peterbauer (2019), flexible learning is an educational strategy that employs a variety of student-centered teaching and learning methodologies, resources, and flexible administrative practices to meet the demands of various student population categories. Many governments made steps to promote flexible learning during the COVID-19 pandemic to lessen the effects of academic disruption. The campaign "Disrupted classes, Undisrupted Learning" was developed in China. Over 270 million students nationwide were intended to benefit from flexible online learning opportunities from the comfort of their homes as indicated by Huang et al. (2020).

Similar to this, the Australian government unveiled The Flexible Learning Toolboxes Project as a new endeavour. By making a selection of learning resources designed for web-based delivery accessible in a way that facilitates the customization and reuse of existing infrastructure in the nation's vocational education and training system, the goal was to encourage the implementation of flexible learning modes (UNESCO, 2020).

2.8.2 Remote teaching

Remote learning, which takes place outside of the normal classroom, is frequently aided through online learning management systems, virtual classrooms, and video conferencing software. In most cases, physical distance and occasionally time separate teachers from students (Pather et al., 2020). The ease with which instructors were able to switch from their customary in-person to remote instruction during the COVID-19 pandemic was examined in a study by Trust and Whalen (2020). However, most educators appeared to be learning about online and remote teaching while teaching remotely as a result of the school closure, according to Trust and Whalen's study, which demonstrates that teachers who used technology frequently in their practise had a much easier transition to remote teaching (Trust & Whalen, 2020). Geiger and Dawson (2020) describe how K-12 public schools in Florida, USA, made the switch to remote instruction during the COVID-19 epidemic in a different study. One crucial aspect is that years of leadership and professional development focused on remote teaching, blended learning, and similar concepts laid the foundation for their capacity to plan and carry out the change successfully (Geiger & Dawson, 2020). Similar to this, a prior study carried out in Australia to examine the experiences of students enrolled in distance education brought to light the following problems with distance education: a feeling of isolation, the attitudes and expertise of the teaching staff, and students' familiarity with and use of learning technologies (Nishiura, 2020).

2.8.3 Technology-enhanced learning

The use of technology to enhance teaching and learning is referred to as technology-enhanced learning (TEL). Any technology can improve the learning process. Both analogue and digital technology can be referred to by the word (Cullen, 2020). As part of the "School's Out, But Class's On" campaign in China, a national technology-

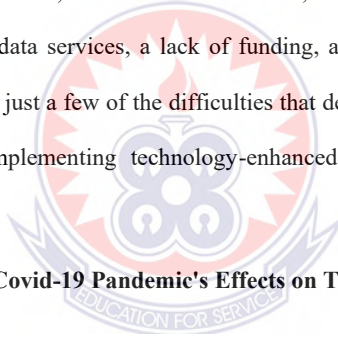
enhanced learning platform was created to maintain continuity in education during COVID-19. Nearly 270 million schools have used the platform to undertake online lessons in less than two months of operation (Zhou, Li, Wu, & Zhou, 2020).

The effort is currently viewed as an experiment in a brand-new form of education that makes use of contemporary technologies, rather than just a crisis response strategy for the pandemic (Zhou et al., 2020). Technology-enhanced learning, according to Russel (2021), moved students, teachers, and administrators from physical spaces that provided them with much-needed social interactions to being seated behind a screen for hours at a time. This was done to speed up the teaching and learning process during the pandemic. Technology-enhanced learning was created to guarantee the continuity of healthcare education in the United Kingdom during the COVID-19 pandemic, according to Wyres and Taylor (2020). Technology-enhanced learning systems included simulation features such as imitation wards, patient houses, and intensive care environs as well as 360° field-of-view cameras because some essential resources were no longer accessible to students.

The transition to technology-enhanced learning, which is being adopted by many institutions around the globe, has been noted to be challenging in developing nations (Adeoye et al., 2020). The academic institutions in Ghana that already had digital learning platforms set up and the means to run them were primarily responsible for the slower-moving move to online platforms. According to Upoalkpajor and Upoalkpajor (2020), Ghana will need to adopt a variety of learning delivery modalities, including those that are more readily available to the poor, such as television, radio, and SMS-based mobile platforms. The majority of children left behind may be reached with tailored instructions using radios and phones since more than 80% of adults have access to these devices. It is still up for debate whether technology

enhanced learning is successful. In a study on the effects of the Covid-19 pandemic on teaching and learning, Pokhrel and Chhetri (2021) examined how students retained information and how remote learning affected children's social and emotional development. They came to the conclusion that the following three factors are necessary for online learning to be effective: having regular access to computers and the internet for students' educators getting the online course administration training they need platforms that offer personalised education to accommodate each student's learning path.

For the majority of Ghanaian schools, these three factors presented numerous difficulties. The lack of institutional readiness, a lack of infrastructure, an unstable power supply, the high cost of Internet data services, a lack of funding, and issues with policies and the education sector are just a few of the difficulties that developing nations like Ghana may face when implementing technology-enhanced learning (Adeoye, Adanikin, & Adanikin, 2020).



2.9 Headteachers' Management of the Covid-19 Pandemic's Effects on Teaching and Learning

A key factor in determining educational leadership styles is gender. According to gender differences, Khalifa, Khalil, Marsh, and Halloran (2019) point out the necessity to investigate the function of leadership in schools as a tool to raise educational standards and quality. Additionally, Hall and Shah (2018) emphasize the significance of employing the gender variable while looking into school headship in the manners described next: A gender perspective opens up new avenues for investigating the lives of men and women who teach, administer, and take leadership roles in the educational system. We have both come to the conclusion that educational leadership is deeply based in professional identity as headship researchers. Another

important aspect of that identity is gender. Future headship research that ignores this and the gendered structure of schools and institutions is likely to fall short (Nasra & Arar, 2019).

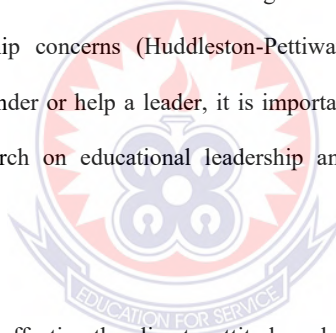
Despite the fact that women are overwhelmingly underrepresented in the teaching profession globally, the educational sector exhibits an imbalance when it comes to the employment of females as educational leaders (Carvalho & Diogo, 2018). This is an important phenomenon related to the discussion of gender and leadership styles in the classroom. According to Fuller and Lain (2020), there are currently far fewer women serving as secondary school heads than there are men. According to Sell and Minot (2018), there is a particularly large disparity between the proportion of female to male administrators in schools in developing nations.

According to Mukhopadhyay and Seymour (2021), the fundamentally male-dominated cultures of various nations, when combined with governmental traditions, colonial legacies, and religious norms, tend to restrict the opportunities and options open to women. They contend that patriarchal societies, which view the male as the family's 'natural head' and as such, the person most responsible for making decisions for the entire household, continue to place an appallingly low value on a woman's ability to make or even influence important decisions regarding herself and the household (Mauchi, Lekhanya & Dorasamy, 2020).

Therefore, it is not surprising that the proportion of female leaders declines significantly in many countries of the world when it comes to obtaining leadership positions in the educational sector, where a leader is expected to instruct, direct, and lead both males and females (Whitehead & O'Connor, 2022). However, it is

extremely debatable whether or not women have been suppressed, marginalised, or just undertrained to undertake the function of a school head.

Based on women's socialised traits, a number of theorists have emphasised the necessity of a female leader for the effective management of educational institutions (Hays, Crockett, & Michel, 2021). Such ideas emphasise the value of researching "gender identity" in the development of school leadership styles. According to Northouse (2016), it is crucial to "dispel myths about gender" in this regard and to adopt a more "androgynous" perspective (p. 343). This supports the idea that the equality in selecting the proper individual with the appropriate abilities, values, and attributes to ensure the efficacy and growth of an educational organisation is the actual concern in educational leadership concerns (Huddleston-Pettway, 2022). Additionally, because the setting may hinder or help a leader, it is important to take into account it when conducting research on educational leadership and gender (Hallinger & Chen, 2015).



2.9 Headteachers Leadership skills

Educational leaders play a pivotal role in affecting the climate, attitude and reputation of their schools. They are the cornerstone on which learning communities' function and grow. With successful school leadership, schools become effective incubators of learning, places where students are not only educated but challenged, nurtured and encouraged.

2.10 Gender and Educational Leadership

According to theorists like Ensari and Riggio (2020), leadership can be significantly influenced by both culture and gender. The 'combined' effects of these factors have, however, barely been studied. As a result, study on how gender roles are

conceptualised in various contexts is necessary to construct an overarching theory about gender and leadership styles in educational institutions. N2020 (Kirker). It has been noted that the body of knowledge on educational leadership and management, particularly in the Asian setting, is still in its infancy (Hallinger & Chen, 2015). Furthermore, it is asserted that just 6% of research carried out in Asia is done in the South Asian region (Hallinger & Chen, 2015). Therefore, there is an urgent need to carry out research that examine how culture and gender interact with educational leadership within the setting. By focusing on the interaction of educational leadership styles and the gender of the head teacher within the context of Ghana, a developing country with a highly charged social and political environment, this study seeks to partially fill this gap in the literature on educational leadership. According to Zarrinabadi et al. (2022), gender role perceptions are profoundly ingrained in people's thinking, and education plays a crucial part in bringing about a shift. Therefore, gender is an important component in this cultural setting, and it is critical to determine whether the gender of the head teacher has a significant impact on how they lead their schools (Munir & Aboidullah, 2018).

There is a dearth of research on gender and educational leadership in Ghana. Particularly, there is a lack of study on how male and female headteachers navigate gender norms in educational leadership in a predominately patriarchal culture. Thus, the purpose of this study is to determine whether gender is a key predictor in how public basic school headteachers in Ghana perceive their leadership styles. Additionally, it attempts to research how gender influences these perceptions in the Ghanaian context by examining how headteachers perceive their contextual surroundings in order to determine their needs, resources, opportunities, and difficulties.

Furthermore, Vogel, Alhudithi and Alsliman (2021) found that female leaders were more likely than male leaders to exhibit the following leadership traits: relational leadership, the pursuit of social justice via leadership, spiritual leadership, leadership for learning, and balanced leadership. They discovered that women often prioritise forming relationships with people over assuming a hierarchical position when leading. This includes taking a collaborative approach to decision-making rather than an authoritarian one. Building dependable relationships will support this effort, according to female leaders who see authority as more often than not a shared duty (Buchanan, Mills, & Mooney, 2020).

Female leaders are more likely to identify their career objectives as "wanting to change the status quo" (Yang, Chawla, and Uzzi, 2019), even though male leaders also take on leadership roles for sincere reasons. They state that their work in education is intrinsically committed to social justice and serves as a catalyst for doing good deeds (Ezzani et al., 2021).

In comparison to male leaders, female leaders spend more time in schools, claim Yang, Chawla, and Uzzi (2019). They acknowledge that their morality and spirituality serve as a compass for their leadership behaviours, particularly when it comes to improving the lives of children. Even though it seems like a natural part of leadership, this idea of "caring" so intensely isn't usually seen as such. Female traits, such as those associated with "caring," which are frequently seen as appropriate and natural for women in business and the workplace but are typically found to be less than effective in a female leader, restrict and undermine female leaders and their leadership styles, according to Bogerson (2018, p. 11). Ampah-Mensah and Brion (2021). One essential trait that appears to be particular to female leaders is including leadership for learning. Female leaders are not only more proactive when it comes to implementing

new educational initiatives, but they also support and promote experimentation during the implementation stage. Although they remain committed to a collaborative strategy that supports teacher growth and development, their major priority is the academic success of their students.

Although it may appear that way at first glance, the problem is not necessarily that women avoid taking on leadership roles; rather, they frequently do it later in their professions due to obligations related to establishing families and homes (Phipps & Prieto, 2021).

Male teachers are 12% more likely to quit their jobs if the principal is a woman than if the principal is a man, according to a 2018 study from the University of Virginia and Northwestern University. The results of this study also showed that the same male teachers who changed schools were more likely to work at institutions with male principals as opposed to female ones (Husain et al., 2018). The social prejudice that men are easier to work for than women is supported by research that makes it understandable why female educational leaders face such challenges in becoming effective leaders in their institutions.

Considering both personal and professional traits, societal stereotypes have painted images of girls in two different lights. In some cases, society views women as the maternal gender because they are maternal, nurturing, and caring (Koenig, 2018). Women's leadership qualities are also presumptively presumed. Some people automatically attribute traits of submissiveness, passivity, and incapacity to female leaders (Smith-Rasshan, 2020). On the other hand, female leaders are frequently perceived as being obstinate, aggressive, unjust, and cold (Stigliano, 2021). The majority of people favour female leadership, and women are held to higher standards

than men Zheng, Kark and Meister (2018). Female leaders must continually achieve above expectations to show their genuine abilities because their leadership techniques are frequently questioned by coworkers, subordinates, and superiors (Davies, Potter & Grey, 2019).

2.10 Theoretical Framework

This study was underpinned by the Contingency-Based Leadership theory

2.11 Contingency-based leadership theory

According to earlier studies, there are a variety of leadership styles, including authoritative, democratic, situational, transactional, and transformational (Nahavandi, 2016; Munyanyiwa & Nelson-Porter, 2015). Different leadership philosophies can be applied in specific situations to satisfy the demands of the scenario, according to situational leadership (Oberer & Erkollar, 2018). According to the contingency-based leadership theory, an effective leadership style is chosen based on particular circumstances (Nahavandi, 2016).

Brownlee (2020) argued that new leadership traits including adaptation, flexibility, empathy, and candour must be embraced by leaders if they are to manage organisations during and after the COVID-19 crisis. The researcher hypothesised that the COVID-19 crisis would have caused the headteachers of public basic schools in the Akuapem-North Municipality, Eastern Region, Ghana, to modify their leadership style in order to adapt to the change and steer the team (teachers) forward in a sustainable way. This hypothesis was based on situational leadership and contingency-based leadership theory.

In circumstances where it is not possible for the team members to work close by or when they are spread out geographically, virtual leadership is very helpful. Since workers were advised to work from home during the COVID-19 crisis because of societal constraints, virtual leadership is extremely suitable in this circumstance.



CHAPTER THREE

METHODOLOGY

3.0 Introduction

The study's research methodology is covered in this chapter. The research paradigm, research approach, research design, population of the study, sample size and sampling procedures, data collection instruments, and the validity and reliability of the questionnaire are all covered in this chapter. Additionally, it covers trustworthiness of the interviews, data collection procedures, data analysis procedures and ethical considerations.

3.21 Research Paradigm

A pragmatist paradigm was used in the study. Each researcher has a set of values or a worldview that directs the research questions and methods used in their studies. A research paradigm is the name given to this set of assumptions. Instead of committing to a particular philosophical framework, a pragmatic paradigm focuses on finding solutions to issues and obtaining information using all means available to comprehend the issue (Creswell & Creswell, 2018). Instead of attempting to identify an objective truth, Chambers (2018) described pragmatic research as a method of rationally substantiating knowledge; rather, it was considered as a discussion of the meaning of things within a situational reality.

In this study, the researcher sought to comprehend how the COVID-19 pandemic affected educational administration in public elementary schools in the Akuapem North Municipality in Ghana's Eastern region. To enrich the research with more data from real-life scenarios, the views of the headteachers were sought after. This paradigm was also accepted due to its emphasis on the most effective ways to gather

data rather than a generalised set of assumptions about reality. This supports the claim made by Hall (2020) that pragmatists tend to concentrate on applied or action research using a variety of methodologies in a natural setting. The COVID-19 pandemic's impact on educational leadership in public basic schools in the Akuapem North Municipality, Eastern region of Ghana, was the issue under investigation for this study. A qualitative technique is well suited to the focus on studying headteachers' perspectives, while the use of quantitative results enabled data triangulation. As a result, this study addressed the research objectives using a range of methodologies and presented research findings to solve the issue.

The study's interpretive methodology also gave the headteachers' perspectives a chance to be heard. The audio recordings of the interviews improved and expanded the qualitative data. A qualitative technique was used in this study's aspect to define the impact of the COVID-19 pandemic on educational management in public basic schools in the Akuapem North Municipality, Eastern Region, Ghana. This necessitated the utilisation of a naturalistic atmosphere and a concentration on the voices of the headteachers.

Additionally, the study employed the pragmatic research paradigm, which pulled data from both quantitative and qualitative perspectives, to help analyse and explain the outcomes of the study from one source through another (Creswell & Creswell, 2018). Once more, this research's practical application was to help educational administrators create leadership training components that would improve the methods used by basic school principals in educational administration. A pragmatic paradigm was also used, which improved the triangulation of the data. As a result, the Akuapem North Municipality in the Eastern area of Ghana was able to create the most thorough

information possible regarding the impact of the COVID-19 epidemic management in public basic schools.

3.2 Research Approach

Due to the type of data needed for the investigation, which determined the methodological approach, the study used a mixed methods approach. Consequently, both qualitative and quantitative research techniques were applied. The adoption of a pragmatic paradigm in this study was justified by the fact that research questions 1 and 3 could be best answered using qualitative data, whilst research questions 2 and 4 could be addressed using a quantitative approach.

A single method could not totally yield reliable results when considering the nature of the research questions of the study, thus the use of a mixed methods approach enabled the researcher to triangulate to facilitate the credibility and reliability of the results. For instance, the qualitative component of the study allowed for the exploration of the headteachers' experiences and emotions, enabling a comprehension of their life that was not possible through quantitative studies or other methods of data collection. This is consistent with Bakarada and Koronios' (2018) proposal that in qualitative research, the participant is expected to provide precise information about the characteristics of the particular instance under examination rather than broad information.

Once more, the adoption of a mixed-methods approach gave researchers a comprehensive understanding of the topic at hand and made it easier for them to communicate with research subjects in English, opening up new perspectives on the issues. As a result, the researcher was better able to assess the impact of the COVID-19 pandemic on educational leadership in public basic schools in the Akuapem North

Municipality, Eastern region, Ghana. It also enabled the researcher to investigate the research topics from many angles.

Qualitative inquiry aids in bringing forth their experiences to comprehend their predicament when researching subjects that have not received much attention. According to Kelly and Cordeiro (2020), who endorsed the use of the qualitative approach for examining a grey region, qualitative research fosters contextual discourse about the phenomenon under study between researchers and respondents. This supports the thesis made by Cuthbertson, Robb, and Blair (2020) that it is predicated on the conviction that participant individuals socially construct social phenomena. In order to obtain detailed information from the various responders, numerous methods are combined.

Additionally, employing multiple methods in a single inquiry might be extremely beneficial, even though the time required will certainly increase (Creswell & Creswell, 2018). Additionally, the use of mixed approaches improved the validity and reliability of the findings by allowing data collected using various methodologies to be cross-checked. This corroborates Turulja and Bajgoric's (2018) claim that combining two approaches strengthens the validity of the researcher's findings if it can be demonstrated that they give mutual confirmation. In addition, Hayashi Jr, Abib, and Hoppen (2019) suggested that whereas qualitative research is viewed through the eyes of the individuals being investigated, quantitative research is connected with the researcher's perspective. This indicates that combining two approaches made it easier to see the study from both the researcher's and the respondents' perspectives.

Triangulation, which is one of the justifications for the mixed methods approach in this study, is also backed by Barnes's (2019) publications, which claim that triangulation may be accomplished in social research by utilising several techniques, sources, investigators, and theories to address the issues. The mix of qualitative and quantitative methodologies in the study had a solid foundation, therefore focusing solely on one method could result in inaccurate or missing data.

On the other side, utilising mixed methods has drawn criticism. Bryman and Bell (2015) opposed integrating two methods in a study, arguing that research methodologies entail an epistemological commitment that needs to be respected. Again, according to Bryman (2016), the various epistemologies and ontologies underlying the two study approaches make it challenging to merge the two methods. Despite the criticism, academics are increasingly turning to the mixed methods approach for social analysis (Bryman & Bell, 2015). Finally, it must be recognised that, above all, combining two into a single study of social phenomena was meant to give a full description of the problem and also offered substantial benefits, as indicated in the researcher's arguments for employing a combined methodological approach.

3.3 Research Design

According to Ghauri, Grnhaug, and Strange (2020), the research design refers to the overall approach used to combine the many study components coherently and rationally, hence ensuring that the research questions were effectively discussed. The plan for gathering, measuring, and analysing data is known as research design (Creswell & Creswell, 2018; Reaves, 2019; Ghauri, Grnhaug, & Strange, 2020). According to Creswell and Creswell (2018), the study employed a sequential

explanatory mixed methods design, in which results from the quantitative source were complemented and explained by information from the qualitative source.

To address the research questions, the researcher employed the sequential explanatory design (SED). Bakla (2018) claims that the sequential explanatory design is used to gather and analyse quantitative data, then to gather and analyse qualitative data, and to end with a synthesis of the findings. The design is depicted in Figure 3.1.

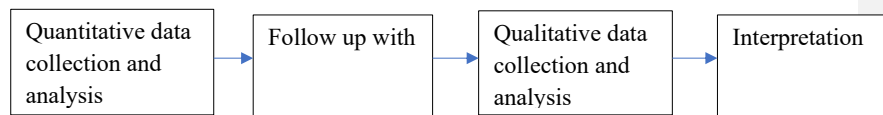


Figure 3.1: Sequential explanatory design

Source: Researcher's Construct, (2023)

It is possible to imagine two-phase mixed approaches in Figure 3.1, with the ultimate goal of utilising qualitative data to support or add to early quantitative findings (Creswell & Creswell, 2018). As a result, the researcher initially gathered and examined quantitative data before gathering and examining qualitative data. After gathering and analysing both quantitative and qualitative data, the interpretation was completed. This implies that the interview questions used in this study to collect qualitative data were created in a way that they corresponded to the conclusions drawn from the quantitative data. This design put a lot of attention on the quantitative facts.

Because the study needed to employ qualitative data to support conclusions from the quantitative data (Creswell & Creswell, 2018), this approach was used. The reliability and dependability of the data were also strengthened by using several sources or techniques of data collection because each source's advantages can sometimes outweigh its disadvantages (Hendren, Luo, & Pandey, 2018).

3.4 Population of the Study

A study's population is a collection of people chosen based on inclusion and exclusion criteria related to the variables being examined, according to Cash et al. (2022). A study's population can also refer to the complete group of people, including those who did not engage in the study, to whom researchers seek to generalise the results of the study (Creswell & Creswell, 2018). According to Dudovskiy (2016), a population is a collection of people who the researcher is interested in and who have one or more traits. It provides the benefit of avoiding the time and costs associated with examining the entire population (Dudovskiy, 2016). A study's population, according to Bhardwaj (2019), is a collection of people chosen based on inclusion and exclusion standards related to the variables under investigation.

All basic school headteachers in the Municipality of Akuapem-North made up the study's population. The population for the study was 87 headteachers at public basic schools in the Akuapem-North Municipality (ANM), Eastern region (GES, 2023). In this group, there were 40 women and 47 men (Akuapem-North Municipality Education Directorate, 2023).

3.5 Sample and Sampling Techniques

3.5.1 Sample

A sample is a selection from a broader population of individuals, things, or things used for measurement (Bull et al., 2021). The individuals who took part in this study make up the sample.

3.5.2 Sample for quantitative approach

A sample of 87 headteachers was selected for the study. All 87 headteachers were used for data collection. This was because the population was homogeneous in nature Alvi,(2016) stated that a population is said to be homogenous when its every element is similar to each other in all

3.5.3 Sample for qualitative approach

Also, the sample for the qualitative phase was based on Creswell and Creswell's (2018) criteria for selecting participants for interviews. According to Creswell and Creswell (2018), five to twenty (5-25) respondents can be used for interviews. For this reason, 10 headteachers were sampled based on proximity, gender and experience for the interviews. This sample was obtained through data saturation. Data saturation was attained when the researcher realised that during data collection no new issues were obtained from the respondents. At that point, the researcher ended the interviews.

3.5.4 Sampling technique for quantitative approach

The census sampling technique was used to select headteachers for the quantitative phase of the study. This is a sampling technique that gives opportunity to the researcher to select all the units or members of the population (Creswell, & Creswell 2018). This sampling technique was adopted because it was quite reliable and accurate (Bryman, 2016). Further, it helped the researcher to rule out the possibility of being biased (Creswell & Creswell, 2018). Again, in using the census sampling technique, the researcher was able to do an intensive study since data were obtained from every unit of the population (Creswell & Creswell, 2018). Moreover, it enabled the satisfaction to study more than one aspect of all items of the population (Creswell & Creswell, 2018).

3.5.5 Sampling technique for qualitative approach

A maximum variation type of purposive sampling technique was adopted to select respondents for the qualitative aspect of the study. The maximum variation type of purposive sampling is a process where units of analysis are intentionally chosen so that instruments for the study can be administered (Staller, 2021). The sample is selected intentionally because they typically show most of the characteristics of relevance to the study. This type of purposive sampling technique is where the researcher selects participants to provide a diverse range of cases relevant to a particular phenomenon or event (Creswell & Creswell, 2018). They further explained that the purpose of this maximum variation type of purposive sampling technique is to provide as much insight as possible into the event or phenomenon under investigation.

In this study, the maximum variation type of purposive sampling technique was employed in the selection of headteachers who had five years and beyond headship experience before the COVID-19 pandemic, gender and location. This was because the researcher conceptualised that these headteachers had the needed information with regards to the topic under investigation; hence, would be in a better position to give information that helped answer the research questions. Thus, the researcher believed that these headteachers had vast knowledge and experience in the area of study. This type of purposive sampling technique was also considered because the researcher aims at interviewing as many different headteachers as possible to construct a robust view of the issue from these headteachers' perspectives (Creswell & Creswell, 2018).

3.5.6 Description of research sites

The research was carried out in seven circuits in the Akuapem North Municipality, namely circuit 1, circuit 2 to circuit 7 (Table 3.1) Each circuit comprises several schools. Some of the schools are only primary, others Junior High, and others Basic.

In all, there are eighty-seven schools with 87 headteachers. Most of the circuits have the same socio-economic status and not all are accessible. Circuits 4 to 7 have some of the schools in a bit remote area. Circuit four (4) is a market centre.

Table 3.1 Description of research sites

Number	Names of Circuit	Number of schools	Number of headteachers
1	Akropong	10	10
2	Larteh	15	15
3	Mampong	19	19
4	Adawso	13	13
5	Tinkong	13	13
6	Mangoase	9	9
7	Okorase	8	8

3.6 Data Collection Instruments

3.6.1 Questionnaire

A self-developed questionnaire was used for data collection. It had three sections: Sections A, B, and C. Section A was made up of 3 close-ended items which focused on demographic information of headteachers such as Gender, working experiences, and number of years in the current school. Section B was made up of items that focused on educational resources available to headteachers in managing the impact of the COVID-19 pandemic on teaching and learning in public basic schools in the Akuapem North Municipality. Data from this section was used to answer research question two.

Further, section C was used to solicit data on whether there is a gender difference in the strategies adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality. Data from this section was used to answer research question four. A 5-point Likert

Scale format was used for the questionnaire. They were weighed as: Strongly Disagree (SD)=1, Disagree (D)=2, Neither Disagree nor Agree (ND/A) =3, Agree (A)=4, and Strongly Agree (SA)=5. However, negative items used the reverse scoring such as Strongly Disagree (SD)=5, Disagree (D)=4, Neither Disagree nor Agree (ND/A) =3, Agree (A)=2, and Strongly Agree (SA)=1. The reverse scoring helped in increasing the reliability coefficient of the questionnaire.

3.6.2 Semi-structured interview guide

Semi-structured interview guide had one section (Section A). This section had open-ended items. These items were used to solicit information on how the COVID-19 pandemic affects teaching and learning in public basic schools in the Akuapem North Municipality and strategies adopted by headteachers in managing teaching and learning during COVID-19 pandemic in public basic schools in the Akuapem North Municipality to answer research questions one and three respectively. This instrument was adopted because the researcher wanted to collect qualitative, open-ended data. Also, the researcher wanted to explore headteachers' thoughts on the phenomenon under investigation. Again, through the use of this instrument, the feelings and beliefs of headteachers about the topic under investigation were explored. Moreover, using this instrument helped the researcher to dive deep into personal and sensitive areas of headteachers concerning the topic under investigation.

3.7 Validity and Reliability of the Questionnaire

3.7.1 Validity of the questionnaire

Validity refers to the extent to which the “research conclusions are authentic” (Amoah, 2018). It is a demonstration that a particular research instrument measures what it purports to measure (Amoah, 2018). When research measures what it is

intended to measure then it is valid. The validity measures taken in this study were based on these conceptions of the notion of validity. To validate my measurement instruments the validity of the questionnaire was established using face and content validity procedures. The face validity of the questionnaire was checked by giving the prepared questionnaire to the researcher's colleague students pursuing the same programme (Master of Philosophy, Educational Administration and Management at the University of Education, Winneba).

Also, the content validity of the questionnaire was confirmed by the research supervisor who examined the research questions alongside each item of the questionnaire to determine whether the questionnaire measures what they were supposed to have measured. Comments made by the college students and the research supervisor were affected before the questionnaire was administered to participants.

3.7.2 Reliability of the questionnaire

Reliability refers to the extent to which research findings can be replicated (Hallikainen & Laukkanen, 2021). Amoah (2018) is of the view that reliability is the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of the study can be reproduced under a similar methodology, then the research instrument is considered to be reliable. In other words, it is such that if a later researcher follows the same procedure as described by an earlier researcher and then conducts the same research all over again, the later researcher should arrive at similar findings and conclusions. Rudolph (2021) opined that the mere fact that several people have experienced the same occurrence does not make data more reliable, particularly in educational studies. Then, their view on reliability should be altered from whether

findings will be found again to whether the results are consistent with the data collected.

The pilot test was conducted to check the reliability of the questionnaire. Pilot studies are small-scale, preliminary studies that are aimed at investigating whether crucial components of a main study usually a randomised controlled trial (RCT) was feasible (Al-Ali et al., 2021). The pilot study was used to predict an appropriate sample size as well as to improve upon various aspects of the study design for the full-scale project. Afterward, the Cronbach alpha reliability coefficient value was checked. This was because it was a much more reliable way of checking the internal consistency of the instrument (McGrath, Palmgren & Liljedahl, 2019).

In pilot testing of the questionnaire, 30 headteachers at Okere District in the Eastern region of Ghana were selected. Headteachers used for the pilot testing of the questionnaire were not part of those from the main study. These headteachers were selected because the researcher believed they had similar characteristics as compared to those in the study area. After the pilot testing of the questionnaire, the Cronbach alpha reliability coefficient value was calculated and the results were presented in Table 3.2.

Table 3.2: Results on Cronbach alpha reliability coefficient value

Section	Number of Items	Cronbach Alpha Reliability
B	10	.85
C	8	.89

Source: Field data, (2022)

(Total Number of Headteachers=30)

In Table 3.2, the results indicated that items in sections B and C of the questionnaire had .85 and 8.9 Cronbach alpha reliability coefficient values respectively. This

suggests that the questionnaire was reliable. This is because according to Creswell and Creswell (2018), if a Cronbach alpha reliability coefficient value of 0.7 is obtained, then, the questionnaire is reliable.

3.8 Trustworthiness of the Study

The trustworthiness of the interviews was ensured using credibility, dependability, transferability, and confirmability as posited by (Cloutier, & Ravasi, 2021). For example, the researcher interacted with the subjects over a period of two weeks to develop an acquaintance with the headteachers. This was done through casual visits to the headteachers in their various schools and phone calls. This enabled the researcher to develop cordial relationships with the headteachers. In this way, the researcher was able to build trust between herself and the headteachers. This trust contributed positively to participants opening up for discussions of all relevant issues that were covered for the study. This helped in ensuring the credibility of the interviews. Further, a member check was conducted. Thus, audio recordings were played to participants for them to authenticate the information shared.

Also, to address the dependability issue for the study, the processes within the study were reported in detail, thereby enabling future researchers to repeat the work, if not necessarily to gain the same results. Additionally, because the report of the findings was done in detail, the researcher believed that other researchers can repeat part of the findings in their studies. This was how transferability was ensured in this study. Again, for confirmability's sake, the researcher took steps to help ensure as far as possible that the findings of the study were the result of the experiences and ideas of participants rather than the characteristics and preferences of the researcher. To this end, beliefs underpinning decisions made and methods adopted were acknowledged within the research report.

3.9 Data Collection Procedures

3.9.1 Quantitative data collection procedures

The researcher sought permission from the Municipal Director of education in the Akuapem North Municipality and School Improvement Support Officer [SISO] (gatekeepers) and headteachers (participants) using an introduction letter from the Head, Department of Educational Administration and Management, University of Education, Winneba. After securing permission at that level, preparations were made to administer the instruments on said dates, times, and venues. Respondents were met during the general meeting for all heads in the study area. Respondents were given explanations of the purpose of this study, aspects of confidentiality and anonymity, and the anticipated use of the results. Questionnaires were distributed to participants. They were given 35 minutes to respond to the questionnaires. Afterward 35 minutes, the questionnaires were retrieved. This helped in ensuring a 100% return rate.

3.9.2 Qualitative data collection procedures

Face-to-face approach and telephone calls were adopted for the interviews. This was done after analysis of the quantitative data. In conducting the interviews, procedures were taken to ensure that the settings for the interviews helped in promoting confidentiality by way of ensuring that the participants are not overheard. The English language was used for the interviews. The interviews were audio-taped after permission had been granted by the participants. This was to ensure a more accurate picture of the questions and answers. Also, it helped in improving the credibility of the interviews. In the same way, the recorded interviews helped the researcher to focus more on the participants' non-verbal utterances, attitudes, and body language instead of pausing to take notes. Further, important information (field notes) was written as a backup in case the recorder develops a fault.

3.10 Data Analysis Procedures

3.10.1 Quantitative data analysis

Data were analysed using descriptive statistics (frequencies and percentages, means and standard deviations), and inferential (Independent sample t-test and eta squared) statistics. Descriptive research is a quantitative research method that attempts to collect quantifiable information for statistical analysis of the population sample (Pandey & Pandey, 2021). Thus, frequency and percentages were used to analyse the demographic information of participants. Also, research question two was analysed using means and standard deviations. This is because this question collected ordinal data and aimed at ranking the educational resources available to headteachers in managing the impact of the COVID-19 pandemic on teaching and learning in public basic schools in the Akuapem North Municipality.

Further, research question four was first analysed using means and standard deviations. This was to find out whether there were differences in the means and standard deviations of the strategies adopted by headteachers in managing teaching and learning during the COVID-19 pandemic. Also, an independent sample t-test was conducted to find out whether the mean difference was statistically significant. The result revealed that there was a statistically significant difference between the means. For that matter, the eta-squared test was also conducted to ascertain the effect size statistics. This helped in determining the magnitude effect of the differences. Statistical Package for Social Sciences (SPSS) software version 26.0 was used to analyse the quantitative data. Results were presented in Tables in Chapter Four.

3.10.2 Qualitative data analysis

Data were analysed in themes. Research questions one and three were analysed using the interview data. The interview data were first transcribed by focusing on the key

elements in the narrative that highlighted the aims of this research. Personal and identifying details were left out which ensured anonymity of the participants. Additionally, direct quotes, grammatical nuances, idioms, and figures of speech deemed necessary were included in the transcription of the interview data (Nascimento & Steinbruch, 2019). This helped to create data that was as close to the recorded voice as possible. The audio-taped proceedings of the interviews were further transcribed and subjected to thematic analysis (Ejegi-Memeh et al., 2021).

According to Oduro, Akuta and Kuranchie, (2022), thematic analysis is an analytical strategy that requires the researcher to organise or prepare data, immerse him or himself in and transcribe the data, generate themes, code the data, and describe them. In this sense, the thematic analysis helped in revealing themes related to the research questions. Axial and open coding which is used to organise themes coherently was used to align similar ideas into their corresponding themes. This helped to cluster the emerging ideas into coherent units, and that allowed the emerging themes to stand out clearly.

3.11 Ethical Considerations

Ethical considerations for the study took the following procedures: Access, informed consent, confidentiality and anonymity.

3.11.1 Access

Access is the 'how' of researchers' and participants' mental processes, interaction, communication, and positioning that pertain to the research in question. Access is an ongoing and dynamic process that lasts as long as the research project (Riese, 2019). An introductory letter from the Head of the Department of Educational Administration and Management of the University of Education, Winneba was

obtained to enable approval from gatekeepers and participants. Thus, a copy of the introductory letter was sent to the gatekeepers and headteachers to seek approval for data collection. After permission was granted by the gatekeepers, dates, times, and venues were fixed for data collection.

3.11.2 Informed consent

Informed consent is one of the founding principles of research ethics. It intends that human participants can enter research freely (voluntarily) with full information about what it means for them to take part and that they give consent before they enter the research (Arifin, 2018).

To seek participants' informed consent, they were furnished with accurate and complete information on the purpose and procedures of the investigation so that they fully understood and in turn decided whether to participate in the study or not (De Villiers, Farooq & Molinari, 2021). Informed consent is crucial in research as it ensures individuals have an informed choice about whether to participate in a research study (Vivek, 2022). Thus, informed consent is a necessary prerequisite to any research in which human beings are involved as participants. In this study, the researcher spelled out the purpose, the intended use of the data, and its significance to the participants. Each of the participants willingly decided to take part in the study.

3.11.3 Confidentiality

Confidentiality refers to a condition in which the researcher knows the identity of a research subject, but takes steps to protect that identity from being discovered by others. According to Bryman (2016), confidentiality "indicates the handling of information in a confidential manner" (p. 67). In keeping with jealousy researcher protected all the pieces of information from the participants so that only the researcher

had access to them. The convention of confidentiality is upheld as a means to protect the privacy of all persons, to build trust and rapport with study participants, and to maintain ethical standards and integrity of the research process. Before the commencement of data collection, participants were assured that data would be kept confidential. In doing so, codes were assigned to the various questionnaires and were kept from the reach of other individuals.

3.11.4 Anonymity

Providing anonymity of data collected from research participants means that either the project does not collect identifying information of individual persons (e.g., name, address, email address, etc.), or the project cannot link individual responses with participants' identities (Bell & Waters, 2018). Research participants' well-being and interests were protected. Participants identified in the study were masked or blinded as far as possible (Denscombe, 2017). To ensure anonymity, the responses of respondents were presented in such a way that one could not "identify a given response with a given respondent" (Basabose, 2019). In this study, participants were encouraged not to write any identifiable information (such as the name of the school, participants' names, email addresses, house numbers, and contacts) on the questionnaire. Besides, codes (such as headteacher [HT] 1, 2, 3, and so on) were assigned to the verbatim transcription of data.

CHAPTER FOUR

FINDINGS AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter presents the findings and discussion of findings on influence of COVID-19 pandemic on management in public basic schools in the Akuapem North Municipality, Eastern region, Ghana. The presentation is in two sections: Section A and Section B. Section A deals with the response rate and demographic information of respondents. Also, Section B presents the results on the research questions, testing of hypothesis and discussion of the results.

Section A

This section deals with the response rate and demographic information of respondents.

4.1 Response Rate

As indicated in the methodology, 87 questionnaires were distributed to headteachers, while 10 headteachers were sampled from the 87 respondents for the interviews. This result is displayed in Table 4.1.

Table 4.1: Response rate

Response Rate	Headteachers 1	Headteachers 2
Sample population	87	10
Response	87	-
Percentage	100%	-
Data collection instrument	Questionnaire	Interview

Source: Fieldwork data, (2023).

Out of the 87 questionnaires distributed to headteachers, 87 were retrieved which gives a response rate of 100 percent as indicated in Table 4.1.

4.2 Demographic Information of Respondents

Items 1-3 in section A of the questionnaire were used to gather data on the demographic information of respondents. The first theme concentrated on the demographic analysis of the respondents where data on gender, working experience, and number of years in current school were gathered. Frequencies and percentages were used to analyse the data and Table 4.2 presents the results.

4.2.1 Gender

Table 4.2: Gender distribution of participants

Gender	Headteachers (n=87)	Percentage
Male	47	54%
Female	40	46%
Total	87	100

Source: Fieldwork data, (2023).

Table 4.2 illustrates the gender distribution of the participants. Out of 87 head teachers 47 representing 54% were males whereas 40 participants representing 46% were females. The result indicates that male and female headteachers were allowed to share their views on the topic under investigation.

4.2.2 Working experience

Headteachers' working experience was assessed. The result is shown in Table 4.3

Table 4.3: Working experience

Working Experience	Frequency	Percentage
1-3 years	3	3.5%
4-6 years	8	9.3%
7-9 years	24	27.9%
10 years and above	52	59.3%
Total	87	100%

Source: Fieldwork data, (2023).

The result from table 4.3 further reveals that 52(59.3%) of the headteachers have 10 years and above working experience, 24(27.9%) had 7-9 years of working experience, 8(9.3%) had 4-6 years of working experience and 3(3.5%) had 1-3 years of working experience. It suggests that the majority of the headteachers had been in the profession for quite a long time. This implies that they had gotten some experiences that would help them respond to the items on the questionnaire.

4.2.3 Years in current school

The length of service of Headteachers was assessed. This is shown in Table 4.4.

Table 4.4 Years in current school

Years of Service	Frequency	Percentage
1-3 years	30	34%
4-6 years	40	48%
7-9 years	14	16.1%
10 years and above	3	3.4%
Total	87	100%

Source: Fieldwork data, (2023).

Table 4.4 shows that the majority 40(46.0%) of the headteachers had spent 4-6 years in their current school, 30(34.5%) had spent 1-3 years, 14(16.1%) had 7-9 years and 3(3.4%) had 10 years and above in the current schools.

Working experience is the practical knowledge and skills acquired through employment in any profession. Work experience is important for getting into any career. Having some can make you stand out from the crowd on applications for courses, training and jobs. Working experience is an important component of professional development since it allows individuals to demonstrate their abilities to potential employers while also learning about their chosen profession. The headteachers job experience is critical in molding a person's professional growth and success. Years in current school enables a person to be conversant with what goes on in that school. People who have stayed longer at their places of work turn to know the history pertaining to the place. This demographic information was useful to make good decisions and to understand the characteristics of a population and how it might change in the future.

Section B

4.3 Results on the Research Questions, Testing of Hypothesis and Discussion of the Results

It presents the results and discussion of results from the research questions.

4.3.1 Research Question 1: How did COVID-19 pandemic affect teaching and learning in public basic schools in the Akuapem North Municipality?

The objective of this question was to explore how does the COVID-19 pandemic affects teaching and learning in public basic schools in the Akuapem North Municipality. Items 1-7 of the interview guide were used to gather data to answer this question. A main theme of the COVID-19 pandemic adversely affected teaching and learning in public basic schools in the Akuapem North Municipality. Subthemes identified included: Change in the academic calendar, most students forgetting lessons

learned, one-on-one teaching reduced, contact hours reduced and remedial teaching reduced.

Change in the academic calendar

Academic calendars enable educational institutions to connect and communicate with all students and parents enrolled in the institution's various courses. Management frequently utilizes academic calendars as a communication tool to plan academic and administrative events. The way an academic calendar is organized has a considerable impact on the academic and goals of the educational institution.

The academic calendars are the foundation for the complete scheduling system of the educational institution. Any change in the academic calendars, such as a new test date or an unexpected holiday, could have an impact on all other timetable schedules.

The following responses were given by some of the respondents to confirm this theme. For example, HT: 1 said:

“Academic calendar was greatly affected during the period of the COVID-19 pandemic. This led to a reduction in the closure of schools, time table to guide academic work was scaled down drastically and there was also loss of contact hours” [HT: 1].

Also, HT: 7 said:

“I think the Academic calendar was greatly affected and this invariably affected contact hours. This is to say that Contact hours were reduced and time table was scaled down to enable schools to close within schedule” [HT: 7].

It suggests that the COVID-19 pandemic compelled headteachers to amend the academic calendar. The comment also reveals that as a result of the alteration in the academic calendar, the meeting time between students and teachers was reduced. Further, the comment reveals that the timetable used was also altered because of the COVID-19 pandemic.

Most students forgot lessons learned

Forgetting refers to the failure or loss of information already stored in our brain. When one first learns something, it is stored in the short-term memory, which is relatively small and can only hold a limited amount of information. If one does not actively work to transfer the information to the long-term memory, it eventually fades away.

About this subtheme, HT: 5 said:

“Due to the lockdown Students forgot most of the things learned and this made teaching and learning difficult. It was also problematic for some students to also recall topics learned let alone having time to study on their own.” [HT: 5].

Also, H: 10 said:

“I must say that the closure of schools made students forget all that has been taught. Students couldn't recall facts thereby making teaching and learning very difficult” [HT: 10].

Comments from HT: 5 and HT: 10 suggest that students could not remember concepts and lessons they had learned because of the lockdown. This implies that students could not recall facts learned all in the name of the lockdown.

One-on-one teaching reduced

One-on-one teaching provides a way for students to take control of how and when they learn, while providing teachers their own set of benefits. One-on-one teaching takes place directly between a single student and one teacher. Rather than being in a group setting with other students around, one-on-one instruction provides a setting for more interaction with less distractions.

Additionally, one-on-one teaching allows a way for students on the go, working students, or students with non-traditional schedules to be able to continue obtaining an education on their own accord. It leads to high-quality interactions

Personal Attention, Less Stress for Students with Special Needs and Easier to gauge progress and reduced distractions.

HT: 3 indicated that:

“Amid the pandemic and especially the lockdown, teachers could not give students one-on-one teaching. This was because of the social of social distancing that was instituted by the country” [HT: 3].

Similarly, HT: 8 said:

“I think the student-teacher relationship was minimised. It was difficult for students to interact with teachers for fear of contracting the disease. This was because of the lockdown” [HT: 8].

It suggests that teachers could not have sufficient time to teach students because of the lockdown. It also suggests that student-teacher engagement was reduced due to the lockdown.

Contact hours reduced

The time during which a student receives active instruction as part of a course of study. It also refers to the amount of time that students spend learning in contact with teaching. Contact hours are planned to enable teachers and students to teach and master what needs to be taught within a period of time.

HT: 6 said:

“I think learners were not always in school this was due to the fact that they thought once it was lockdown they should also be at home. Also contact hours was drastically reduced making it difficult for teachers to complete a topic” [HT: 6].

Likewise, HT: 9 said:

“At first, we used to close at 2:00pm and 3:00pm for Primary and Junior High Schools respectively. But during the COVID-19 pandemic, we used to close at 12:30pm and 1:30pm for Primary and Junior High Schools respectively” [HT: 9].

It connotes that time set for closure for primary and junior high schools reduced during the COVID-19 pandemic. This implies that lessons to be taught within this time frame could reduce.

Remedial teaching reduced

The goal of remedial education is to provide extra assistance to students who, for whatever reason, have fallen behind the rest of the class. Remedial education re-teaches what has already been learned. It develops better communication skills and motivates behavior. It enables students to 'catch-up' to their peers and thus prevent ongoing academic issues.

HT: 4 had this to share:

“Remedial tuition was absent during the COVID-19 pandemic. For that reason, we could not do much in terms of teaching and learning. Low performing students couldn't attend to because we had to close within time schedule” [HT: 4].

HT: 7 was of a similar view when she said:

“We could not do extra classes for the students during the COVID-19 pandemic. This was because we had to close from school early and for that matter it adversely affected the extra classes we used to organise for our students.” [HT: 7].

It denotes that teachers were unable to hold extra classes for students because of the closing time that was shortened. This signifies that teachers are likely not to be able to complete topics in the syllabus. Based on the results, it was concluded that COVID-19 pandemic negatively influence teaching and learning in public basic schools in the Akuapem North.

This affirms Russel's (2020) study findings that over one billion pupils have been affected by school closures caused by COVID-19 to date. Also, UNESCO (2020) found that by March 18, 2020, 107 countries have reportedly closed their national

schools due to COVID-19 in response to the coronavirus pandemic, affecting 862 million children and teenagers, or almost half of all students worldwide.

Moreover, according to Bozkurt and Sharma (2020), the COVID-19 epidemic has resulted in the closure of schools and universities, affecting more than 1.5 billion students of all ages from around the world. Additionally, 90% of all enrolled students worldwide are affected, and school closures have increased learning disparities and disproportionately harmed vulnerable children and youth (UNESCO, 2020). Similarly, Setiawan (2020) reported that numerous issues affected both teachers and students during COVID-19 epidemic.

4.3.2 Research Question 2: What resources were available to headteachers in managing the impact of the COVID-19 pandemic on teaching and learning in public basic schools in the Akuapem North Municipality?

The objective of this question was to discover educational resources available to headteachers in managing the impact of the COVID-19 pandemic on teaching and learning in public basic schools in the Akuapem North Municipality. Items 1-10 under section B of the questionnaires were used to gather data to answer this question. Data were analyzed using means and standard deviations and results are presented in Table 4.5

Table 4.5: Results on instructional resources available to headteachers

	Means	Standard Deviations	Ranking
I have charts in my school	9.63	1.89	1st
I have real objectives for teaching and learning	8.43	1.64	3rd
I have text books for teaching and learning	7.42	1.58	4th
Study guides are available in my school	7.32	1.46	5th
Teachers' handbooks are available in my school	6.67	1.31	7th
Computers are used in teaching pupils in my schools	6.98	1.38	6th
Television is used in teaching and learning in my school	5.45	1.29	8th
Handouts and pamphlets are used to teaching in my school	4.32	1.21	9th
Teachers in my school use transparencies when teaching	8.54	1.74	2nd
My school lacks photographs for teaching and learning	3.75	1.06	10th

Source: Field data, (2023)

(Total Number of Headteachers=87)

In Table 4.5, the results show that the present of charts had the highest score ($M=9.63$, $SD=1.89$). This was followed by transparencies ($M=8.54$, $SD=1.74$), real objects ($M=8.43$, $SD=1.64$), text books ($M=7.42$, $SD=1.58$), study guides ($M=7.32$, $SD=1.46$), computers ($M=6.98$, $SD=1.38$), teachers' handbooks ($M=6.67$, $SD=1.31$), television ($M=5.45$, $SD=1.29$), handouts and pamphlets ($M=4.32$, $SD=1.21$) and lacks photographs ($M=3.75$, $SD=1.06$).

The results indicates that majority of the headteachers in the study area reported that there were more of visual instructional materials for teachers to use in their schools. This result signifies that there were less of audio instructional materials. Further, the result denotes that there were less audio-visual instructional materials. Based on these results, it was concluded that charts, transparencies, real objects, and text books were

educational resources available to headteachers in managing the impact of COVID-19 pandemic on teaching and learning in public basic schools in the Akuapem North Municipality.

This finding confirms that of Tomlinson, & Imbeau (2023) who discovered that in order to help pupils efficiently understand the topics, charts are employed in every subject. The pupils can efficiently learn the ideas with the use of charts (Tomlinson, & Imbeau, 2023). Also, Busljeta (2013) found that using textbooks, teachers can teach pupils the fundamentals of many ideas. These were created by authors specifically for students to aid in their learning. A textbook is any book that has been specifically written by the author(s) for the purpose of teaching a specific course. It is used in classrooms for all topics as an essential foundational teaching-learning tool. Again, Tomlinson, & Imbeau, 2023, established that textbooks are used to educate all courses in pre-schools, elementary schools, secondary schools, and senior secondary schools. For all courses, including Physics, Social Science, Mathematics, Hindi, English, and so forth, textbooks are required. Students must bring their textbooks to school in order to participate in class. These also include exercises that students must do at the conclusion of each lesson plan in order to fully comprehend the lesson plans.

4.3.3 Research Question 3: What strategies are adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality?

The objective of this question was to explore strategies adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality. Items 8-13 of interview guide were used to gather data to answer this question. Three themes were identified: Adherence to

COVID-19 pandemic protocols, education, and provision of personal protective equipment (PPEs).

Adherence to COVID-19 pandemic protocols

Adherence towards prevention and control measures for COVID-19 was a preventive measure endorsed by the government such as hand washing, using a facemask, keeping physical distance, not travel to a crowded place, home stay, and not travel to anyplace during the pandemic. This was to help stop the spread.

HT: 3 said:

“We managed COVID-19 pandemic by ensuring that students as well as teachers and parents followed the needed protocols. Also, some of the teachers were in-charge of setting up of washing of hands, checking of temperature, and monitoring of students during break” [HT: 3].

Similarly, HT: 4 emphasised that:

“Strict adherence to the COVID-19 pandemic protocols was one of the measures we put in place to manage the pandemic. Again, when students are sick, we isolate them, and get in touch with health personnel’s and at times we send them to nearby clinics or hospitals and also deal with issues when it comes up” [HT: 4].

It implies headteachers, teachers, and students were encouraged to follow the COVID-19 protocols. This suggests that headteachers, teachers, and students were motivated to go by the COVID-19 protocols. It connotes that some teachers were in charge of washing of hands, checking of temperature and general supervision.

HT: 3 said:

“Continuous washing of hands and wearing of mask during were used to control the spread of the COVID-19 virus. Also, social distancing was encouraged among students and teachers. Again, we had COVID-19 ambassadors and teachers who checked students’ temperatures when they report to school” [HT: 3].

Again, HT: 6 said:

“Adherence to the COVID-19 pandemic protocols, and recommending students with high temperature to health personnel were some of the strategies we adopted during the peak of the pandemic” [HT: 6].

It implies headteachers, teachers, and students were advised to follow the COVID-19 protocols. This proposes that headteachers, teachers, and students were inspired to go by the COVID-19 protocols. This suggests that some teachers were constantly encouraging the students to wash their hands and wear nose marks/face shield as well as observing social distancing.

Education

Education is a key ally in defending rights and protecting the rule of law and is an essential life skill in crises. How can you protect your rights when you do not know what they are? Sharing accurate information and science-based facts about COVID-19 will help diminish students’ fears and anxieties around the disease and support their ability to cope with any secondary impacts in their lives.

HT: 8 shared her view by saying:

“We educated teachers, and students to keep to the COVID-19 pandemic protocols and this helped in managing the pandemic. For example, students were given talks by health workers, Ghana Education Service, and individuals. Also, we give students tidbits on the pandemic every morning when they come to school” [HT: 8].

Likewise, HT: 9 said:

“Education and observation of protocols were measures we instituted to help control the COVID-19 pandemic. Also, there was continuous sensitisation of students, teachers, and parents on the COVID-19 pandemic” [HT: 9].

Again, HT: 10 said:

“Education and observation of safety protocols were strategies we put in place to reduce the spread of the COVID-19 pandemic. Also, the appointing of COVID -19 ambassadors to help check strict observance of the COVID protocols” [HT: 10].

These comments reveal that education played a key role in managing the COVID-19 pandemic in the study centre. The comments reveal that teachers and students were enlightened on how best to control the COVID-19 pandemic. It also implies that measures teachers and students were educated on social distancing and regular handwashing.

Provision of personal protective equipment (PPEs)

Personal protective equipment, commonly referred to as “PPE”, is equipment worn to minimize exposure to a variety of hazards. Examples of PPE include such items as gloves, foot and eye protection, protective hearing devices (earplugs, muffs) hard hats, respirators and full body suits. Reduces spread of infection. This provides protection against hazards, promotes good hygiene and encourages safety in the workplace.

PPEs from old students

HT: 10 said:

“Some of the PPEs we used during the COVID-19 pandemic were obtained from old students. Thus, some passed students of this school came together; raised funds and bought some PPEs such as veronica buckets, nose marks, sanitizers and presented them to the school” [HT: 10].

Also, HT: 1 said:

“Aside from the PPEs the school had; some old students came to our aid with some PPEs. They included: sanitizers, nose marks, tissue papers, and veronica buckets. These PPEs were distributed to teachers and students to use during and after teaching and learning” [HT: 1].

PPEs from community members

HT: 7 said:

“Some individuals in this community who are well-to-do came to the support to give us some PPEs. They included: Nose marks, veronica buckets, hand sanitizers, and tissue papers. These PPEs were received by me with the support of some teachers, school management committee members, and Parent Association leaders. We then distributed them to the students and teachers to be used during teaching and learning” [HT: 7].

PPEs from parents

HT: 10 said:

“I recall some parents coming to our aid in providing PPEs to support what the government brought to us. This helped to meet the needs of students and teachers concerning PPEs for them” [HT: 10].

PPEs from the Government

HT: 8 said:

“The government had been very supportive since day one. This is because the government through Ghana Education Service supplies us with PPEs to be given to teachers and students. The PPEs are used before, during, and after teaching-learning” [HT: 8].

PPEs from Non-Governmental Organisations

HT: 3 emphatically said:

“All hands were on deck to ensure the provision of PPEs for the school. For instance, apart from the PPEs given by the government, some Non-Governmental Organisations also gave some PPEs to the school. For example, veronica buckets, hand sanitizers, nose marks, tissue papers and flyers on COVID-19” [HT: 3].

PPEs from individuals

HT: 1 said:

“I also remember that some individuals gave us some PPEs to be used by students and teachers. For instance, hand sanitizers, tissue papers, veronica buckets, nose marks, and flyers on COVID-19” [HT: 1].

It can be realised from these comments that several people and groups gave to aid the schools in terms of the supply of PPEs. The comments also suggest that these PPEs were meant to be used by teachers and students during teaching and learning. Again, the comments connote that headteachers ensured that the PPEs were used for the purpose for which it was brought to the schools. The comment also signifies these headteachers had a sufficient supply of PPEs during the COVID-19 pandemic. Based on the results, it was concluded that observance of protocols during the COVID-19 pandemic, education, and supply of personal PPEs were strategies adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the ANM.

This finding departs from that of Trust and Whalen (2020) who argue that most educators appeared to be learning about online and remote teaching while teaching remotely as a result of the school closure, which demonstrates that teachers who used technology frequently in their practice had a much easier transition to remote teaching. Also, Gover, Loukkola and Peterbauer (2019), flexible learning is an educational strategy that employs a variety of student-centered teaching and learning methodologies, resources, and flexible administrative practices to meet the demands of various student population categories. Many governments made steps to promote flexible learning during the COVID-19 pandemic to lessen the effects of academic disruption. The campaign "Disrupted classes, Undisrupted Learning" was developed in China. Over 270 million students nationwide were intended to benefit from flexible online learning opportunities from the comfort of their homes as indicated by Huang et al. (2020).

Similar to this, the Australian government unveiled The Flexible Learning Toolboxes Project as a new endeavour. By making a selection of learning resources designed for web-based delivery accessible in a way that facilitates the customization and reuse of existing infrastructure in the nation's vocational education and training system, the goal was to encourage the implementation of flexible learning modes (UNESCO, 2020).

4.3.4 Research Question 4: what leadership skills were adopted by male and female headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality?

The objective of this question was to examine whether there is a gender difference in the leadership skills adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality. Items 1-8 under section C of the questionnaires were used to gather data to answer this question. Data were first analysed using means and standard deviations and results are presented in Table 4.6.

Table 4.6: Results on the gender difference in the strategies adopted by headteachers

Gender	N	Mean	Std. Deviation
Male	47	2.58	.55
Female	40	3.25	.41

Source: Fieldwork data, (2023) (Total Number of Headteachers=87)

Results from Table 4.6, female headteachers had the highest score ($M=3.25$, $SD=.41$) on the strategies they adopted in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality as compared to their counterparts ($M=2.58$, $SD=.55$). The results signify that though the sample for

male headteachers was almost the same as the female, their strategies adopted in managing teaching and learning during COVID-19 pandemic differ. Further, an independent sample t-test was conducted to find out whether the mean difference was statistically significant. The results are presented in Table 4.7.

Table 4.7: Independent sample t-test results on the gender difference in strategies adopted by headteachers

		F	Sig.	T	Df	Sig.
Gender	Equal variances assumed	3.439	.021	-5.492	85	.000
	Equal variances not assumed			-5.492	67.155	.000

Source: Fieldwork data, (2023) (p \geq 0.05).

The independent sample t-test results in Table 4.7 shows that there was a statistically significant (t= -5.492, df=85, p= .000) difference between male and female headteachers' strategies in managing teaching and learning during the COVID-19 pandemic at 0.05 alpha level. The results infer that the strategies adopted by the male headteachers were different from that of their female counterparts. The results also suggest that male and female headteachers had different strategies for managing teaching and learning during the COVID-19 pandemic.

This result signifies that perhaps female headteachers in the study area tend to focus more on building relationships with others as compared to their counterparts. The results further suggest that female headteachers could be approaching decision-making with a collaborative approach. It could also imply that female headteachers viewed power more as a shared responsibility than not. Again, the results could also denote that these female headteachers perhaps believe that building trusted relationships would strengthen their efforts.

Furthermore, though the results from Table 4.7 shows that there was a significant difference between the strategies adopted by male and female headteachers, the results did not give the magnitude effects of the differences. Therefore, an eta squared calculation was conducted to find out the effect size statistics and the result is displayed next.

$$\text{ta squared} = \frac{t^2}{t^2 + N - 1}$$

$$\text{Eta squared} = \frac{(5.492)^2}{(5.492)^2 + 85 - 1}$$

$$\text{Eta squared} = \frac{10.984}{(5.492)^2 + 85 - 1}$$

$$\text{Eta squared} = \frac{10.984}{10.984 + 84}$$

$$\text{Eta squared} = \frac{10.984}{94.984}$$

$$\text{Eta squared} = \frac{10.984}{94.984}$$

$$\text{Eta squared} = 0.115640$$

$$\text{Eta squared} = 0.1(2 \text{ decimal places})$$

The eta squared results indicate that there was a large (0.1) effect of the strategies adopted by the male and female headteachers in managing teaching and learning during the COVID-19 pandemic. This was because according to Demir (2022), an eta squared value of .01 signifies a small effect, .06 suggests a moderate effect and .1 implies a large effect. From these results, it was concluded that there was a large gender difference in the strategies adopted by headteachers in managing teaching and

learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality.

This finding concurs that of Vogel, Alhudithi and Alsliman (2021) who found that female leaders were more likely than male leaders to exhibit the following leadership traits: relational leadership, the pursuit of social justice via leadership, spiritual leadership, leadership for learning, and balanced leadership. They discovered that women often prioritise forming relationships with people over assuming a hierarchical position when leading. This includes taking a collaborative approach to decision-making rather than an authoritarian one. Also, Buchanan, Mills and Mooney (2020) found that building dependable relationships will support this effort, according to female leaders who see authority as more often than not a shared duty.

Further, in comparison to male leaders, female leaders spend more time in schools, claim Yang, Chawla, and Uzzi (2019). They acknowledge that their morality and spirituality serve as a compass for their leadership behaviours, particularly when it comes to improving the lives of children. Even though it seems like a natural part of leadership, this idea of "caring" so intensely is NOT usually seen as such. Female traits, such as those associated with "caring," which are frequently seen as appropriate and natural for women in business and the workplace but are typically found to be less than effective in a female leader, restrict and undermine female leaders and their leadership styles, according to Bogerson (2018).

Additionally, Ampah-Mensah and Brion (2021) found that one essential trait that appears to be particular to female leaders is including leadership for learning. Female leaders are not only more proactive when it comes to implementing new educational initiatives, but they also support and promote experimentation during the

implementation stage. Although they remain committed to a collaborative strategy that supports teacher growth and development, their major priority is the academic success of their students.

4.3.5 Research Hypotheses

1. **H₀: There is no gender difference in the strategies adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality.**

This hypothesis sought to test whether there is no gender difference in the strategies adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality. Independent sample t-test was used to analyze the data. Table 4.8 presents the results.

Table 4.8: Independent Sample t-test results on the gender difference in strategies adopted by headteachers

		F	Sig.	T	Df	Sig.
Gender	Equal variances assumed	3.439	.021	-5.492	85	.000
	Equal variances not assumed			-5.492	67.155	.000

Source: Fieldwork data, (2023) (p \geq 0.05).

Table 4.8 independent sample t-test results reveal that, at the 0.05 alpha level, there was a statistically significant difference between the teaching and learning management practices of male and female headteachers during the COVID-19 pandemic ($t = -5.492$, $df = 85$, $p = .000$). The findings suggest that the male headteachers' methods were different from those of their female colleagues. The findings imply that distinct teaching and learning management approaches were used by male and female headteachers during the COVID-19 epidemic.

This finding suggests that, in contrast to their male counterparts, female headteachers in the research area may place a greater emphasis on developing relationships with others. The findings also imply that female headteachers may approach decision-making in a collaborative manner. It might also reflect that female headteachers saw their role as sharing power more frequently than not. Again, the findings might suggest that these female headteachers think their efforts will be strengthened by cultivating dependable relationships.

Therefore, the hypothesis that “there is no gender difference in the strategies adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality” was rejected. However, the alternative hypothesis which states that “there is a gender difference in the strategies adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality” was accepted.

This finding corresponds with that of Koenig (2018) who found that male and female headteachers differ in terms of the mechanisms they used in dealing with the COVID-19 pandemic. Also, Smith-Rasshan (2020) argues that women's leadership qualities are also presumptively presumed. Some people automatically attribute traits of submissiveness, passivity, and incapacity to female leaders. On the other hand, female leaders are frequently perceived as being obstinate, aggressive, unjust, and cold (Stigliano, 2021). The majority of people favour female leadership, and women are held to higher standards than men Zheng, Kark and Meister (2018). Female leaders must continually achieve above expectations to show their genuine abilities because their leadership techniques are frequently questioned by coworkers, subordinates, and superiors (Davies, Potter & Grey, 2019).

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.0 Introduction

The chapter presents a summary, conclusion, and recommendations based on the findings and conclusion of the study and suggestions for further studies.

5.1 Summary

The study investigated the influence of the COVID-19 pandemic on management in public basic schools in Akuapem North Municipality, Eastern region, Ghana. The objectives of the study were to:

1. Explore how COVID-19 pandemic affected teaching and learning in public basic schools in the Akuapem North Municipality.
2. Discover resources available to headteachers in managing the impact of the COVID-19 pandemic on teaching and learning in public basic schools in the Akuapem North Municipality towards attaining educational goals.
3. Explore strategies adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality.
4. Determine whether there was a gender difference in the leadership skills adopted by male and female headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality?

The study adopted a pragmatist paradigm. The study also used sequential explanatory mixed methods design within the mixed methods approach. A sample of 87 headteachers was selected. It was made up of 47 male and 40 female headteachers.

They were selected using the maximum variation type of purposive sampling for the qualitative aspect of the study and the census sampling technique for the quantitative aspect of the study. A questionnaire and semi-structured interview guide were used for data collection. Descriptive (frequencies, percentages, means, and standard deviations) and inferential (independent sample t-test and eta squared) statistics were used to analyse the quantitative data. The qualitative data were analysed using themes and quotes.

The study found that the COVID-19 pandemic negatively influences teaching and learning in public basic schools in the Akuapem North Municipality. Further, charts, transparencies, real objects, and textbooks were educational resources available to headteachers in managing the impact of the COVID-19 pandemic on teaching and learning in public basic schools in the Akuapem North Municipality. Moreover, observance of protocols during the COVID-19 pandemic, education, and supply of PPEs were strategies adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality. Lastly, there was a large gender difference in the strategies adopted by headteachers in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality.

5.2 Conclusion

Based on the findings, it was concluded that though the COVID-19 pandemic came to disrupt the smooth running of public basic schools in the Akuapem North Municipality. Besides, headteachers had at their disposal educational resources in managing the impact of the COVID-19 pandemic on teaching and learning. Also, headteachers made sure that teachers and students strictly adhered to the COVID-19 protocols. This was achieved through the supply and use of PPEs by students and

teachers. Further, mechanisms used by male and female headteachers were different in managing teaching and learning during the COVID-19 pandemic in public basic schools in the Akuapem North Municipality.

In short, the COVID-19 pandemic has had a significant influence on educational management in public basic schools in the Akuapem North Municipality, Eastern Region, Ghana. The disruptions caused by the pandemic have necessitated adaptations and strategies to ensure continued education while ensuring the safety and well-being of students, teachers, and the community.

5.3 Recommendations

It is recommended that:

1. There is a need for investment in digital and physical infrastructure by the government. Public basic schools in the Akuapem North Municipality must have access to ICT if they are to have equitable access to education. Likewise, internet connectivity must be made free in public basic schools in the Akuapem North Municipality.
2. While the government-initiated measures to enable continuity of education during the lockdown, special efforts should be made by school heads in public basic schools in the Akuapem North Municipality to ensure students get access to teaching and learning resources. Likewise, students should be helped by heads of schools in public basic schools in the Akuapem North Municipality get access to special teaching to recover lost school time.
3. Policy-makers should invest in headteachers' capacity building in public basic schools in the Akuapem North Municipality so they are better able to use digital and information skills to guide teachers during teaching and learning.

Teachers in public basic schools in the Akuapem North Municipality should also be motivated and supported to use inclusive pedagogical approaches to ensure that students especially girls and other vulnerable groups continue to benefit from education.

4. The Ministry of Education should provide well-being, counselling, and therapy support to students and teachers in public basic schools in the Akuapem North Municipality. The focus should be on mental health, especially the challenges vulnerable students faced during the pandemic.

5.4 Suggestions for Further Studies

In the future, interested researchers may want to explore the following areas:

1. Investigating students, educators, and institutional leaders' perceptions of the impact of the COVID-19 pandemic.
2. Investigating the plausibility of open educational resources as a supplement to emergency remote learning.
3. Design and development of an alternative learning model for public basic schools in Ghana in uncertain times.

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APPENDICES
APPENDIX A
LETTER OF INTRODUCTION



UNIVERSITY OF EDUCATION, WINNEBA
FACULTY OF EDUCATIONAL STUDIES
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND MANAGEMENT

JEW/EAM/INT/27

Date: 12th, August, 2021

TO WHOM IT MAY CONCERN

Dear Sir/ Madam

LETTER OF INTRODUCTION

We write to introduce Ruth Tetteh, a student on the M.Phil Educational Administration

Management programme of the Department of Educational Administration

Management. Ruth Tetteh, is currently working on a research project titled:

“ INFLUENCE OF COVID-19 PANDEMIC ON MANAGEMENT IN PUBLIC BASIC SCHOOLS IN AKUAPEM-NORTH MUNICIPALITY, EASTERN REGION, GHANA ”

Please, give her the necessary assistance and co-operation.

Thank you.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Dr. Judith Bampo'.

Dr. Judith Bampo

Ag. Head of Department



www.uew.edu.gh

APPENDIX B

QUESTIONNAIRE FOR HEADTEACHERS

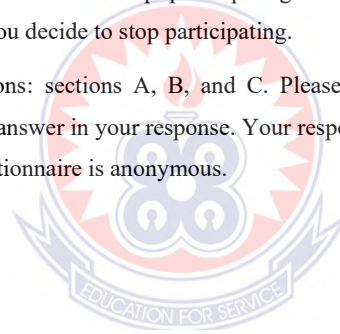
Dear Respondent,

I am a student of UEW pursuing Master of Philosophy degree in Educational Administration and Management. I am carrying out a study on the topic: **“Influence of COVID-19 pandemic on management in public basic schools in Akuapem North Municipality, Eastern region, Ghana”**. It is against this background that you have been randomly selected to participate in the research by responding to this questionnaire.

Please, you are encouraged to provide accurate information as possible. Your participation in the study is voluntary. There is no risk to you for participating other than the use of your time. You may decide to stop participating. There is no consequence for non-participation or if you decide to stop participating.

Please, this questionnaire has six sections: sections A, B, and C. Please, you are required to provide the most appropriate answer in your response. Your responses will be kept confidential in any case this questionnaire is anonymous.

Thank you.



Section A

Background Information of Respondents

Please, respond to all the items below by putting a tick (✓) in the appropriate space provided:

1. Gender:

Male []

Female []

2. Working Experiences (in years):

1-3 []

4-6 []

7-9 []

10 and above []

3. Number of years in current school (in years):

1-3 []

4-6 []

7-9 []

10 and above []



Section B**Educational Resources available to Headteachers in managing the Impact of COVID-19 Pandemic**

Please, respond to all the items on this page by putting a tick (√) in the appropriate space provided using the following scale: 1=Strongly Disagree, 2= Disagree, 3= Neither Disagree nor Agree, 4= Agree and 5= Strongly Agree.

S/No.	Items	Strongly Disagree (1)	Disagree (2)	Neither Disagree nor Agree (3)	Agree (4)	Strongly Agree (5)
1.	I have charts in my school					
2.	I have real objectives for teaching and learning					
3.	I have text books for teaching and learning					
4.	Study guides are available in my school					
5.	Teachers' handbooks are available in my school					
6.	Computers are used in teaching pupils in my schools					
7.	Television is used in teaching and learning in my school					
8.	Handouts and pamphlets are used to teaching in my school					
9.	Teachers in my school use transparencies when teaching					
10.	My school lacks photographs for teaching and learning					

Section C

Gender Difference in the Strategies adopted by Headteachers in managing Teaching and Learning during COVID-19 Pandemic

Please, respond to all the items on this page by putting a tick (√) in the appropriate space provided using the following scale: 1=Strongly Disagree, 2= Disagree, 3= Neither Disagree nor Agree, 4= Agree and 5= Strongly Agree.

S/No.	Items	Strongly Disagree (1)	Disagree (2)	Neither Disagree nor Agree (3)	Agree (4)	Strongly Agree (5)
1.	Gender did not have a direct influence on educational leadership during Covid-19 pandemic					
2.	I established clear rules and regulations to enforce discipline among pupils					
3.	I ensured that discipline was the central pillar for the entire school programmes success					
4.	I ensured that effective teaching and learning takes place in an orderly environment					
5.	I used leadership style through delegating some of my responsibilities to my followers					
6.	I involved different education stakeholders in making decisions concerning the school					
7.	I worked together with all the members of staff					
8.	I treated all my followers on equal basis					

APPENDIX C

Semi-Structured Interview Guide for Headteachers

Section A

Instructional Resources available to Headteachers

1. What learning materials do you have in your school during the COVID-19 pandemic?
2. What learning materials do you lack in your school during the COVID-19 pandemic?
3. How did you obtain these learning materials during the COVID-19 pandemic?
4. How did you use these learning materials during the COVID-19 pandemic?

Section B

Gender Differences in Strategies adopted during COVID-19 pandemic

1. What leadership styles did you use during the COVID-19 pandemic?
2. How different were the leadership styles you used during the COVID-19 pandemic from the previous ones?
3. What difference do you perceive your leadership styles to be as compared to your male/female counterparts?
4. How do you perceive male and female Headteachers' leadership styles adopted during the COVID-19 pandemic?

Section C

Headteachers Strategies adopted during the COVID-19 pandemic

1. How did you manage the COVID-19 pandemic in your school?
2. What do you think had sustained your school till now though there was the COVID-19 pandemic?
3. What roles did you assign to your teachers during the COVID-19 pandemic?
4. How did you manage your students during the COVID-19 pandemic?
5. How did you deal with the challenges during the COVID-19 pandemic?
6. Describe the support you received from individuals and groups during the COVID-19 pandemic?

Section D

How the COVID-19 pandemic affected teaching and learning

1. Describe the influence of the COVID-19 pandemic on effective teaching and learning in your school?
2. How will you describe teachers' attendance at school during the COVID-19 pandemic?
3. How will you describe students' attendance at school during the COVID-19 pandemic?
4. Describe the academic performance of students during the COVID-19 pandemic?
5. How do you perceive the academic performance of students before, and during the COVID-19 pandemic?
6. How do you perceive teachers' attitudes to work before and during the COVID-19 pandemic?

7. How do you perceive parental involvement before and during the COVID-19 pandemic?
8. Do you have any other comments based on what we have discussed so far?

