

UNIVERSITY OF EDUCATION, WINNEBA

**ACCESS TO EDUCATION IN THE MIDST OF THE COVID-19 PANDEMIC:
THE PERSPECTIVE OF PERSONS WITH VISUAL IMPAIRMENT**



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**ACCESS TO EDUCATION IN THE MIDST OF THE COVID-19 PANDEMIC:
THE PERSPECTIVE OF PERSONS WITH VISUAL IMPAIRMENT**

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Master of Philosophy
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DECLARATION

Student's Declaration

I, Evans Acheampong, declare that this thesis, with the exception of quotations and references contained in published works, which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole for another degree elsewhere.

Signature:

Date:

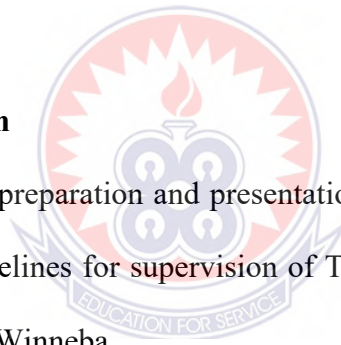
Supervisor's Declaration

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of Thesis Project as laid down by the University of Education, Winneba.

Name: Professor Awaisu Imurana Braimah (Supervisor)

Signature:

Date:



DEDICATION

It is on the strong arms and formidable shoulders of these individuals that this study rest.

I dedicate this piece of work to my dearest parents Mr. Appiah James and Amoakooa Sophia, my wonderful siblings; Appiah Gifty, Appiah Rachael, Beatrice Acheampong and Joana Acheampong.



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Thanks to my parents for their infinite support, prayers and words of encouragement which have culminated in the writing of this piece. Indeed, but for you, this research would not have seen the light of day. In conducting this research, I have drawn useful information from several authors, both local and international. Journals, articles and internet sources have also been particularly helpful. I am very grateful to these diverse sources of information which, in no small way, have enriched the content of the research. Many thanks to Prof. Braimah Imurana Awaisu and Dr. Zechariah Langnel. Both my supervisor and internal assessor respectively at the political science department in the University of Education Winneba for exceptional devotion to this piece. I say ayekoo. To all others who have contributed in diverse way towards the compilation of this piece of work but whose names cannot be mentioned I say, "God richly bless you".

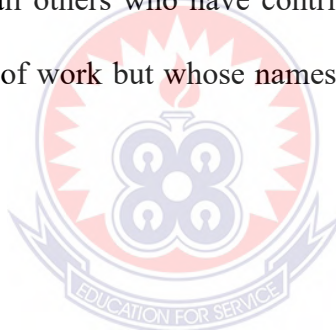


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ABBREVIATIONS/ACRONYMS

ATE	: Access to Education
AD	: Assistive Devices
AM	: Adaptation Module
BSC	: Back to School Campaign
CE	: Comprehensive Education
CBL	: Computer Base Learning
COVID	: Corona Virus Disease
DC	: Developing Countries
DA	: Donor Agency
DD	: Digital Divide
DE	: Digital Equalization
EA	: Education for All
ED	: Educational Dissemination
EEE	: Economic Effects on Education
FER	: First Emergency Response
GG	: Government of Ghana
HLE	: Home Learning Environment
HRW	: Human Right Watch
ICT	: Information and Communication Technology
IE	: Inclusive Education
IS	: Internet Services
IEP	: Individualised Educational Plan
LWVI	: Learners with Visual Impairment
MOE	: Ministry of Education

NGO	: Non-governmental Organization
OLMS	: Online Management Learning System
OPD	: Organisation for Persons with Disabilities
PWD	: Persons with Disabilities
PWVI	: Persons with visual Impairment
PTSS	: Post-traumatic Stress Symptoms
RLS	: Remote Learning System
SWVI	: Students with Visual Impairment
SDG	: Sustainable Development Goal
SMS	: Short Message Service
TD	: Technological Devices
TLR	: Teaching and Learning Resources
UDL	: Universal Design for Learning
UNCRPD	: United Nations Convention on the Rights of Persons with Disabilities
UNESCO	: United Nations Educational, Scientific, and Cultural Organization
UNICEF	: United Nations International Children's Emergency Fund
WB	: World Bank
WHO	: World Health Organization

ABSTRACT

The 2030 Agenda for Sustainable Development Goals underscores the significance of education in empowering people with the knowledge and skills to work towards individual, national and global sustainable development. Sustainable Development Goal (SDG) 4 is dedicated to the achievement of quality education, aiming to ensure inclusive and equitable education and promoting lifelong learning. Specifically, target 4.5 aims to eliminate disparities in “access to all levels of education for the vulnerable, including persons with disabilities...” COVID-19 however, appears to reverse the progress made so far on SDG four and risks harm to a generation of learners. It is for this reason that this study is an occasion to explore access to education in the midst of the COVID-19 pandemic from the learners with visual impairment perspective. The study used semi-structured interviewed guide and observational research instruments to unravel the research questions in attainment of the study objectives. Participants involved were sixteen informants comprising thirteen students, two teachers and the head of the institution in the Eastern region of Ghana were purposively sampled. From the responses of interviewees, it came out of the study findings that, the COVID pandemic has had negative outcomes on the educational content dissemination towards them. Issues of unmodified teaching content, inadequate dissemination of lessons via only radio and television programs, and non-involvement of the needs of learners with visual impairments in the online remote learning content. Lack of support from both the school and home environment. Non-existent technological and assistive devices to undergird the educational needs of learners with visual impairments. Due to the COVID-19 outbreak and the core deleterious effects imposed on them by the pandemic a situation that the research participants ascribed to one of artificial manufacture as a result of the socially constructed view of handling persons with visual impairment. This tends to overlook the needs of persons with visual impairment in any design of policies rather than their natural disability contributing or being the cause of the difficulties. Which is a palpable manifestation of systemic neglect of injustice in what is done and what is not being done. On the part of duty bearers and the educational system in general in Ghana

CHAPTER ONE

INTRODUCTION

This Chapter focused on the Background to the study, the purpose of the study and the problem statement, objectives and questions guiding the conduct of the study, justification, delimitation, Limitation and the operational definition of terms underpinning this study.

1.1 Background to the Study

Severe Acute Respiratory Syndrome-COV2 as the original name of the current pandemic popularly referred to as Corona virus or COVID-19. Originated from Latin provenance meaning ring of light. It means the configuration of the virus when observed under a microscope (Bramah, 2020). COVID-19 pandemic was first reported in Wuhan as widely known in China specifically in December, 2019. And widely with much swiftness spread its deadly an ravaging tentacles across the globe with no sense of respect to border restrictions and personal privacy. As a result, the pandemic became unprecedented in its global reach and impact. Posing formidable challenges to policymakers and to the empirical analysis of its direct and indirect effects within the interconnected global economy (Chudik, Mohaddes, Pesaran, Raissi & Rebutti, 2020). As the health and human toll explode far and beyond appreciable crisis levels. The damage on all facets of human life is already evident and represents the largest economic as well as social, cultural and psychological shock the world has experienced in decades (World Bank 2020).

The pandemic has left most national economies and businesses counting the costs as governments struggle with new measures to tackle the spread of the virus. Despite the development of vaccines, many especially in developing countries are still wondering

what recovery could look like (Chudik et al, 2021). As Shetty, Shilpa, Dey and Kavya (2020) assert, the education system is one of the most impacted aspects of routine learning and daily life. Aside from the economic, socio-cultural and psychological impact, the Corona Virus Pandemic has also brought an immeasurable toll on education systems. With those in developing economies being the most affected. For instance, as of 6th May 2020; over 177 countries closed schools, impacting over 1.2 billion learners globally. Who are mainly children and youth (United Nations Ghana, 2020). Consequently, on the 15th of March, the president of Ghana (His Excellency, Nana Addo Dankwah Akufo-Addo) ordered the closure of all educational institutions in Ghana. Affecting some 9.2 million basic school learners and 0.5 million tertiary education students (United Nations Ghana, 2020). School closures according to the United Nations Ghana, had become necessary across the globe to contain the spread of the pandemic and mitigate its effects on educational systems and human life in general. It is against this background that Human Rights Watch study on the effects of the pandemic on children's education in some selected African countries revealed that. School closures associated with the pandemic worsened previously existing inequalities. And indicated that learners who are already underprivileged stood the risk of being excluded from quality education (Human Rights Watch, 2020).

In a bid to respond to the exigencies of the pandemic and prevent a further toll on education, online learning has been the readily available option for most educational institutions. In Ghana, swift measures have been instituted, all aimed at ensuring opportunities for continuous learning amidst the pandemic. Soon after school closures were announced, the Ministry of Education (MOE) and the Ghana Education Service (GES) announced the COVID-19 Emergency Support Provision of Distance and Remote Learning Systems Solutions. Which culminated into the fresh spawn of

distance and online learning platforms and the rolling out of lessons broadcast on Ghana Learning television for over 1 million senior high school students. Digital content developed for 8.2 million kindergartens through junior high school students for TV, radio and online learning had a novel introduction (United Nations Ghana, 2020). In March 2020, the country saw most of its leading tertiary institutions switch to the online teaching model. On 24th March 2020, the University Of Ghana (UG) became the second educational institution in the country to conduct lectures online. After the Ghana Institute of Journalism (GIJ) had announced and begun online tuition the previous week (18th March 2020). With the University of Education Winneba (UEW) also joining on 29th March same year (Graphic Online, 18th March 2020; Daily Guide Network, 24th March 2020; uew.edu.gh, 29th March 2020).

This sudden and rapid transformation from an environment of conventional learning to virtual learning infused impactful consequences on the teaching and learning process (Shetty et al, 2020). Notwithstanding the achievements, challenges remain in ensuring equitable access to these education services. After some initial success, issues of digital divide, accessibility, convenience, network challenges, cost of data, digital literacy etc. surfaced as core challenges, thwarting online education (Adedoyin & Soykan, 2020; Doyumğaç, Tanhan & Kiyamaz 2020; World Economic Forum, 2020; García-Peñalvo, Corell, Abella-García & Grande, 2020). As some argue, these problems stem from the fact that the urgent transformation of the face-to-face classes to an online format was in most cases. Done in rush and not with prior, advanced and careful planning. The pandemic thus forced educational institutions to switch their programs to one of online delivery overnight, and this led administrators to adapt to this unexpected change as soon as possible (Doyumğaç, et al. 2020). Meanwhile as useful as the distance and online services propose to be. The task of managing

inclusiveness, equity, stress, anxiety, depression, and psychological trauma, while maintaining personal safety and at the same time. Ensuring smooth operation of the teaching and learning process more or less raises a hurdle for most students and teachers. Which can adversely affect the quality and effectiveness of the educational process. Again, in the face of social distancing protocols and its associated restrictions on social gathering, there is a tendency for educational institutions to focus on delivering cognitive skills at the expense of effective or socio-emotional skills (World Bank Group, 2020).

It is in view of these naked difficulties faced by students of all walks of life in their bid to access better and quality education in Ghana that this study burdens itself. While sets out on an academic course to have a scientifically proving data on what exactly person with visual impairment have been going through. In the epoch of the COVID pandemic. Persons with disability including those with visual impairment constitute the world's largest minority. Persons with disability are those who have long term physical, mental, intellectual or sensory limitation if when combine with attitudinal and environmental issues limit their ability to wholly be involved in social and societal matters. And happenings on an equal bases without any shortfall (Hayford, 2013). This group is undoubtedly diverse including persons of all ages, genders, ethnicities, religions and socio-cultural/economic standing (Hayford, 2013). More consciously, it is a group that anyone irrespective of status, background and education could be part of either by birth, illness or accident with little to no control over. They are persons with unique and normal beliefs, gifts, talents and skills just like anyone else in society. However sadly as the societal conditions unfurl, one thing such persons faced in their daily lives are vast and large. Ranging from an onslaught of discrimination, division, a barrage of extreme misunderstanding relating to their

inclusion in social life, stereotypes. Which tends to place a limitation and a barrier to their effective inclusion and participation with all other persons.

1.2 Statement of the Problem

With the expansion of the knowledge economy, the knowledge produced by the educational system and the skills possessed by its graduates are becoming deciding factors. In promoting economic progress and social welfare (Jowi et.al, 2013). Accelerated industrial growth is one of the priorities of Ghana in order to boost the welfare of her citizenry as well as economic development. To achieve these goals, several factors including building competent human resource base are required. This therefore, requires that education provides student's with job-relevant skills to meet the demands of firms and the economy as a whole in an inclusive and equitable manner (Bawakyillenuo et. al., 2013). The World Bank group (2017) however noted that, education in Africa faces many perennial challenges, including expanding and promoting equitable access. Improving learning achievement, fostering educational quality and relevance, strengthening knowledge and technology transfer, and encouraging desired values, behaviours, and attitudes. Even when governments recognize these challenges, most lack the fiscal resources to address them using the existing financing model.

The outbreak of the covid-19 pandemic has further exacerbated these challenges across the world especially in Africa and the education of persons with visual impairment is no exception. As noticeable everywhere across all educational institutions, students are struggling to cope with new challenges and demands. Brought on by the COVID 19 of which students with visual impairment have not been spared either from the ravages of the consequences. Salmi (2020) argues that, while

the disruptions caused by the covid-19 pandemic are affecting rich and poor countries alike. Disrupting the lives of all groups in society, the impact on students from vulnerable groups may be greater than for the average student population. A report on the impact of covid-19 on education in Africa by the Association for the Development of Education in Africa, (2020) notes that. The covid-19 pandemic has brought a new reality that necessitates a rethink of how quality education can be effectively delivered in an inclusive and equitable manner. With the role of technology as key enabler. As pointed out by Rashid and Yidav (2020), the COVID-19 pandemic has forced educational institutions to adapt to the rapidly changing situation in a way that was unimaginable a few months ago. Educational institutions are therefore facing huge challenges in managing administrative and institutional operations. As the World Bank (2020) puts it, the crisis highlights the need for urgent action to cushion the pandemic's consequences. Protect vulnerable populations, and set the stage for a lasting recovery. There is a growing concern for scholars and educationists across the globe to quickly find lasting solutions to insulate the education sector from further shocks from the pandemic and set the stage for a lasting recovery. Notwithstanding the abundance of literature that has been devoted to the study of education across the globe more or less. There is a limited body of knowledge on the clear-cut impacts on how the pandemic has mutated access to education on persons with visual impairment in Ghana. Major scholarly contributions in this area so far are concentrated on the impact of the pandemic on the USA, European and Asian countries (Bania & Banerjee, 2020; Mohamedbhai, 2020; Bassett, & Arnold, 2020; World Bank Group, 2020). Therefore, these studies do not accurately speak to the specific Ghanaian context. The Human Rights Watch which conducted a study on the effects of the pandemic on Education in Africa did not include persons with visual impairment at

the basic level in the list of categories studied. Secondly, the study only focused on education in general and not that of persons with visual impairment in specific (Human Rights Watch, 2020). Most existing literature which speaks to the impact of the pandemic on Ghana's educational system either focused on children or senior high school education and not necessarily on persons with visual impairment at the basic school education. Upoalkpajor and Upoalkpajor (2020) for instance in a study "The impact of COVID-19 on Education in Ghana" focused on some selected Senior High Schools in the Tamale Metropolitan Area of the Northern Region of Ghana. The Innovations for Poverty Action's (IPA) study also focused on the Impact of COVID-19 on Children's Learning and Development in Ghana. Whereas that of Nantwi and Boateng's (2020) study, Covid-19 and Education in Ghana: A tale of chaos and calm also focused on all levels of education and not specifically, persons with visual impairment education. Significantly, as it stands, no scholarly work has been done to ascertain the impact of the COVID-19 pandemic, vis-a-vis education on persons with visual impairment at the basic school level in Ghanaian educational context. All that exist on the topic is an archipelago of media reports and disjointed news outlets, which do not digest the issues comprehensively. This study, therefore, sets out to fill this void in the growing literature. By ascertaining access to education during COVID as well as the main effects of the COVID-19 pandemic on education of persons with visual impairment at the basic school level and explore some possible measures that can be implemented to promote an effective, efficient and equitable educational system. For persons with visual impairment in an inclusive manner which the United Nations ambitions on Sustainable Development Goals seeks to achieve.

1.3 Purpose of the Study

To explore access to education in the midst of COVID-19 from the perspective of persons with visual impairment

1.4 Research Objectives

The objectives of the study are:

- To find out how persons with visual impairment did access education during COVID-19.
- To explore the effects of the COVID-19 pandemic on the education of persons with visual impairment.
- To examine how persons with visual impairment adapted to the learning demands during the COVID pandemic.

1.5 Research Questions

The study is guided by the following research questions

- a. How did persons with visual impairment access education during COVID-19?
- b. What are the effects of COVID-19 on the education of persons with visual impairment?
- c. How have persons with visual impairment adapted to the learning demands in accessing education during COVID-19?

1.6 Significance of the Study

As the COVID-19 outbreak had a devastating impact on human life and shattered economies around the world (Xiang et al., 2020). With a massive jolt to the education systems both in developed and developing countries. There is every cause such as this for a study to evaluate and explore such phenomenon therefore, this study is important

for these reasons. Firstly, it is going to be a reference material which will help share knowledge about issues and concerns for persons with visual impairment in the educational sector and the factors influencing these problems. It is believed that such awareness will help the stakeholders in education especially the decision-making body, to develop appropriate and effective strategies and policies to address these problems. Again, there is an on-going debate about the impact of the COVID-19 on human lives in general, of which education is not left out and more specifically that of persons with disability in Ghanaian educational context. This study, by identifying the full effects of COVID-19 on education for persons with visual impairment will offer relevant explanation to the direct and indirect consequences of the reasons behind the causes underpinning the issues behind the impact of the pandemic. Thereby providing a scientifically proven data to the debate. Lastly, it will inform local policy on the continuous professional development on both the students and the educational institutions for better quality educational provision. To consolidate the Ghana government's effort towards quality education for all

1.7 Delimitation of the Study

This study aims at investigating access to education in the era of the COVID pandemic from the point of view of persons with visual impairment at Akropong School for the Blind in the Eastern region of Ghana. Fundamentally, the study covered two main dimensional aspects as its scope. These include theoretical/conceptual scope and geographical scope. The theoretical/conceptual scope comprises earlier studies authored by scholars, researchers and institutions with regards to education in the epoch of the COVID pandemic on persons with visual impairment concepts and issues. It is on this basis that the study builds its theoretical foundation and review a large scale of relevant literature on the subject matter.

Geographically, the selection of the setting is informed by the fact that the school is the foremost institution to start educating persons with visual impairment in 1945 which makes the institution a clear and a typical case of education for persons with visual impairment in the country.

Ergo, whatever pertains in the institution could be a clear representation and a microcosm of what pertains in other similar educational institutions which provide education for persons with visual impairment in the country.

1.8 Limitation of the Study

Limitation here constitute what the study is and what it is not in the framework of research work. Since the study is a small case single study focusing on small sample size of students and school authority in a singular educational institution. Findings are not to be enlarging in its extension to the entire country in effect. However, any milieu with similar semblance as that of the under studied institution could have this findings as important as any relevant document to rely on for reference and analysis.

1.9 Operational Definition of Terms

1. Access: The extent to which an existing material, service, programme or project is not occupied but easy to meet, acquire, have or deal with.
2. Adaptation: The process or state of changing to fit a new environment or different conditions.
3. Corona: A disease which is infectious and due to its configuration of the virus when observed under a microscope.
4. Disability: A result of a loss of physical functioning e. g., loss of sight, mobility or from difficulty in learning and social adjustment that significantly interferes with normal growth and development.

5. Equity: Enabling all people to participate effectively in a free community on an equal basis with others.
6. Impairment: Any loss or abnormality of psychological, physiological or anatomical structure or function.
7. Inclusiveness: Effective individualized support measures that are provided in environments that maximize academic and social development.
8. Perception: The ability to use the senses, to see, to hear, to touch and to smell, in order to get information about the environment.
9. Remote learning: A learning activity that is operated or performed from a distance.
10. Segregation: The practice of keeping persons with visual impairment separate, especially by enforcing the use of separate schools and other facilities, usually discriminating against their disability.
11. Visual impairment: the inability to perform activities for which sight is essential; or the loss of functional vision that cannot be corrected by medical, or surgical means, or through the uses of lenses.

1.10 Organisational Structure of the Study

The study has been organized into five main chapters. The first chapter presents the general introduction of the study. It captures the background of the study, the problem statement, research questions, and objectives, the significance as well as the operational definition of terms. Chapter two presents the theoretical framework, literature review and summary of literature.

Chapter three profiles the research methodology which comprises the philosophical world view of knowledge acquisition, research design, sources of data, population,

sample size, sampling techniques, determination of case selection, data collection methods and data analysis.

Chapter four involves the introduction of research findings, data presentation, analysis and discussion of results and Chapter five which is the final chapter provides summary of findings, conclusion, recommendations and suggestions for future research.



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Literature is discussed under the themes of the objectives guiding the study which are Access to education during COVID-19, the effects of COVID-19 on education and lastly how adaptation is made to the learning demands during COVID-19.

2.1 Theoretical Framework

At different epoch and occasion; several scholars have propounded theories to explain and aid human comprehension on why and how things happen. The way they do as well as why certain events take place in the world. Some of the benefits of theories to both the abstract and practical lives may encompass the prioritisation of information which enables humans to concentrate on the underlining factors of sensitive issues which are important for human survival. Then also to explain, describe and predict future events in order for people to be able to prepare for upcoming events.

This research makes use of one of the principal theories in social science in view of the above stated importance. That is critical disability theory which falls under the general critical theory.).

Critical Theory is proposed as a theoretical approach to providing an account of the social forces of domination that takes its theoretical activity to be practically connected to the object of the study (Hosking, 2008). For critical theory, it understood both the researcher and the thing being examined as being engaged in an interactive relationship. By this meaning, philosophy and empirical social science should influence and inform each other's work. Critical theory therefore is to have a double edge-sword which is both explanatory and normative in effect concurrently. Since

proposed, critical theory has come to include a wide range of descriptive and normative bases for social inquiry which have the practical aim of maximizing human freedom and ending the domination of some groups by others defined by class, power, race or other social construct (Hosking, 2008). Contrasting from traditional theory, critical theory makes no attempt to be normatively objective; its purpose is to explain oppression and to transform society with the objective of human emancipation. Critical theory therefore is explanatory, practical, and normative, all at the same time. Thence, critical theory therefore explains the flaws of current social reality, identify the actors to change it, and provide both clear norms for criticism and achievable practical goals for social transformation (Hosking, 2008).

Critical disability theory (CDT), as a staunch product of the overarching critical theory fraternity, is a theoretical approach to the concept of disability which is simultaneously explanatory, practical and normative. A Universalist conception of disability, which proposes that everyone may be placed on a continuum from disabled to not disabled and argues that disability is universal. Since everyone is disabled at some time in their lives, is an insufficient basis upon which to analyse the social condition of disabled people. And develop social policy which is responsive to the interests of this very diverse population (Hosking, 2008). As to be noted, traditionally the view and standpoint of society conceived disability as personal misfortune preferably to be prevented and definitely to be cured. Privileges normalcy over the abnormal', presumes able-bodied norms are inevitable, and values economic productivity as an essential aspect of personhood. However, critical disability theory adopts a version of the social model based on the principles that disability is a social construct. But not the inevitable consequence of impairment. Which means disability

is preferably best regarded as a complex interrelationship between impairment, individual response to impairment, and the social environment.

CDT recognises and welcomes the inevitability of difference and conceives of equality within a framework of different strokes for different folks. Any systematic response to disability which purports to make disability invisible is therefore inherently rendered incompetent and incapable of effectively protecting the rights of persons with disability. To be full participants in their communities (Hosking, 2008).

One of the ways in which critical theory is distinct from traditional theory is the insistence that theory must be both explanatory and normative.

Critical disability theory retains this nexus between theory and practice from its critical theory roots and is a self-consciously politicized theory. The core objective is not theory for the joy of theorization; it is theorization in an understandable pathway of progressing into empowerment. Which is retention of hitherto neglected freedoms, not just formal equality but by rejecting the survival of the fittest module.

Critical disability theory prioritised disability as it identifies the potential for the social conditions of disabled people to be other than what they are. CDT thence hinges on a social model of disability which recognises and explains disability not as the inevitable consequence of impairment but as a complex socially constructed interrelationship between impairment, individual response to impairment. And a socially created phenomenon, which fails to meet or recognized the needs of people who do not match a society's expectation of what, is considered normal. CDT welcomes and values diversity and adjusts the concept of equality to accommodate diversity. CDT ergo privileges the under-heard voices of persons with disability and relies on their voices to challenge the negative attitudes and discriminatory social institutions toward disability. These attitudes are both reflected and reinforced in the

verbiage used to describe persons with disability. Critical disability theory is consciously political. In that it objectifies support through the transformation of society so that persons with disability in all their diversity are equal participants and fully integrated into their communities. CDT provides a conceptual framework to understand the relationship between impairment, disability and society. With the objective to inject disability interests into all policy arenas. Therefore, critical disability theory seeks to achieve the following:

- Explain what is wrong in social reality.
- Identify the actors to change what is wrong with social reality.
- Introduce precise standard into social debate in order to formulate target of social change (Hoskins, 2008).

It is in view of this that education should be effective for being social balance for all groups. By destroying the social categories, racial, gender-oriented and ideas (Akbar, 2013). It is in this vein that calls for this Theory most especially during transitions in learning spaces. For instance, from the traditional face-to-face to fully digitalize online learning spaces as necessitated by COVID-19 pandemic. Though digital technologies have largely bridged the transactional distance that might have been compounded by social distance. Amponsah, (2021) has warned that remote emergency education may deepen social injustice and inequality. While Teräs, et al. (2020) expressed concerns about student equity. They theorised that in as much as students with good study skills and support may excel in online studies. Those with special needs situations such as PWVI may underachieve or truncate their studies. This observation highlights issues of social justice in open and online learning and the need to ensure access, participation and learner outcomes (Lambert, 2019). Such inequities and inequalities could be more pronounced and affect the PWVI. Lambert,

(2019) thus noted that the success of open online education can be measured not by any particular technical feature or format. But instead by the extent to which they enact redistributive justice, recognitive justice and/or representational justice (Amponsah, 2021). Bali, (2020) therefore, raises the issue of prioritizing care, empathy and emotional support beyond the physical classroom environment. And the need for policy to drive efforts towards supporting SWVIs in other learning spaces. It is in view of this and many others directly or remotely related upshots that make the choice of Critical Disability Theory CDT much more important for the study. Since the design of learning access during COVID pandemic unlike the in-personal class ignore the needs of persons with visual impairment. However, the choice of this theory is never to suggest that nothing has better being in place for the welfare of persons with disability in general and in more specific terms persons with visual impairment. But however, aims at ensuring excellence if not perfection for the education of learners with disability. It is in line with this theoretical framework that the discussed literature is considered.

2.2 Access to education during the COVID-19 pandemic

Education is considered one of the most important ingredients needed for improvement of any nation or organizational improvement (World Bank, 2017). In line with this, a nation with effective education and uninhibited access has better prospects and stands the better chance of improving the quality of human resource. The recognition of the relationship between the quality of human capital and quality educational provision calls for efforts to develop and motivate those at the helm of affairs in educational institutions. This is especially true in developing countries where socio-economic conditions make access to school improvement difficult (United Nations Ghana, 2020).

This is so given that reduction in school failure has been regarded as sine qua non for both society and individual development. It can also contribute to economic growth and social development. Indeed, the highest performing education systems the world over are those that combine quality with access and equity (OECD, 2020). Equity in education therefore is that personal or social circumstances such as gender, ethnic origin or family background do not become or imposed any barrier. As the world ultimately draws intricately interconnected, so do the related perils face. The COVID-19 pandemic has not by a hair stretch ceased at national threshold. It has affected people irrespective of nationality, level of education, or gender. But the same has not been true for its consequences, which have hit the most vulnerable hardest (OECD, 2020). Students from privileged backgrounds it is expected would have less of learning difficulties and more of learning opportunities. Those from disadvantaged backgrounds who are often remained shut out are going to suffer the worse form of it now that their schools have suffered the most unanticipated changes.

This crisis as uneven as it is in its consequential outcomes has exposed the many inadequacies and inequities in our education systems. From access to the broadband and computers needed for online education, and the supportive environments needed to focus on learning. Up to the misalignment between resources and needs (OECD, 2020). It is in line with this situation that the transformation of students and content quality most especially the one which is inclusive for all levels is significant for the realization of the educational goals in the new form of educational modernisation (ADEA, 2020). While special need education provision is highly desirable. This is inevitably more expensive because it is not always possible to identify the reality and make it possible for such group of individuals to attain such height World Bank, (2020). In this era of educational dynamics, it is very significant to equip persons with impairment with the

knowledge and competencies that will enable them meet the challenges in their educational contexts.

The COVID pandemic has changed the face of teaching and learning. It has transformed from face-to-face in the classroom to virtual meeting by using digital platforms. The use of digital platforms contributes significantly to education, including achieving online learning goals. Various digital platforms can also support online learning implementation. For example, virtual classes using services like Google Classroom and Zoom, (Bates, 2020). And instant messaging applications like WhatsApp (ADEA, 2020) have helped students learn in homes during the COVID-19 crisis.

First, Google Classroom is an application that is simple to use and does not take much space on the memory of smartphone. And it helps both the teacher and student to keep track of the lessons. Users can create a virtual class where they can function as in a conventional class. But save more time, money, and space. Google Classroom is a learning platform that can be dedicated to any educational field that is designed to help find a way out of the difficulties experienced in making paperless assignments. Haleem, et al. (2020) notes that Google classroom enables teachers to spend more time and less time on paperwork. The Google Classrooms implementation as an e-learning platform is categorized as good by learning outcomes and student responses. Besides, Shetty, et al. (2020) found that the use of this platform is effective. It is one way that schools and teachers can offer students e-learning which is attractive to students at the COVID period. While teacher learning is a process that is transformed into virtual classes.

Second, Zoom is a cloud-based service offering meetings and webinars and the ability to share content and video conferencing. For example, it helps teachers in frictionless environments to bring their students together to do teaching and learning. Zoom is the leader in modern video communication with a reliable, user-friendly cloud platform for video and audio conferencing, working together, chatting, and webinars across mobile devices, desktops, telephones, and room systems. This has been the new normal aside the radio and television where learners with visual impairment are forced to access education. The possibility of succeeding in distance education has been discussed in literature over the years (Chudick, et al. 2020). The defining element of distance education is the lack of physical interaction between teachers and students. Distance education offers a series of benefits, most prominent of which is the removal of barriers in accessing learning. Digital education for instance has the objective of providing access to education and equity in educational opportunities for those who otherwise would have been denied. (Chudick, et al. 2020).

As World Bank, (2020) outlines, distance education historically has become prevalent among countries in order to offer training to disadvantaged groups of students excluded from conventional means of learning. The power of distance education in removing access barriers in education has emerged with unprecedented strength following the outbreak of the COVID pandemic. The pandemic has contributed to raising a new awareness of the importance of ensuring that all students have access to instruction as well as their full inclusion within the teaching environment. Traditionally, the notion of inclusion' within the educational context has been, and still is, widely associated with the idea of vulnerable groups of learners. Such as the socially disadvantaged or ethnically marginalized subjects, people that may be discriminated against based on their gender, and people with disabilities or with

special educational needs (Human Right Watch, 2020). However, the massive transition to online instruction as a result of the COVID pandemic has demonstrated the extent to which the traditional notion of inclusion in education is limited. The issue of inclusive education does not refer exclusively to particular groups of learners; instead it concerns all learners. It must be assumed that, potentially anyone can become a vulnerable subject. And thus experience exclusion, even if it is just on a limited basis. Considering the virus' spread, some schools have fully reopened for face-to-face teaching. Some are offering hybrid education models (combining both face-to-face and remote education), whilst some are relying mainly on remote education (Amponsah, 2021). Reopening is a more complex challenge for special education schools.

The availability of teachers and space can limit the extent to which classes can be split into smaller groups resulting in a heavy burden on teachers (Amponsah, 2021). Since the outbreak of the pandemic, educational institutions have been navigating the complex and emergent realities of the pandemic, transitioning quickly to e-learning and blended learning modalities in an effort to mitigate the impact of the crisis on education (World Bank, 2020). Efforts to adjust to such a complex situation have demanded completely new approaches to the delivery of education. Parents and caregivers have had to school their children at home for extended periods of time while teachers are pushed to transition. This new reality has created stress, anxiety and frustration among educators, parents and students (UNESCO, 2020). Physical distancing protocols are observed by reducing class sizes and placing desks so as to maintain a prescribed distance between students. Blended learning may therefore see students attending face-to-face classes on rotation throughout the week. Online

learning is utilized on the days that students are not physically present in the classroom.

2.3 Effects of COVID-19 Pandemic on Education

The COVID-19 pandemic it is suggested will not affect students equally. But will influence negatively both cognitive and non-cognitive skills acquisition, and may have important long-term consequences in addition to the short-term ones. Rise of Digital Technology for eLearning and Virtual Education has had impact on education during this period which has been dramatic and transformative. This has been the response to the pandemic with emergency e-learning protocols, marking the rapid transition from face-to-face classes to online learning systems (Association for the Development of Education in Africa, (ADEA) 2020). The special educational institutions are facing a challenge to adapt to this change and trying to choose the right technologies and approaches for educating and engaging students with visual impairment. The special educational learning institutions will need to pay serious attention to having learners with visual impairment trained and equipped with digital technology for a smooth teaching-learning process (Haleem, et al. 2020). The government more significantly will have to step up and commit to sustained programs for professional development to boost persons with visual impairment learning capabilities. The pandemic has exposed the vulnerabilities and shortcomings of the current education systems.

As digitalization has become more and more increasingly dominant and indispensable in teaching and learning processes. It is perceived as the great equalizer in education more importantly during this era but at this stage it is also the great divider (Adarkwah, 2020). With limited connectivity and access to devices, especially

student's with visual impairment that needs it most. However, cannot profit it effectively (OECD, 2020). Physical school closure and the adoption of distance education which are direct results of the pandemic may negatively affect students' with visual impairment learning through four main channels: less time spent in learning, stress symptoms, a change in the way students interact, and lack of learning motivation (World Bank, 2020). However, in spite of this, remote schooling is fundamental to ensure the continuity of learning in situations where in-person classes are suspended. During the lockdown, students from more advantaged backgrounds and without disability tend to be more engaged in extra-school learning activities than those from less advantaged backgrounds. Such activities may considerably improve student achievement as they may complement the e-learning resources provided by schools.

Another very unavoidable hindrance students with visual impairment are likely to encounter is the issues of digital skills of tutors. In order to transmit and impart the required knowledge onto their students during the pandemic with students with disability at hugely disadvantageous stand. Even before the COVID-19 pandemic, persons with visual impairment in Ghana were facing educational challenges. According to Human Right Watch, challenges in schools are not minor. Classes are usually overcrowded. With the associated shortage of trained teachers and textbooks (Human Rights Watch, 2020). Outside the classroom, learning losses may translate into greater long term challenges on learners with visual impairment. The various online programmes do not positively inure to the utmost benefit for the intended educational goals. The pandemic requires the need for educational services to give students the skills' to deal with exceptional circumstances. For instance to protect themselves from associated risks to their health and psychological well-being. And to

provide them with additional support should they need it. These include Mental Health and Psychosocial Support 4 Social and Emotional Learning (Di-Pietro, et al. 2020). It is therefore essential that these components of education are not marginalized by an exclusive focus on the academic component. And that there are mechanisms for the remote delivery of blended learning models. Involve part-time study in school combined with some learning at home.

The COVID-19 crisis has undermined the role that schools play in structuring student's lives. Through the routine of attending classes and engaging with peers and teachers in a safe environment. This includes facilitating access to certain basic needs like education and healthcare services and identifying threats to students. As students have been kept away from schools for an extended period and learning has been relocated to the home. Safe spaces have been closed and the limited access of education professionals to learners with disability increases the risk of poor learning outcomes and could increase the risk of neglect. Deprivation, abuse and maladaptive psychosocial outcomes. With the diminished role of face-to-face education, many teachers also struggled with the transition to an online system, lacking the technical capacity, resources and support to transfer easily to the new online modalities and e-learning pedagogies. Educators complained of the competing responsibilities of caring for learners during lockdowns while having to respond to the new demands (UNESCO, 2020, Shetty, et al, 2020). In all of this, students had to rapidly adjust to enforced isolation and the removal of safe spaces and their social networks. Remote learning has been a challenge for some, with new demands for self-management and self-study. Students who did not have access to e-learning were immediately placed at a disadvantage with no access to schooling and even more time on their hands (ADEA, 2020). Across countries, students were at risk of suffering anxiety, stress,

depression, confusion and other maladaptive psychosocial impacts of the crisis conditions (Di-Pietro et al. 2020).

2.4 Adaptation to learning demands

Boakye-yiadom, (2011) supports the schools creating programs to help every student from diverse groups. But the focus is more on students with visual impairment, as they have often been excluded in mainstream schools. The contention is that, schools need to reform their teaching and learning processes to accommodate diverse groups of students. This implies for example that teachers can let their student's with visual impairment have an important say in the curricula adaptation in order to suit and include their peculiar needs. This makes them feel comfortable while learning because they feel accepted in the class as they willingly partake in the class work. This entails that schools should be a place where students with visual impairment can feel free and welcomed. By this action; schools are recognised as centres where personal and social skills are developed and where great learning opportunities are realized for all children.

According to Alexander, (2000), besides curricular adaptations, instructional and environmental adaptations will also have to be made. Instructional adaptations involve any part of the teaching-learning process. That is, the teacher's instructional methods, materials and strategies. Learning activities performance requirements for each learner and assessment procedures (haleem, 2020). UNICEF, (2020) suggested that for the sake of equitable access and orderly adaptation to be achieved in learning institutions. The teacher would have to provide additional instruction and assistance in areas where the learners with visual impairment experience difficulty; structure practice activities to provide learners with enough time to master skills. Be flexible

with regard to time-frame; provide special support in particular subjects over and above the periods allotted for more traditional subjects. And change task requirements so that learners with visual impairment can listen rather than read or give answers orally rather than write. It is helpful if teachers limit the number of problems that the learners with learning difficulties must solve or the number of paragraphs that they must write. They also recommended that teachers group learners with similar needs for instruction and then change again as needed. Finally, teachers must also allow learners with visual impairment who struggle extra time in their exams and allow them to use aids such as calculators and dictionaries. The Report on Inclusive Education (World Bank, 2020) states that with regard to handling access in the case of persons with visual impairment in the educational milieu. A wide range of assessment methods should be developed in order to reflect the diversity of the learners and not to place any learner at a disadvantage, due to background, language, or disability.

According to Cheminais, (2000), the role of the classroom teacher is to manage the classroom in a manner that meets the individual needs of each student with impairment in the class. This includes promoting learning and supplementing activities, coordinating and collaborating with support staff, using a variety of teaching approaches, and adapting instruction to include all students. The classroom teacher is in charge of each student's with impairment overall academic program. Bali, (2020) contend that inadequate relevant resources and facilities is an obstacle to the implementation of accessible inclusive education in developing countries. Adarkwah, (2020) revealed that, appropriate materials were insufficient for children with impairment enrolled in regular schools. According to UNESCO, (2020), there are basically three ways through which students with visual impairment can meaningfully adjust to information from the classroom environments. Verbal

description is the most important source of information to visually impaired students. However, verbal description provided by others is always incomplete and cannot satisfy the person's needs. Another way is the use of tactile stimuli. However a tactile method is also not effective. Because a student with visual impairment needs to feel an object repeatedly in order to grasp the image of the object. The final strategy is self-exploration about the world. This way is limited in amount of information that can be accessible to students with visual impairment and would be more than ever be much difficult if not impossible in this era of COVID 19. All in all, these modalities together cannot effectively compensate for loss of visual stimuli; they are there to reduce the impact to learning caused by lack of vision. Practices of inclusive education in the way the schoolteachers are doing during the COVID pandemic show that general teachers are far away from the realities of accessible inclusive education provisions. Because learning environments are not adapted and adjusted enough to accommodate and accept the differences among students. A situation which puts learners with visual impairment more largely to a negative stead during this period of COVID-19 (World Bank, 2020).

Bates, (2020) explained the importance of setting up Individualized Education Programs for learners with visual impairment who experience barriers to learning. The Individualized Education Program requires the present level of the learner's performance as well as goals and short-term objectives. It also includes the support services as well as the supplementary aids and modifications needed by each learner. Given that in Ghana, the learners who move from a special school to a mainstream school for example from a school for the Blind to a mainstream secondary school do not have access to Individualized Education Programs that accompany them. This lack of meaningful participation is more often than not due to inaccessible

instructional methods (Amponsah, 2021). The school system and environment however require unique and proper adjustment to accept persons with impairment. So that they will get an equitable education. UNESCO, (2020) state that exclusion happened not because of the process of social relationship. But rather because of a social order. By this, the meaning is that persons with visual impairment need to conform to the norms and rules of the educational setting rather than the educational environment filling the gap to help include them. A clear case of which the COVID pandemic represents in this era of the educational delivery. But on the other hand, Robinson, et al. (2020) argues that inclusive education can be viewed as exclusion if schools and leaders do not reorganise their work and adopt new pedagogy to accept students with special educational needs. Such standpoint should be subjected to defined scrutiny in the COVID-19 pandemic where remote distance learning has been accepted lock, stock and barrel.

Inclusive learning environment should be different from the ordinary learning environment. Because an inclusive classroom contains students with different learning needs and abilities (Adarkwah, 2020). It should involve changes and modifications in content, structures and strategies with common vision. Which covers all learners in the appropriate age range. Which should, converse on the principles that all learners have a range of different abilities; all students can experience difficulties in learning (Amponsah, 2021). Therefore, all hands are needed to better manage the educational course of persons with visual impairment. In order not to impede and retrograde their smooth ride towards effective and efficient achievement towards education for all even in spite of the COVID-19 pandemic.

2.5 Summary

It is reviewed that Inclusive learning environment for persons with visual impairment should be different from the ordinary learning environment and therefore should be more so in the COVID pandemic. Because access to an inclusive classroom contains students with different learning needs and abilities. It should involve changes and modifications in content, structures and strategies with common vision. Which covers all children in the appropriate age range. And should converse on the principles that all children have a range of different abilities. All children can experience difficulties in learning. Therefore, teachers must incorporate Universal Design for Learning and accommodation in their teaching methods. Which means there must be interactive teaching, cooperative teaching and learning, peer tutoring and team learning in teaching learners with visual impairment. Most of the time it is through teacher-student interaction, student-student interaction, the use of audio, visuals, video, and finally hands-on demonstrations.

On the way forward, it was reviewed that the needs for the building of schools that welcome everyone focus on individual ability and needs. Provide support for all learners to succeed, building teacher capacities and resource schools. Apart from adapting the way in which the curriculum is accessed by means of specific instructional methods and equipment. The curriculum in itself must be adapted.

The literature shows that there are no adequate and equitable instructional facilities for persons with visual impairment during the COVID 19 in the online educational service. Which is inclusive enough for the needs of persons with visual impairment. Even if instructional facilities for academic programme are available in schools quantitatively, qualitatively many of the available facilities are obsolete. In spite of the seeming emotional, psychological, physical, social and economic difficulties pose

by the outbreak of the COVID pandemic. Finally, it is reviewed that under the unusual physical and social distancing protocol conditions. Persons with visual impairment have to face many challenges in acquiring and performing the normal educational routines. As a result of the unavailability of digital devices and teachers who possessed the require know-how to handle such individuals.



CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter describes the method that is used to conduct the study. It focused on research design, setting of the study, target population, sample and sampling technique, sources of data, method for data collection and instruments, pilot study, validity and reliability, logical and ethical consideration, and procedure for data analysis.

3.1 Research Design

The aim of this qualitative study is to explore the issues with COVID 19 and education the case of persons with visual impairment at Akropong School for the blind in the Eastern region of Ghana. And investigate ways for improving participation of persons with visual impairment in their education. It is in light of this that qualitative research which explores a social or human problem by building a complex holistic picture, analysing words rather than numbers, and providing detailed information on the views of the participants (Creswell, 2005) in their natural settings is chosen. The information gathered in a qualitative study 'reflects the experiences, feelings, or judgements of individuals taking part in an investigation of a research problem or issue whether as subjects or as observers of the scene' (Bell, 2008). Human experience therefore is shaped in particular contexts and cannot be understood if removed from those contexts. Thus, qualitative research attempts to be as naturalistic as possible. This means the contexts must not be constructed or modified. Research must take place in the normal, everyday context of the researched (Hinne, 2012).

In making methodological choices, researchers are influenced by their philosophical standpoint and their basic assumptions about social reality, the nature of knowledge and human nature (Wellington, 2003). Ontology relates to the nature and essence of things in the social world. It could be argued that a researcher's ontological assumptions relate to his or her perception of social reality or part of it. Researchers could envisage social reality as external, independent, given and objectively real or socially constructed, subjectively experienced and the outcome of human thought as expressed through language (Wellington, 2003). The study is underpinned by the philosophical standpoint that reality is a social construction which is experienced subjectively. This influenced methodological decisions in an attempt to gather Valid data to make valid interpretation for the creation of authentic knowledge' (Wellington, 2003). This ontological position leads to an epistemological standpoint which is concerned with 'the nature of knowledge, what constitutes knowledge and whether it is possible to know and understand (Wellington, 2003). This study creates knowledge and debates it in a manner which improves upon how persons with visual impairment are coping with education in the midst of COVID 19. Knowledge is therefore, seen as subjective, socially-constructed and a product of human thinking (Hinne, 2012). This places the study within interpretive paradigm.

Ontological and epistemological positioning have impacts on the research design and process. Interpretive research recognises the role of the researcher and the research participants in knowledge construction, acknowledging interpretations as 'socially constructed realities'. The research participants both the researcher and the researched acquire active roles in this knowledge construction. The interpretive paradigm is informed by the philosophical thought that 'the view of the world that we see around us is the creation of human reality. Which is better experienced through our perceptions which are influenced

by our preconceptions and beliefs' (Creswell, 2005). This thus stultifies the positivist assumption that the researchers can distance/detach themselves from the process of research or interpretation of research findings. This methodology aims to achieve depth rather than breadth, which the quantitative approaches fail to take accounts of because 'it overlooks people's ability to interpret their experiences, construct their own meanings and act on these' (Bell, 2008). Qualitative research which is an umbrella term that contains a number of approaches including but not limited to historical research, phenomenological study, ethnographic study and case study. These approaches may have some related features, however may have some discrete variance in terms of achievement and ambitions relating to what each seeks to arrive at (Grbich, 2007). Out of these, the case study approach is employed for exploration of COVID 19 and education the case of persons with visual impairment at Akropong School for the blind in the Eastern region of Ghana.

A case study is a strategy of inquiry in which the researcher explores in depth a program, event, activity, process, or one or more individuals (Creswell, 2005). It is useful when a researcher wants to understand an event that occurred to a particular person or group at a particular point in time (Hart, 2001). The choice of this approach is in line with the ontological and epistemological assumptions underlying knowledge construction. Moreover, the approach allows the use of multiple methods to collect data from the students with visual impairment in their natural context and a defined geographical area for the achievement of the purpose and objectives of the study. The experiences of participants in qualitative studies are shaped in their context and will be impossible to be understood if removed from that context (Hart, 2001).

3.2 Case Selection /Delimitation

Effective and inclusive education is very significant for the improvement of all students in education in Ghana. This implies that a countrywide study is of huge moment in its significance to research such as this particularly in these times. However, it will not be possible to involve all the students with visual impairment in the country in this particular study because of constraints of time and finance on the researcher. Therefore, it is considered appropriate to conduct a small size' research covering students with visual impairment in one area rather than a large size' research covering the whole country. Akropong Akuapem the location of the school in the Eastern region is 'handpicked' (Henn, et al. 2006) as the setting of the study. This is in spite of the sixteen administration division of the country's regional landscape into further decentralised levels. Several factors have influenced the choice of the study milieu. To start with, it represents a typical case of the study being investigated because that is where education for persons with visual impairment started in 1945. Again, the size of the setting means that it will be manageable within the duration of the study. Thirdly, the school has a strong commitment to education of persons with visual impairment particularly compared with other schools in Ghana. Finally, no personal links or advantage unduly exist between the researcher and the participants therefore their responses are more likely to be neutral.

3.3 Population of the Study

Study population is entire group of the target individual from which the sample is actually selected (Creswell, 2014). For the purpose of this study, students with visual impairment, teachers and the headmistress selected from the targeted educational institution formed the target population.

3.4 Sample Size and Sampling Technique

Sampling, according to Panneerselvam (2004), is a process of selecting a subset of randomised number of members of the population of a study. Sample size is therefore the number of members of a population selected to take part in a study. Sixteen {16} participants, comprising thirteen student's with visual impairment, two teachers and the headmistress were purposively sampled for the study. The purposive sampling technique is chosen because the sample is already pre-defined. In this regard, students who were in school before the advent of COVID were sampled for the study. The researcher believe that the target population has experienced both pre-COVID and post-COVID education and would therefore be in a better position to provide the researcher with all the relevant information to complete the study. This sample size is selected because it is manageable. Also, as the study is qualitative, it is necessary to select a sample that would enable the phenomenon under study to be explored for a better understanding. Creswell (2005) argues that selecting a large number of interviewees most significantly in a small case single study with homogenous population characteristics will 'result in superficial perspectives.

The overall ability of a researcher to provide an in-depth picture diminishes with the addition of each new individual or site. Additionally, a massive amount of data was generated by the interview schedule because the interviewees were offered an opportunity to express their views on issues. To do the transcription, coding and analysing of such data manually was extremely demanding within the duration of the study, especially if many interviewees are involved. Collecting qualitative data and analysing it takes considerable time, and the addition of each individual or site only lengthens that time' (Creswell, 2014). The researcher's aim is to access the multiple perspectives (Creswell, 2009) of the interviewees with different academic experiences, about key issues in the data. Therefore, maximum

variation sampling strategy, a purposive sampling procedure (Creswell, 2005), is employed to build this complexity into the study. Creswell, (2005) defines maximum variation sampling strategy as: A purposive sampling strategy in which the researcher samples cases or individuals with discrete characteristic or trait. The procedure demands that characteristics are noted down and then sites or individuals that display different dimensions of the characteristics are located.

3.5 Sources of Data

Both primary and secondary data were used for the study. Primary data provided first-hand information on the subject matter. The Primary data was collected from participants through the use of semi-structured interview and observation. Secondary data on the other hand consisted of relevant information relating to the subject matter of this study. Chapters of books, magazines, articles in journals, newspapers and internet sites were obtained from authoritative sources.

3.6 Data Collection and Analysis

A researcher working in a qualitative-interpretive framework is present with all his/her own understandings, convictions and conceptual orientation (Bell, 2008). Interacting with participants in a socio-cultural context to seek understanding and construct knowledge with them. The voice of a researcher cannot be ignored in any piece of qualitative research. Every research aims at extending the boundaries of knowledge (Creswell, 2013). This is achieved by ensuring that methods used are in conformity with theoretical framework and philosophical arguments. Bell, (2008) indicates that 'underpinning research tools are more general philosophical questions about how we understand social reality, and what are the most appropriate ways of studying it. The choice of methods is also informed by contextual and personal constraints. Kumar, (2005) argue for matching of methods to Methodological

choices to avoid mixing of inquiry approaches at paradigm level. Sikes (2004) adds that consistency and coherence are very important in assessing the quality of research, implying that approaches and methods selected for a study must be in conformity with its theoretical and philosophical positions. By contrast, Creswell (2013) argues that the choice of method for a study is influenced by the objective of the study. The information needed to address the research questions and the resources available rather than philosophical ones. In view of these arguments and profoundly being influenced by the tenets of guiding principles of research; semi-structured interview guide and observation were used to obtain qualitative data from participants.

Interview in qualitative research occurs when researchers ask one or more participants general, open-ended questions and record answers (Creswell, 2014). Semi-structured interview and observation, the main method of data collection, were conducted with selected participants in their appropriate schedule on a face-to-face basis. The interviews explored the key issues raised in the semi-structured interview schedule. The choice of the semi-structured interview was influenced by the interpretive world view of knowledge in which the study is located as well as the critical consideration of personal and contextual constraints. These are further influenced by the ontological and philosophical assumptions regarding the education of persons with visual impairment in the midst of COVID-19 knowledge construction. It is agreed that since the participants have experienced school life both pre-and post COVID they stand the better stead to offer relevant information to the study in question. Therefore, an opportunity was created for them to present their experiences and construct their own world. The questions in the interview schedule were therefore semi-structured for the achievement of this purpose. Each of the participants was interviewed on one-on-one occasion in an interview session at a location which was free from distractions. Prior to each interview session the consent of the interviewee was

sought to audio-tape the responses. Also, brief notes were taken in the event of tape-recorder malfunction.

However, to ensure validity and reliability of results, triangulation which is the use of two or more research instruments in data collection to confirm findings was properly employed. This is because employing two or more methods helps researchers to offset the limitations associated with one method (Creswell, 2014). In order to determine the accuracy of information gathered. This was achieved by observation from the research assistance who carefully observed the participants in their setting to ensure convergence of data. Before data collection, the research instruments for data collection were piloted at Bechem unit for the blind in order to streamline the defects that arose from the data collection instruments. This also helps to avoid pre-determined answers from the main participants. Data gathered was organized manually to identify patterns and themes in the responses. Data was then analysed based on the themes developed from the responses of respondents. This strategy was chosen for these reasons: first, the researcher do not have adequate firm grasp on qualitative computer software. Secondly, the volume of data collected was manageable, making it less difficult to identify relevant text passages. Finally, the researcher's desire is to interact and have a hands-on feel of the data (Creswell, 2005). The difficulties generally connected with analysing data manually are that it exacts painstaking effort (Creswell, 2005). Since both instruments generated mainly qualitative data, the presentation went through the same stages.

The first stage was a preparatory stage, where the note made from observing participants on the field were written on separate sheets to make reading through them easy. The preparation of the interview data for presentation started with the organisation

and transcription of the audio-tape recordings. The transcription involved listening to each tape repeatedly to familiarize the researcher with the conversations and carefully written them down in the words of each interviewee. The interview data was then categorised into three types for effective management and comparisons. The next stage involved intensive and repeated reading of the data with the aim of immersing the researcher in it. The aim of this activity was to determine analytical categories or themes (Creswell, 2009). Using the researcher's professional judgement. These are often referred to as 'analyst-constructed typologies' (Bell, 2008). The development of the themes was guided by the research questions and the literature review.

The coding process began after determining the themes of the objectives guiding the research. The codes consisted of short phrases expressed by the participants in their words (in vivo codes) (Creswell, 2014) and others self-generated based on text passages, but were further reduced when they overlapped. Then related codes were aggregated under each of the dominant themes to form a framework. In the next stage, the researcher provided a detailed description of each of the major themes. Brief quotations from the data were used to objectify the description (Creswell, 2013). Since the data were collected from different categories of participants, it was analysed from their perspectives in order to build complexity into the study (Creswell, 2013). In the data analysis and discussion stage, which is contained in a separate chapter, the findings of the study were re-categorised to develop new themes. In the discussion, the researcher referenced the interview findings for detailed explanation and validation. Also, the researcher compared and contrast issues and ideas with the existing body of knowledge, especially those in the literature- review chapter of this particular study.

3.7 Ethical Consideration

Ethical consideration of a research work constitutes the professional touch which is expected from a researcher in order to avoid any violation of individual right as well as to vouchsafe the authenticity and trustworthiness of the work being done.

For this to be ensured, first of all, the researcher secured an introductory or approval letter from the Political Science Department allowing the researcher and his assistants to go the field to conduct the study. On the field, participants were informed the purpose of the study and information sought was used solely for academic purposes. The anonymity of respondents was also ensured and protected. And credit was given accordingly to all materials that were used in the study to avoid issues of plagiarism.

Lastly, efforts were made to avoid bias which violates ethical standards. Kumar (2005) indicates that 'bias is a deliberate attempt either to hide what you have found in your study, or highlight something disproportionately to its true existence. As a researcher, I am embedded in prejudices, have my own convictions and conceptual orientation. These may impact the findings of the study as one may argued. However; the researcher made all effort best possible professionally to ensure that the meaning of the research findings is not altered by these knowledge and experiences. The researcher ensured that the results, accepted as the subjective knowledge of the researched participants, can be traced back to the raw data of the research, that they are not merely as a product of the researcher's worldview, disciplinary assumptions, theoretical proclivities and research interests (Walliman, 2005). According to Marvasti, (2004), this can be achieved by the use of audit trail, which provides a means of ensuring that constructions can be seen to have emerged directly from the data, thereby confirming the research findings and grounding them in the evidence.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter presents the analysis and results from the study conducted at Akropong School for the Blind in the Eastern Region of Ghana. The analysis is done under the three research questions raised in the study where observation and semi-structured interview as research tools were employed to gather the necessary data on the study.

- How did persons with visual impairment access education during COVID-19?
- What are the effects of COVID-19 on the education of persons with visual impairment?
- How have persons with visual impairment adapted to the learning demands in accessing education during COVID-19?

4.1 Demographic Information

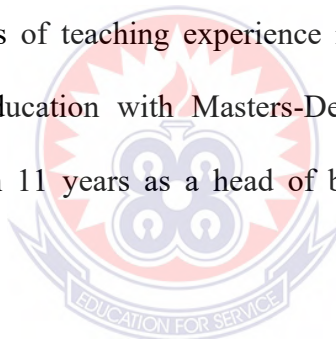
The demographic information of research informants is discussed under the following subheadings. Sex of interviewees (students, teachers and the headmistress). Teachers and the headmistress qualification, Area of specialization and experience. These factors have an impact on the acquisition of educational content, access and adaptations to teaching and learning process by learners with visual impairment. Sex, Age, and Class of Students. The research informants consisting learners with visual impairment involved in the study were seven male and six females amounting to 81.25% of the sample size of sixteen[16], with their ages ranging from (14-21). Three of the learners with visual impairment were in Class six, three each were in JHS one and vocational class respectively, whilst the other 4 were in JHS three.

Sex of the Teachers

The teachers involved in the study were one male and a female each in addition to the headmistress with their number constituting 18.75% of the total sample size of sixteen, and their ages ranging from 29-50 years

Teacher Qualification, Area of Specialisation and Teaching experience

Teacher experience in teaching could improve quality access and adaptation towards the performance of learners. However, enough experience without training in the area of Special Education could not translate into effective teaching and adapting to the needs of special learners. The findings indicate that the two teachers are educated in special education, Information and communication technology ICT and social studies with eight and five years of teaching experience respectively. The headmistress is specialised in special education with Masters-Degree with 27 years of teaching experience, out of which 11 years as a head of both her previous school and the current one combine.



Research Question One

4.2 Access to education in the midst of COVID-19 pandemic.

On access to education during COVID-19 pandemic these were the responses:

Informant : “Well, I did not receive any form of instructions or learning from the school personally it was through television that I was able to learn somehow and then when school resumed we all came to school for the normal learning.”

Informant: “I will say it was quite accessible but not without some sort of difficulties since there were teaching and learning programmes on radio and television where the subjects taught in our school were on-going however, I could not follow very well sometimes due to the speed of the teacher on the radio and television but from our school nothing like learning took place on the part of the teachers to us whiles we were at home. It is when school reopen that lessons are catching up a bit.”

Informant: *“Okay for the access on my part it is the books and some materials that I sent home which help me most and then also from the radio and television learning that sometimes I follow but not all the times that I am able to learn from the radio programme so I can say most of the times it is through my books.”*

Informant : *“It is accessible to some point because of the radio learning activities some of us were able to learn small from the house when we were told to go home at that time but the school never provided any teaching to us whiles at home and even at school the library does not support all that much.”*

Responses from informants show that to a larger extent, there exist some semblance of access which is not much of a problem to most of the students in the midst of the COVID pandemic because of the radio and television learning programmes which has been running on the various networks of the country by some media houses i.e. Ghana Broadcasting Corporation and Multimedia through their programmes, some learning as confirmed by the participants has been taken place which provided some avenue for learning to take place for learners with visual impairment.

This confirms what the (World Bank, 2020) in their report on disability reported that for persons with disability to be inclusive in the educational process there should be a deliberate systems or structures such as the internet, radio and television programmes which does not come with much difficulty and cost to cater for the needs of persons with disability in the new normal. Though some participants expressed some difficulty in access, largely however, it could be noted that some form of access is available for learners with visual impairment. As also noted by Shetty et al (2020) the best module of allowing access to be more impactful is through online services if persons with disability are to be considered part of the current learning activities in this period of the pandemic. To a significant extent, these above referred studies support the findings of the study as given by the participants. On whether students

receive any special method or mode of accessing teaching and learning from the school in the COVID-19 pandemic these came back from the study:

Inf: "Oh no I do not; when school shut down the school did not provide any form of teaching and learning to me and when we came back from home also teaching and learning has been the same as before the COVID-19 nothing has changed from the way teaching and learning takes place in the school."

Inf: "Not that I can remember there has been no change in how information on teaching and learning is accessed from the days of COVID-19 when it was so severe up to when school re-open where teaching and learning was also as normal as we have been receiving learning activities so for me I cannot say there has been any special way through which learning has been given to us or me in particular."

INF: "Special way? Not at all is it the normal method of teaching and learning which use to exist before and now that COVID-19 is going down a bit."

Inf: "For the school no things are as they are no new assignment or extra work in terms of reading using the computer or the braille on that HMM no."

The data indicate no significant effort of the school in providing any new or special mode of accessing information on teaching and learning since the participants all corroborated a lack of attempt of the school to offer the learners with new forms of accessing learning which would be of a great benefit to their learning course. The COVID-19 pandemic brought on a new way of approaching things in all aspect of human life of which education is not an exception therefore it is anticipated that educational institutions most significantly special needs institutions would design a new and innovative means like talking books, audio reading materials and recorded text on smart gadgets of rendering services to the learners as is the case in some educational institutions in order to avoid learning loss of students.

However, findings indicate the stark opposite of such phenomenon in Akropong School for the Blind as provided by the participants.

This was confirmed by a teacher in the school who said “We ourselves have not received any new form or method of handling the students in this period so it is the old ways that we all continued to follow in teaching them.”

However, as noted by (United Nations, 2019) on their flagship report on disability and development towards ensuring inclusive education for person with disability, the report notes that persons with disability needs extra care and attention in order for the needs to be catered for since the disability renders them vulnerable in accessing education comparing to their non-disable peers.

However, as it seems to appear, that is never the case for learners with visual impairment at the school since findings reveals a sharp contradiction of the United Nations report issued

These data were obtained when participants were asked how access to teaching and learning suitable to their needs in the COVID-19 era:

Informant: *“The access has not been all that good though we have some sort of access, but not to the best of how I in particular would have wanted it to be because during the school shut down learning was through radio and television only where I could not benefit all that much then when school open it is also the normal braille and our own recordings that I have been using without any special gadget or technology.”*

Informant: *“It has not being easy for instance, for the radio and television programmes, because it is not specifically design for the visually impaired verbal and aural explanation do not care for the special needs of our understanding. The television in particular is not disability friendly at all because description is always few and brief to my disadvantage.”*

Informant: *“Suitability is not part of the access let me say even before COVID-19 teaching and learning is never that easy for our liking from the books we read, the library, the ICT laboratory we face a lot of problems and difficulties in accessing information in print let alone on the internet. So you see, the disease only came to make our situation worse so for me yes we have access but not to my liking.”*

Informant: *“Our learning materials and access to most especially materials on the net for our use is not that suitable and same is the case in this period again, public libraries do not have suitable access to support our learning needs.”*

On the analysis of the data gathered from research participants, it is clearly noted that alright access exist in one way or the other for persons with visual impairment at Akropong School for the Blind, however from their responses it is palpably perspicuous that suitability in access is not part of the list on the menu of learners with visual impairment. This could be drawn from the above enumerated responses base on the data obtain from interviewees during the period. Though access is necessary for participation suitability in the access therefore hold the key for an effective inclusion and participation in teaching and learning most especially in this era of the pandemic. This is more so when teaching and learning does not follow the normal routine before the COVID-19 therefore suitability should be cared for if persons with visual impairment in the school are to be effective participants in education at this period. As noted by Association for the development of education in Africa,(2020) the COVID-19 pandemic has brought a new way of educational access which demands a rethink of how effective and efficient method of dissemination with technology as the key enabler. This underscore the need to stress on suitability in accessing education with learners with impairment being the most under consideration however it appears there is a sharp contradiction of this all important aspect of suitability in access for these students.

Again, as observed from the participants during the data collection in the school, access to reading materials, the use of technological devices in providing suitable access was not that encouraging as the observation reviewed insufficient to no effort of the teachers in the suitable access learning provision.

On training on teaching and learning resources or aids in accessing education in the COVID-19 pandemic on the part of the participants these were obtained:

Inf: *“No a very big no to your question whether when we were at home during the school shut down to now that we are in school there has been no training on how learning could be acquired whether on the internet or the hard print aids or resources for our learning it is still the usual norm of learning so whether training or aids we have to rely on our own self else you would be left out.”*

Inf: *“I do not think so on my part I have not received any form of resources or aids to help me access information that is for me I cannot talk for my other colleagues whether they have received or not but for me nothing of such has been given me.”*

Inf: *“The school, the government, parents or any other body has not done that to me. I could remember when I was at home because of the school closure, it was my own laptop that I used in learning and then some books that I sent home during that time but as to materials or something from anybody outside to help me access information for learning or special teaching I do not get that however what help me a bit is my little knowledge on ICT through which I could read a bit on the internet using my smart phone I can say with much confidence that libraries both at school and home has not given us enough access whether books online or the hard copies and the same could be said about home where no access exist for public libraries.”*

Inf: *“I do not get that whether at home or at school currently, I do not everything is about me.”*

Information gathered from participants on the field during the data collection point to one direction which is not quite encouraging so far as the use of teaching and learning aids or resources or training for accessing educational instructions is concern.

Informants revealed that it is on their own effort that they manage to get information during the COVID-19 pandemic.

As shown in their responses, whether on hard print or on the internet, learning and teaching activities during school shut-down at the time of the lockdown or at the period school resumed for normal face-to-face teaching and learning, access or training of any understanding on how content is obtain on educational materials has been on their own ingenuity in order to come by any relevant information of any subject that they studying.

Indeed as express by some participants, libraries to aid their smooth transition from the school learning environment to that of the home during the school shut down is non-existing as public source of libraries do not have any access or avenue to cater for their needs. Moreover, the school learning situation does not also have any solution to this difficulty as no internet access is active in the school library to provide learning materials from the net.

Although some books are maintained at the library, however, most of the books been studied at the school are not accessible in braille copies at the school library.

These responses from the participants is corroborated from the observations made at the school when it was clearly observed that apart from what the students use in learning before the outbreak of the pandemic which is not enough or adequate to support their learning needs, nothing new has been added to the learning aids or resources in order to augment as well as cater for the shortfalls which the COVID-19 pandemic is likely to create in the educational process of learners with visual impairment. As recognized by (Materu, 2007), (World Bank, 2020), (Shetty et al, 2020) teaching and learning aids or resources such as computers with internet access, smart phones, overhead projectors, Perkins Braille optacon machines are needed for the effective teaching and learning for learners with visual impairment.

These resources and many others of like nature provide enormous advantage for learners with visual impairment for inclusive and effective participation in the teaching and learning process. Conversely as espoused by the research participants, these aids are not readily available for their good and judicious use more significantly when the COVID-19 pandemic has come to make such aids or resources more needful and important than ever. Moreover, the study by the Association for the Development

of Education in Africa, (2020) also noted the use of digital devices as the important facilitator in spreading effective education most especially for persons with disability.

But responses gathered from informants in the school quite deviate from these espoused norms and principles.

When asked how participants compare suitability of access to education before and during the COVID-19 pandemic these were the responses:

Informant: *“Hmmm in my candid opinion, it is quite obvious that in comparison before COVID-19 pandemic access to teaching and learning is very good and suitable for our needs as against when COVID-19 came. This is because mainly education during the COVID-19 pandemic was almost all the time either on radio, television or the internet of which access was not all that easy when I compare the two situations in fact actually, I personally have not benefited on the television and the internet programmes because I do not have computer with internet connection or smart phone to access materials of such nature. So for me before COVID-19 is the best.”*

Informant: *“Yes of course; during COVID-19 have not been best to my liking you see, mostly we rely on braille books for learning but the books are too heavy and bulky to carry home even when we are going on vacation. So in my case I could not carry a lot of books and one thing is also that I did not expect that the COVID-19 would take a long time for us to stay at home because let me say most of us thought may be a month or two we would return to school for teaching and learning. In that moment I for examples did not take books home and many were my colleagues who also did not carry home books. And there again access during the school closure was mainly on radio and television which I did not enjoy that much comparing to when I use my braille books or the face-to-face when my teachers come to teach me directly so yes before COVID-19 is better than during COVID-19.”*

Informant: *“Though there were some difficulties before the COVID-19 pandemic came, as usual as human you should not expect that everything would be hundred percent in life. So some problems were there but I can say still when COVID-19 was not there teaching and learning was far better than when COVID-19 came. Because during the school shut down, everything was on the net I remember very well Joy News Channel broadcast some educational programmes but you know as someone who cannot see I did not learned any better thing from the TV. Moreover, it is for the SHS students and not for us in the basic schools it was only Ghana Broadcasting Corporation which did learning programme on radio but even that because it was not classroom teaching yes I followed but I missed most of what they were saying and even you cannot asked questions if you do not understand any point so definitely before COVID-*

19 pandemic education was the best than when COVID-19 came and then now that we are in school, teaching and learning is also better than the time we were home.”

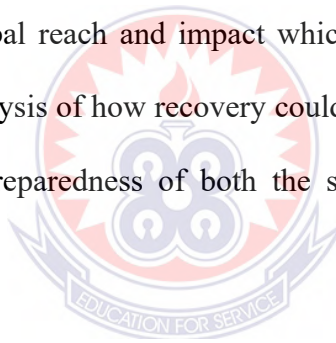
Informant: “Please I like the period when there is no COVID-19 than when COVID-19 outbreak made us go home I did not learned anything at home but when you are in school, it can happen that your friend can let you learn when you see them learning or even they can call you for group studies but at home nothing like that occurred and now even we are told by the school authorities not to do group studies because of the social distancing issues so if you cannot learn alone that is surely going to affect your performance in class. This disease oh no I do not know what to tell it.”

Data assembled from research participants during the period tells of the informant’s special preference to teaching and learning prior to the outbreak of the deadly pandemic to when COVID-19 came to make the already existing problems much more daunting. As could be detected from the earlier expounded responses all research participants confirm even if some challenges are with the previous conditions of teaching and learning the outbreak of the pandemic came to aggravate and exacerbate the already compounding situation in accessing teaching and learning activities. As noted by the participants, social or physical distancing protocols measures are of detrimental effect on their access to education. Quite apart from that during the COVID-19 pandemic access to education has been on either radio, television or the internet of which no meaningful assistive devices or training of any sort has been rendered them. This unfortunate phenomenon has made access to teaching and learning difficult in this COVID-19 era where access to education is mostly needed in order not to leave anybody behind in the educational process most significantly persons with visual impairment. Sadly on the teachers side, as revealed by a teacher in the school during the data collection, she said “There has been no plan or programme by the school which is so coordinated to have the students on board in ensuring effective access to education since the pandemic came unexpectedly when

everybody is left unprepared. So there is nothing the school could do independently to help our students on our own effort.”

The confirmation of the teacher validates why all responses from research participants preferred education before the outbreak of COVID-19 pandemic to when the pandemic arrived. These findings from the participants confirm what the study of (Human Rights Watch, 2020) reported that the school closure due to the COVID-19 pandemic would worsen the already existing gap in educational inequalities and therefore children who are vulnerable and disadvantage stands the most disadvantage stead to be much affected.

Again, according to (Chudik et al, 2020) the COVID-19 pandemic has been unprecedented in its global reach and impact which poses formidable challenges to policy makers on the analysis of how recovery could look like. Clearly confirming the frustrations and the unpreparedness of both the school authority and the students during the study.



4.3 Research Question Two

The effects of COVID-19 pandemic on the education of persons with visual impairment.

On how the COVID-19 protocols have affected access to educational content these responses were gathered from participants:

Inf: “For sure, it affected my mode of information access. If you could remember, during the lockdown and the school shutdown; movement outside your home to other environment was not that easy apart from that, you know for many of us walking alone is not that possible as you would need another person to walk with. And here is the situation we were told as part of the measures to avoid the spread of the disease we should not walk in pairs so even if it is any library or somebody that you want to go to for studies that is not possible then in the school right now group studies is not all that effective among ourselves because we are told not to

group and crowd together so even here we cannot do any proper learning among ourselves so it has affected me.”

Inf: “The protocols have affected me in some way in the sense that, because teaching and learning has not been only the classroom own but online and media stations access is not also got on the usual way but there has been some changes to it making it quite difficult. Because of the protocols of social distancing, we do not meet regularly for teaching and learning even when we were at home I did not learn at all; all because of the lockdown in the country and the school lockdown you see for us who are blind, it is not every teacher or school that you can go or teach you so in the house I could not benefit from any extra classes so I have been affected by the protocols.”

Inf: “Both at home and school I have been affected. At home there was no classes for me because I could not go out and again because I cannot be handled by any teacher I did not get any studies then in the school now we do not have any assistive devices to get learning so really it not that smooth for me getting teaching and learning easily because of the protocol measures.”

Inf: “Yes, very well the protocols affected my movement, learning and I can say all my entire activities this does not apply to me alone I can say all persons with visual impairment everywhere because of our situation. For example, before we went home because of the school closure, I was copying notes and it was one of my friends who was reading the braille copy for me to copy then the news came for us to go home but at home I could not get any of my family members to read the notes to me because none of them could read the braille but it is the braille that I mostly rely for learning. Then in the school, our group studies are affected because of the COVID-19 the time for learning is also reduce so yes it has affected me very much.”

Findings from the outcome of the data gathered from interviewees at the period of study suggest that the implementation of the COVID-19 protocols has brought some sort of insidious effect on how educational content is accessed.

All participants pointed out that with the onset of the school closure and the home stay access has been affected because of their inability to access subject related content from other teachers or educational institutions owing to their form of disability of which not everybody is train to handle their special needs.

Then in the school one of their major mode of receiving educational content which is group studies is also affected in relation to the social or physical distancing protocol adherence being strictly implemented and monitored by the school authority.

Aside these, participants regret of their inability to access libraries outside their school because of the COVID-19 protocols which forbid movement to such facilities in the heat of the pandemic alongside the social distancing protocols they have to adhere to. This prevents walking in pairs as some ways through which the protocols affected access to information. When asked during the interview on the restrictions on group studies or learning as told by the research participants, a teacher as well as the headmistress of the school responded in affirmative; confirming what the students revealed as causing some discomfort to access. These revelations from the research participants confirm that of Shetty, Shilpa, Dey & Kavya (2020) who asserted that the education system is one of the most impacted aspects of routine learning and daily life. Aside from the economic, socio-cultural and psychological impact, the Corona Virus Pandemic has also brought an immeasurable toll on education systems, with those in developing economies being the most affected. When asked whether the COVID-19 pandemic in any way affecting their psychological performance in learning, these were the reactions:

Informant: “Yes please it has, I have been thinking about when school would reopen at the time of the school closure in the days of the lockdown. I was thinking that very soon we would return to school for learning but when the time was becoming long for reopening I was wondering whether or not we would go to school again and same were some of my friends that I talked to on phone whiles at home. So I did not know whether to learn and even what to learn because I did not know my fate.”

Informant: “Sir it affected my mind a lot because the disease came when everybody is not prepared I could remember when school open we were told to do or not do a lot of things in school because of the disease even my own friends I was somehow afraid of going close to them and then again we heard that some students in some schools have got the virus so I

was a bit afraid that I may also get the disease so somehow it affected my psychological performance.”

Informant: “A very big yes to your question please I can say when I was coming to school my parents were not happy and were afraid that I may get the virus because for us mostly we walk in pairs holding our hands and here is the case they said when you come close to someone you may get it so I was afraid just as my parents were. Apart from that in the classroom though the spaces between us were big but I was still afraid of the disease and made me sit far from others most times so I do not learn from anybody or get close to them whether in class or dormitory so I have been affected in how I learn.”

Informant: “Yes because one could not receive books or any other reading materials from the other without sanitizing your hands or the material again, one could not go close to the other without the nose-mask whether in class, the dormitory, library or the dining hall sometime it get to a situation that I cannot comfortably breathe from my nose-mask and would therefore not concentrate on what the teacher is teaching me so yes it has that effect on my way of life in the school.”

The responses from the interviewed participants lay bare the fact that indeed the COVID-19 pandemic in spite of the ravaging upshots on all aspect of human lives including entertainment, movement, sporting activities, hospitality and what have you, one way or the other has had effect on the psychological make-up in terms of learning during this period for learners with visual impairment at the school.

As could be noted from the responses of the participants, issues of learning in the classroom when school resumed, life at the various dormitories, to the learning environment suggest of some psychological apprehension on the part of the learners due to the infectious nature of the pandemic whereof the students feared could be contracted when contact is in any way made to colleagues. This manifested psychological effect for all intends and purposes has affected learning process to learners with visual impairment as told by an interviewee who expressed his discomfort wearing the nose mask in classroom during instruction hours as something he perceive as detrimental to his learning environment making learning quite uneasy.

As observed from the participants during the research process, almost all of the interviewees were in their nose mask with the social distancing protocols keenly observed to its best of adherence.

Again during the interview session; a participant revealed that they are told not to group or crowd in close areas a measure which has not only negatively impacted their psychological make-up but however their social environment as well. This findings attest to that of Sprang and Silman (2013) and (Kuban & Steele 2011) which show that children who are isolated or quarantined during pandemic diseases are more likely to suffer from acute stress disorder, adjustment disorder, and grief. Such adverse psychological factors may in turn have a detrimental effect on learning outcomes.

Here participants were asked whether to some extent their academic performance due to the school closure has been affected:

Inf: "It has to some extent, yes I can say it has because whiles at home during the school closure, I could not learn first because I did not attend any classes at home. Again, I can say I was a bit lazy at home even on the radio lessons because it is not the normal classroom teaching I was relaxed and did not attach seriousness to it so when we came to school earlier I struggled a little on reading the braille because I did not practice at home at that long time staying home."

Inf: "I was somehow affected negatively because at the period the teachers in the school did not provide any special teaching or lessons to cater for our needs because of our special nature so somehow we the students in the school were behind our friends who are not blind because they were learning I can say that most were learning at home but for us nothing. Because of this we or let me say I in particular was rusty due to this problem."

Inf: "The school closure? Oh yes I did not learn! I was just empty at home at the time wasting my time doing nothing it is also said time is money or time and tide waits for no man so as you can see I just wasted my money like that! yes please I have been affected this is not only academically but my time and money as well."

Inf: “Since I in no way participating in the online classes or the radio and television programmes also did not all that benefit my learning needs then yes Errmm I was affected badly academically because as a student you have to learn and learn a lot everyday so if because of one issue or another you are not able to do that then it means you are losing something important because it just like even a car if it does not operate for a longer period it becomes faulty or rusty so yes I was affected.”

The responses on the part of the research interviewees indicate that in every aspect the students have been affected negatively on the academic performance as a result of the school shut down owing to the COVID-19 pandemic.

This the learners express stem from the inactivity of the students whiles at home at the period on the premise that in no way did the school teachers provide any educational content to them at home, again, the radio and the television programmes somehow was a safe haven for them which provided educational content related to their school lessons but in relation to that there were some gaps in access.

This as suggested by a student “I was somehow affected negatively because at the period the teachers in the school did not provide any special teaching or lessons to cater for our needs because of our special nature so somehow we the students in the school were behind our friends who are not blind because they were learning I can say that most were learning at home but for us nothing. Because of this we or let me say I in particular was rusty due to this problem.” This clearly shows that the pandemic with its associated school closure has had negative impact on the academic performance of learners with visual impairment. The responses from the research participants attest to the study done earlier in the heat of the pandemic which suggested that as of 6th May 2020, 177 countries had closed schools globally, impacting over 1.2 billion learners globally, who are mainly children and youth (United Nations Ghana, 2020).

A study conducted by the Human Rights Watch on the effects of the pandemic on children's education in some selected African countries further revealed that school closures associated with the pandemic worsened previously existing inequalities and that children who are already underprivileged stood the risk of being excluded from quality education (Human Rights Watch, 2020). Moreover, as confirmed by a teacher in the school, he stated during the interview session that "I agree that our students would be affected somehow during the COVID-19 pandemic because their mode and channel of receiving and communicating educationally would not be attended to since teachers of such special nature to cater for their unique needs are not that sufficient to offer them such attention so I believe they would be affected somehow somehow."

On the challenges with the online distance remote learning, participants gave these responses:

Informant: *"There are many as the hair on my head please if I am permitted to say that. Here is the case there has been no lessons online or even using phone text messaging service, no special technological gadgets like the smart phones with some applications to give us learning materials so for me the online programme is non-existing for us in school for the blind."*

Informant: *"I am not even aware of that I thought it is for only Universities but not for us at the basic level. No apart from the radio and the television programmes on some topics related to what we study in school, whether on text messages or using the phone application whether now or then there is nothing like that for me but I would have liked if something of that is available for me to use to learn. For example, when we were at home earlier, five of us were learning on phone using conference call but even that the credit for the calls and the network challenges us you know in Ghana everything is something else sometimes is a problem so it got to a time that we have to stop it."*

Informant: *"We did not have that in the first place before we talk about the challenges for the online using internet to learn that is no in our situation what we benefit from is the radio and the television lessons on mostly GBC network but not any other online like what some of our non-disable colleagues benefit from. I know the Universities use the online to learn even while they were at home and then I also know some private schools which learn using some application on smart phones and text messaging service both at home and school but so far as I am concern the*

distance learning has been only radio and television which do not help me that much because they use board to teach so most of the things are shown on the screen without any description so if there is nobody with you it is clear that you would not know what is going on. Then on the radio side, I struggle a bit to follow because when you only listen without the thing being shown to you to observe you cannot know actually what is being talk about so there have been some challenges even with the little one that is available to us.”

Informant: “Let me divide the issues here I can say using the online that is use by the Universities to learn where you can learn with mobile phone application that is not made for us so that is one. Then with the radio and television which we use to learn with; there are challenges with that because it is not made to address our needs there are some things we cannot complain about so you have to adjust to it like that and go on, we could also learn online and read books on the internet using the screen software application but we or I did not use that to learn unless you have your own smart phone like some of my friends are having then you would learn online but if you do not have like in my case then it is on radio and television that you have to bear like that. As one of our teachers would say keep quiet and suffer so I had to be silent and bear the situation like that because there is nobody to complain to.”

Findings obtain from research participants on the question as to whether or not the distant remote learning systems put in place in the era of the COVID pandemic posed any form of challenge whatsoever to the learning needs thereby undermining the smooth course of reaching quality educational content revealed that there has been huge hitches to thee learning systems which did not take into consideration and cognizance the learning needs of learners with visual impairment.

As express by the informants in the earlier shown interview, informants lament the non-existence of learning programmes which is access online with the use of computer software application to reach E-learning platform for learning materials as a huge difficulty which impeded the mode of teaching and learning.

Again, informants regret of how the only learning platform which provided some sort of learning activities to their learning needs and abilities has been fraught with issues of it not been disability friendly because according to the informants, because the system is not specifically disability tailored to suit their peculiar needs they participate

anyway however it is not to their best of appreciation as they would have wanted it. Informant revealed of some structures being in place to their non-disable colleagues which has been beneficial to their learning needs however to them none of such systems exist to provide them such laudable programmes. These frustrations could be vividly seen in the tone of one of the informant who said “Let me divide the issues here I can say using the online that is use by the Universities to learn where you can learn with mobile phone application that is not made for us so that is one. Then with the radio and television which we use to learn with; there were challenges with that because it is not made to address our needs there are some things we cannot complain about so you have to adjust to it like that and go on, we could also learn online and read books on the internet using the screen software application but we or I did not use that to learn unless you have your own smart phone like some of my friends are having then you would learn online but if you do not have like in my case then it is on radio and television that you have to bear like that. As one of our teachers would say keep quiet and suffer so I had to be silent and bear the situation like that because there is nobody to complain to.”

Such revelation from the participants confirm the (United Nations Ghana, 2020) report which indicated that Digital content developed for kindergartens through junior high school students for TV, radio and online learning was launched in the heat of the COVID-19 pandemic; however, not even half-way into the implementation, issues of digital divide, accessibility, convenience, network challenges, cost of data, digital literacy etc. have surfaced as core challenges, thwarting online education (Adedoyin & Soykan, 2020; Doyumğaç, Tanhan & Kiyamaz 2020; World Economic Forum, 2020; García-Peñalvo, Corell, Abella-García & Grande, 2020).

Further as observed from the informants during the study; no new technology or system design to fit the demands of the new normal is in place at the school making learning only a necessity without the aspect of comfortableness.

4.4 Research Question Three

How have persons with visual impairment adapted to the learning demands in accessing education during COVID-19?

On how the school has adapted to the COVID-19 protocols in providing teaching and learning to participants, they responded as follows:

Inf: *“Errm I am not that sure that the school in any way has adapted to our needs in providing teaching and learning to me so far as I am concern. It is nothing given when school closed for us to go home it was no teaching and learning I think when is when we came back to school that the normal teaching and learning has been taken place like the earlier one before COVID-19 came so for me Hmmm I am not sure of that.”*

Inf: *“Oh the school has not done that to my or our benefit things are as they use to be even before the COVID-19 pandemic so if I am to be specific to your question, then I can say no to that as an answer because I have seen nothing of that.”*

Inf: *“Everything remains as they were before the COVID-19 outbreak nothing special or significant has happen as far as I could remember in relation to your question for me it is no and no.”*

Inf: *“The school? You mean given us teaching and learning despite the protocols? Oh I can say with all confidence that the school has not provided any kind of teaching and learning to me under that situation.”*

Data obtain from the research participants posit that the school has not offered any avenue of disseminating teaching and learning to students during the COVID-19 pandemic with the stringent protocols birthed out of the outbreak.

According to the responses, which were all in the negative the participants show the lack of activity on the part of the school to navigate around the measures of the COVID-19 pandemic in order to offer any necessary service meaningful to the learners educational progress.

This conclusion could be supported or drawn from the uncertainty in the response as shown in this interviewee “Errm I am not that sure that the school in any way has adapted to our needs in providing teaching and learning to me so far as I am concern. It is nothing given when school closed for us to go home it was no teaching and learning I think when is when we came back to school that the normal teaching and learning has been taken place like the earlier one before COVID-19 came so for me Hmmm I am not sure of that.”

During the interview session, it became obvious of the authenticity of the participants responses that nothing clearly or definitely outline or design has been in place to provide teaching and learning to learners in spite of the protocols which has made abnormal of the hitherto normal occurrences base on the observations made on the school learning environment.

To boot, a teacher also confirm this sad phenomenon when he said, “No; all of the teachers here have not put in place any specific or unique response to mitigate the effects of the COVID-19 on how teaching content should be relayed to learners I can say out of fear and out of non-existing policy on the part of the school to plan for that as a major cause of that, in that occurrence, I am not sure I or any of us here I mean the teaching staff could be fingered for wrong doing.”

This assertion on the part of the students as well as the teacher is a major confirmation on the earlier study which suggests that The COVID-19 pandemic became unprecedented in its global reach and impact, posing formidable challenges to policymakers and to the empirical analysis of its direct and indirect effects within the interconnected global economy (Chudik, Mohaddes, Pesaran, Raissi & Rebucci, 2020 Again, as has been the argument, these problems stem from the fact that the urgent transformation of the face-to-face classes to an online format was for all intends and

purposes, done with insufficient to no prior, advanced and careful planning. The pandemic thus forced educational institutions to switch their programs to one of online delivery overnight, and this led administrators to adapt to this unexpected change as soon as possible (García-Peñalvo, et al. 2020; Liguori & Winkler, 2020). These earlier studies is a testimony of what the findings of this research understandably point to as no innovative measures have been prepared either by the school or teachers as individual handlers to undergird the learning needs of SWVI in this period. On the online remote learning platform modification to participants learning needs, these were offered:

Informant: *“No please, no there has been no audio explanation on what the teachers teach on the television program, and then on the radio it is although audio programme however, the speed and thee description done during the learning period is not disability friendly because I think it was not plan with some of us in mind.”*

Informant: *“In the first place the online service on providing teaching and learning has been only television and radio as for the internet services where we would use a programmable computers or laptops or screen software application on phones to obtain information at this time on the net; I or let me say the students here have not received anything like that and even on the radio and television programmes, there has been no modifications or adaptation on it to make us comfortable using it without any difficulties.”*

Informant: *“Yes it is there any way I mean the radio and the television but it is not all that good for me in particular it is not good because if you do not get anybody around you to explain the things to you it is likely that you cannot understand what they are teaching on the radio and more especially the TV so yes it is not adapted or adjusted because of us so that is the case for us here in school for the blind.”*

Informant: *“Errm no it is not that I am not aware of that and I am not sure something like that is there because my mates would have made me aware of that if indeed it is there that we can learn using the online for reading or downloading books for our needs.”*

On whether or not the online remote learning services has been in anyway modified or adapted for the sole purpose of including the learning needs of SWVI the responses are a sharp contrast of the question asked them. Informants posit that the only learning

platform available for the provision of teaching and learning activities which to some extent involve them in the state and institution run programmes has been the radio and television. Even on that channels of accessing information, participants manifested their displeasure on how the programmes are run without any necessary modifications such as audio attachment and description of the on-going television lessons, the paced nature of the radio programmes as well as the non-extant internet services to access learning materials electronically to inclusively speak to their needs as areas where they consider the modifications and adaptations challenging and problematic. In view of this it could be interpreted from the retorts of participants that the online platforms during the COVID-19 pandemic has not lived up to expectation as would have wanted it to be for the learning needs of PWVI at this crucial moment where online learning is a constant necessity and no longer a privilege luxury. From these findings, the (World Bank, 2020) report on disability innovative educational inclusion could be adduce to support the position taken by the informants on the study questions. The report notes that the COVID-19 pandemic swept the world more quickly than many expected, leaving education systems unprepared for how to implement remote education. In many cases, ministry personnel, school leaders, teachers, and parents and caregivers filled gaps quickly with available resources. Examples of online education, radio and television education, remote education, and caregiver home-based instruction are abundant. However, they are often inaccessible to learners with disabilities. Development organizations and governments that are interested in promoting accessible remote education can start with a commitment to accessibility based on the twin-track approach and Sustainable Development Goal (SDG) 4.

On the adaptation of teaching process to participant's academic needs, these came from the study:

Inf: *“It remains the same as it used to be just like the bible says as it is in the beginning so shall it be at the end so whether at first or now or at home during the school closure or now that school has reopened it is still the same so sir the value is the same.”*

Inf: *“That has not happen to me just as I could recall the same style of teaching, the same mode of teaching, the same format and I mean everything the same whether before or during the time COVID-19 was so severe or now that things are not that bad or severe with the COVID-19 the teaching has been the same like the old days.”*

Inf: *“No to your question, is a big no I was thinking something like that would happen to students here because when school reopened I heard that the teachers are going to use something like the phone with all the subjects on it to be given to us so you only learn from that phone without copying any notes or the teacher also does not struggle writing or dictating notes to us but I have not heard anything again from that information I was very happy of that news but up to now nothing has occurred.”*

Inf: *“For teaching, syllabus, curriculum or anything related to our teaching activities oh nothing of that has taken place here so far as I am concern in the school here we still use the same braille for anything from reading and writing the same way of the classroom teaching without any different way of getting teaching instructions or any special technique or devices for learning for our satisfaction nothing has been going on I do not know if that is going to happen now I cannot tell.”*

From the ripostes of the participants during the study, it came to light that teaching process has not been modified or adapted in any way for the purposes of meeting the urgent demands generated by the outbreak of the COVID-19 pandemic on the learning needs of LWVI. Responses generated indicate lack of novelty on the part of the teaching handlers at the school to effectively handle the learners who need such all-important service at this COVID-19 period. As indicated by a participant “No to your question, is a big no I was thinking something like that would happen to students here because when school reopened I heard that the teachers are going to use something like the phone with all the subjects on it to be given to us so you only learn from that phone without copying any notes or the teacher also does not struggle

writing or dictating notes to us but I have not heard anything again from that information I was very happy of that news but up to now nothing has occurred.”

From the responses it is quite noticeable that the learners are not happy with the current situation as such frustration could be pronounced from their retorts though they thought something positive should or could have happen however to their dismay, none of such has occurred.

The data obtain from the interviewees is in sharp contravention of the (World Bank, 2020) report on the educational inclusion of persons with disability which suggested the use of UDL for the inclusion of PWD's. This module asserts that teaching and learning should utilize a multitude of methods to support all learners, including, but not limited to, learners with disabilities. Universal Design Learning (UDL) involves three key principles of teaching so that it provides multiple means of first engagement, by helping students stay motivated to learn through a variety of methods. Second representation, by having content presented in a variety of ways, and thirdly, action and expression, by having students show what they have learned in a variety of ways. By employing various means of these 3 principles, learning achievement for all students is improved. The assertion of the informants could be corroborated from the observations made from the school learning environment which displayed nothing short of the responses of the students. On the part of the teaching staff, it came to light that the teachers are quite aware of this shortfall however they remain helpless in offering any assistance in modifying or adapting their mode of teaching.

On personal adaptation to the new ways of accessing teaching and learning, participants gave this information:

Informant: *“I have not in any special way adapted to the new trend apart from the braille books, recording book from friends and the group meeting with few friends with calls. Because I do not know what I have to do in order to be part of the system which is on-going on the radio and TV programmes so I am there like that.”*

Informant: *“Some of us used to learn on phone using conference call during the home stay three times every week that was then but now because all of us are in school, that has stopped for now what some of us here now do is that we get some print books and then get one of the teachers children at the school campus to help us read the book whiles we listen and record it in audio form for our use because the braille books are not enough for us and then again, we do not have most pamphlets on the subjects that we learn in braille books.”*

Informant: *“Please it is the same way before that I do use to learn which is the braille form of learning and then the radio lessons apart from these two nothing I know some of my friends use smart phones to learn and read books but at here even they cannot use the phones because it is the school so we cannot use phones here.”*

Informant: *“Nothing much has changed from the previous way to now I do not know if there is something like that I am not aware of apart from the braille books, some friends who do conference call with me and the radio I do not know of anything or what I should do again.”*

On the participants themselves as to how any form of modification or adaptation has been made to the access of obtaining teaching and learning content it appears no significant adaptation has been done by the participants on how teaching and learning is received. Looking at the unusual nature of disseminating teaching and learning as a result of the COVID-19 pandemic where there should be at all cost some sort of modification in the delivery and impartation of any form of the traditional face-to-face or the digital online platform, the responses from research informants point to a phenomenon of unpreparedness or what could be term as “not knowing what to do syndrome” since from their responses they seem to be in the dark as what to do significantly in order to meet the new demands orchestrated by the COVID-19 pandemic.

Their unpreparedness could be attributed to the dearth of training on their part as to how such situation should be handled effectively both from the school and the parents who have failed to perform such significant duty in the learning process of the students. For instance, a participant indicated that “I have not in any special way adapted to the new trend because I do not know what I have to do in order to be part of the system which is on-going on the radio and TV programmes so I am there like that.” Such assertion confirms an earlier study by the Human Rights Watch on the effects of the pandemic on children’s education in some selected African countries which revealed that school closures associated with the pandemic have worsened previously existing inequalities and those children who are already underprivileged, stood the risk of being excluded from quality education (Human Rights Watch, 2020).

Though some of the informants revealed some mode of adaptation such as the use of phone calls, radio and television as how they have adapted to receiving educational content clearly this is significantly inadequate judging from the demands of the outbreak of the pandemic and it impacts on human lives it is quite palpable that for such effects to be mitigated or ameliorated the resort to phone calls and radio alone cannot be sufficient avenue for a meaningful participation in the on-going method of educational delivery.

On whether participants require any special learning resources in order to adapt to accessing teaching and learning, they gave these responses:

Inf: “Sure! It is so true that at this time or period and even before the COVID-19 outbreak some resources are needed for us to learn well, so yes some resources are require if we can get them it will help us a lot to learn, for instance talking calculators, audio books,, screen software application with smart phones and others would help us a lot to learn effectively but most of us do not get that for our use here and home.”

Inf: “Yes please I think some of such resources are important to my learning and I am in need of some badly but I do not have them to help me

learn most especially with laptop computer or smart phones to learn online by downloading books online and then learn how to read and write using the computer because I do not know how to use the computer and how to search for information online using the smart phone so if I get some of the learning resources like I have mentioned it will help me a lot more to learn very well but I do not get except the braille books which is sometimes difficult to read because of the use of the fingers to read all the time.”

Inf: “I can say that because of the COVID-19 pandemic everything is not the same anymore like the time there was no COVID-19 and since everything has changed then it means my or our way of learning and life should also change because of that so to your question I think yes some resources are needed in order for us to be effective in our learning just as some of our sighted colleagues have changed their way of teaching and learning because of the COVID-19 I think we also have to adapt to the same thing by using some other devices or learning resources here I can mention some like reading books in audio, talking books, computers in order to be able to learn well in this period of the COVID-19 I think so they are very necessary.”

Inf: “For us who are visually impaired due to the disability our way of things are not like the one for anyone who does not have disability so I think even whether COVID-19 or not COVID-19 some resources are essential before we can catch up with the sighted people in learning and other things so at this time too, I think the normal teaching and learning cannot help us without any adaptation or adjustment to how we learn in school and home and for us to do that I think just as you have asked in your question on whether we need some learning resources it is true that we require some for us to adapt to that now.”

From the collated data it became noticeable that in unison all participants show in one way or the next that, some form of adaptation or adjustment needs to be made in this era when learning and teaching is still important and crucial for human survival and more especially for their education in particular whereas the COVID-19 pandemic has also made it complicated and cumbersome to reach. Participants indicated pre-COVID-19, post-COVID-19 learning and any period in between resources are essential to their learning needs and so is it in this epoch where it is even more essential than any other period as a result of the pandemic demand and consequences.

“For us who are visually impaired due to the disability our way of things are not like the one for anyone who does not have disability so I think even whether COVID-19

or not COVID-19 some resources are essential before we can catch up with the sighted people in learning and other things so at this time too, I think the normal teaching and learning cannot help us without any adaptation or adjustment to how we learn in school and home and for us to do that I think just as you have asked in your question on whether we need some learning resources it is true that we require some for us to adapt to that now.” A sentiment expressed by a participant during the interview session who without mincing words projected how important such learning resources are to them if they could be efficient partakers of the new form of learning in spite of their disability and no excuses in reference to disability as a stumbling block to total inclusion. In the report of (World Bank, 2020; OECD, 2020) on disability inclusion in education, there was an indication on limited or no access to assistive devices or accessible learning materials. According to the report, many communities and institutions within countries may lack assistive devices or other learning materials to support remote learning.

Further in a study by Association for the Development of Education in Africa, (2020) notes that, the covid-19 pandemic has brought a new reality that necessitates a rethink of how quality education can be effectively delivered in an inclusive and equitable manner, with the use of technology as one of the key accelerators. These studies highlight the significance of learning resources in this period however at the same juncture recognize the difficulties which is likely to be attached to the availability and adaptability of such resources a phenomenon which is expressed and confirmed by the participants in this study.

Discussion of Research Results

4.5 Discussion of results on research question one.

Persons with visual impairment access to education during COVID-19 pandemic. Education as integral part of human life and survival holds the key to unlocking so many potentials in the areas of developing the core human resource into quality stewards of national development. Better management and harnessing of national resources, judicious utilization of the man-power pull of a nation and all that is related to a countries growth and development. Now and what is aspired for hereafter (World Bank, 2017). As good as education is; access on the other hand is another subject on its own which needs a special attention so far as delivery of education to its utmost expectation and ideal conception is in question. More so to this point is in this period of COVID-19 pandemic where the word normal is no longer holding onto its original virtues of normalcy. The mode of transmitting knowledge does not abide by the old rules of knowledge acquisition where there were no social or physical distancing protocols. Reduction of contact hours in schools and the sudden switch to online teaching content. In recognition of this phenomenon, access to education has become more imperative with its concomitant novelty of disseminating teaching and learning to students currently and hereafter. In line with this, it is anticipated that since all learners irrespective of one's ability or disability encounter some form of difficulties in accessing educational content. Then the narrative of the learner who is visually impaired stands the precipice among all learners in this arena. Findings from the conducted study at Akropong School for the Blind in the midst of the COVID-19 pandemic display a phenomenon not quite far from this argument.

Participants tell unappealing story of some form of access most especially during the school closure. The findings revealed gaps in accessing quality educational content

delivery in both physical and virtual space of knowledge acquisition to persons with visual impairment.

Responses obtain from the research indicate two main themes.

These are the in-personal or the physical learning avenue and the remote/distance or the virtual learning avenue.

On the in-personal learning which happened after the school reopening, learning happened in three areas.

These are or were the whole class face-to-face learning with the use of lecture method which is a departure from what existed at the pre-pandemic period, the use of the school library which is of more instructors initiated and less of learner driven. This also did not exist at the period before the COVID pandemic and finally, the utilization of the school computer laboratory with some restrictions to the use of both equipment and duration.

These the study noted were the main avenues the learner's with visual impairment did access learning content during the COVID period. These sources of accessed to teaching and learning content were not adequate enough to appropriately suit the learning demands of the learners at the period. Looking at the inequalities the pandemic caused with its effects on learners who are at a disadvantage already. Such as learners with visual impairment this disagrees with Luis, (2020), OECD (2020); UNESCO, (2021) who maintain that, learners with disability needs extra care and attention when designing learning content in order to meet their peculiar needs. Then on the remote /distance or the virtual learning avenue, learning occurred via the radio and the television space with no internet learning system. This learning space the study identified came mainly at the school closure when learners were made to stay home due to the COVID outbreak.

According to the participants, the radio and the television learning content was not tailor-made. As a result, it did not effectively address the learning needs of the participants at the period where it was mostly needed. Couple with the observation that, there was no learning on the internet space for them at the period learning on the internet was a non-negotiable subject. This lack of appropriate systems in place negatively affected the learning access of person's with visual impairment.

This takes a departure from (ADEA, 2020; World Bank 2020) on the conclusion that for persons with disability to be included in the on-going teaching and learning at the COVID period, there should be deliberate systems and structures which does not come with much difficulty in order to cater for their needs.

In sum, persons with visual impairment in the era of the COVID-19 pandemic have failed to fully explore access to education to its fullest need. In spite of the availability of the online digital learning platforms. Regrettably however, teachers and authorities in the school are aware of such difficulties faced by learners as they show their full recognition of the sentiments expressed by learners. But yet indicated they cannot on their own initiate any meaningful programme to curb the difficulties learners have been lamenting about.

Given that persons with visual impairment among the marginalised group are likely to suffer the brunt of access to educational content as digitalization has become more and more increasingly dominant and indispensable in teaching and learning processes. Here it is perceived as the great equalizer in education more importantly during this era of COVID-19, but at this stage it is also the great divider (OECD, 2020).

By every extension, the challenges the research participants touched on is more of artificial than a naturally created one. This conclusion is arrived at on the basis that,

the difficulties are not as results of their inability of the students to utilize the available teaching and learning resources to their utmost advantage. But rather the impediments which the structure of educational institution has created beyond the limit of the learners. Contributing to the artificial challenges facing the smooth ride of the education of learners with visual impairment.

4.6 Discussion of Results on Research Question Two

The effects of COVID-19 on the education of persons with visual impairment. The corollary of measures to slow the spread of Covid-19 was likely to have an impactful consequence which is deleterious on the education system. It is in view of such unavoidable course that experts recognised the importance of the linkage between education and public health. A released report from the corridors of the World Health Organisation (2020) concluded that, whilst leaders had their hands full with rising Covid-19 infections, fragile health systems. Increasing food insecurity, and, in some areas, growing social unrest, education is crucial to world leaders COVID-19 response.

Education is one of the largest and most consequential government activities, and policymakers as well as stakeholders ignore it at the world's peril. Indeed, by continuing to support education during the pandemic, governments strengthen their countries' immediate Covid-19 response and long-term recovery.

It is in light of this premise that the study to investigate the effects on COVID-19 pandemic on the education of persons with visual impairment is necessary. Findings from the study revealed substantial gaps in accessing education during the period. As participants indicate the protocols of social or physical distancing have had undesirable consequences on how educational content is received. As indicate by

informants, learners with visual impairment mostly learn and do things in concert. However, the COVID pandemic with its related social or physical distancing measures came to denied them these all important avenue of accessing educational content.

These themes came out.

Negative effects due to the school closure, nonsuit ability of delivering learning content, and restrictions on the use of teaching and learning resources.

Negative effect as a result of the non-availability of internet learning content and, finally, the change in learning pattern. The study identified that the school closure which came unexpectedly with no prior preparation from both school and the learners posed huge hindrance to learners. This is because, least did the learners anticipated they were going to stay home for such a long period of time. This is a clear manifestation of the negative effects of the COVID pandemic on the school shut down.

This corroborates with (OECD, 2020) in their findings to the effect that the consequences of the pandemic would have uneven effects on learners. The study goes ahead to aver that learners with disability would be disproportionately affected since they are already disadvantage.

Again, it emerged that the COVID pandemic affected the suitability of delivering learning content to learners. From the informants, learning which exist prior the pandemic was group/ team teaching or the Individualized Education Plan (IEP) or the combination. With this mode of teaching the learners were either individually attends to base on needs or put together according to ability, however, the COVID protocols with the social or physical distancing measures restricted these modes of access which did not augur well for their needs. This was confirmed by a teacher to the effect that

the restriction was necessary in order to forestall any unintended consequences from the pandemic.

This confirms the (OECD, 2020) study which talk of the uneven balance of effects of the COVID pandemic on learners who are at a disadvantage before the pandemic outbreak.

Also emerged from the study was the restricted nature of using TLM/R to concretise abstract learning content. The study revealed that as a result of the COVID pandemic, TLM/R were not sufficiently use in the school. Chiefly, the reason was to restrict the teaching aids from being passing around from one learner to the other, which has the likelihood to spread the pandemic among the learners. As sound as this may be, it has a negative side too since limiting TLM/R would mean teaching only abstract. With no attention to hands-on learning which is essential in the learning at the stage of the basic school level.

This results confirms OECD, (2020) study that. The COVID pandemic is likely to promote more cognitive teaching and learning at the expense of practicality. The non-availability of the internet learning avenue also came out as a cause to learning gap for learners. There was no specifically design internet learning content for learners at the period. As a result, learners were made to seek information from other learning spaces which did not efficiently impact the learning needs of person's with visual impairment. This revelation from the study is at odds with (ADEA, 2020, World Bank, 2020) who argued that any form of learning either the radio, television or the internet should come in form, with total recognition to the learning needs of person's with disability. However, findings from the study do not speak to such fact which is not appropriate to the effective participation of learners during the COVID period.

Finally on the last theme which highlights the disorder in the nature and the pattern of learning behaviour, which had been hugely altered due to the pandemic effect. The research brought to light that, at the pre-pandemic period, learners were mostly learning and moving in groups. However, this was not the case during the pandemic because the COVID protocols largely limited them from doing group learning.

This had negative consequences on learning process. Altogether, this is in sync with (United Nations Ghana, 2020 Shetty et al. 2020) on their conclusion that. The global school closure due to the COVID pandemic would have unintended consequences which may negatively affected learners with disability.

This finding confirms the theory underpinning this study which argues that the social structure in place has been the ultimate stumbling block in drawing back the gains of achieving equal education for all. But not the disability per se. This has been the case for so long a period because the socially construction view of treating person with visually impaired to be pitied and offered charity. Rather than looking at their needs as something to have integration in the design of policies and programmes to conform to their needs. Society instead expects learners with visual impairment to conform to the already rigid and stringent lay down procedures in order to fit to societal norms. By this, society denies the students with visual impairment the right to be equal and the privilege to be unique in enjoying their right and advantages.

4.7 Discussion of Results on Research Question Three

How have persons with visual impairment adapted to the learning demands brought by the COVID-19 pandemic?

Given the seemingly insurmountable challenges the world is faced with because of the COVID-19 crisis and knowing that “business as usual” may never return. More

significantly in Sub-Saharan Africa where according to 2017 World Bank report which indicates that most countries of the sub of the Sahara faced perennial fundamental challenges in the educational sector. Then it meant this pandemic now offers an opportunity to re-imagine current education systems through an equity lens. It gives the world the chance and the challenge to rethink the role, purpose, content, and delivery of formal education by understanding and responding to the experiences and needs of learners with visual impairment. Not only do the hard gains made in ensuring education for learners with visual impairment need to be protected. But now is the time to accelerate them to bridge the opportunity gap and reach out to them in a more inclusive manner. Therefore, this study painstakingly presents from the learners with visual impairments point of view a vivid picture of how some necessary adaptations and modifications have been latched onto during these difficult times. Where it appears what was once considered “normal” is far cry of its true meaning. Base on the responses obtain from the analysis of the participants encounter, it came to light that.

The school has not made any significant adaptations and modifications in the provision of educational content to PWVI in this era of the COVID-19 pandemic.

At the time students without any form of disability struggle to straddle the transition from pre COVID-19 teaching era to the present time and all others in between. Whether on physical and virtual space, it is perspicuous that persons with visual impairment would be the hardest hit. Since their mode of education always needs some kind of modification in order for them to be effective participants. However on the side of the research interviewees data revealed a stark opposition. Teaching handlers in the school indicated their awareness of this challenge but sadly showed lack of organized interventions to salvage this challenge.

These themes came to light.

The use of conference chat or call by learners, reliance on Braille books and finally pre-recorded book content from either colleagues or the radio and television.

The research participants indicated there was no teaching and learning support from other stakeholders during the period. From parents, teachers or other groups or individuals in the educational sector support did not come most especially at the school closure. This phenomenon had negative impact on learners because learners were left on their own at the period support was mostly needed.

As a result, learners demonstrated their ingenuity by developing other learning strategies to adjust to the new learning demands. This finding is at odds with (ADEA, 2020; UNESCO, 2020; World Bank, 2020; Liguori & Winkler, 2020) who maintain that there should be multi-sectorial approach in ensuring effective adaptation to the new learning demands. This should include schools, teachers, administrators, ministries, NGO's in the educational field and all those involve in education.

Conversely findings from the study are diametrically opposed to this conclusion. The findings obtain here support that of the World Bank Group, (2020) which suggest that, children with disabilities may need additional support, depending on their disability. To this end, it is anticipated that for students with visual impairment to be meaningful actors in the educational setup of the state more significantly at the COVID-19 era and any other learning crisis hereafter, there should be a paradigm shift from the previous policies of supporting the education of the visually impaired to a more modern one which could be seen as social justice driven to make persons with visual impairment part and parcel of this current educational goals the nation seeks to attain.

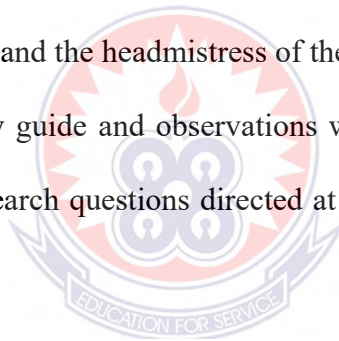
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

In this chapter, summary of the study in relation to the objectives and implications from the findings of the study and general conclusions are drawn. The recommendations for different stakeholders as well as suggestions for further research are also discussed in the chapter. The study is conducted on access to education in the midst of COVID-19 the perspective of persons with visual impairment in Akropong School for the Blind in the Eastern region of Ghana. The sample size involved in the case study is sixteen research participants compose of thirteen students with visual impairment, two teachers and the headmistress of the school.

Semi-structured interview guide and observations were employed as instruments for data gathering on the research questions directed at achieving the research objectives below:



To find out access to education during COVID-19 to persons with visual impairment, to explore the effects of COVID-19 on the education of persons with visual impairment and finally, to examine how persons with visual impairment have adapted to the learning demands in accessing education; during COVID-19.

5.1 Summary of Findings

How persons with visual impairment access education during COVID-19 pandemic. Findings revealed there is some access to education however it is limited to the radio and television platforms only with no access to internet learning programmes. According to the informants, there has been no unique mode or method of relaying educational content to their learning needs as a result of the COVID-19

pandemic. Which has made the dissemination much more complicated than ever before? In relation to any inactivity of the school to rope them into the new mode of delivering teaching content. Teaching and learning delivery in the midst of the COVID-19 pandemic does not suit their unique learning needs. A phenomenon which is affecting access to quality of accessing education.

From the study, access occurred in two broad areas. Which are the in-personal or the physical learning avenue through these forms.

- Whole class lecture method
- School library with less learner control and more instructors driven.
- School computer lab with restricted access to both equipment and duration.

Then the other is the remote/distancing learning avenue or the virtual learning space through these forms.

- Radio, television with no internet learning space.

The effects of the COVID-19 pandemic on the education of persons with visual impairment. Data from the study show that the learners with visual impairment captured under the study have been negatively affected by the COVID-19 protocol. According to thee informants, the physical and the social distancing protocols has had a challenge on their usual routines. Since the social distancing measures does not allow for close contact activities. They are affected by such measures on this score. Given to this difficulty, the research manifest through these forms that for all intends and purposes, the COVID-19 pandemic has affected the academic performance of learners.

- The school closure negatively affected learners learning efficiency.
- The pandemic affected the suitable delivery of learning content for learners.

- The pandemic restricted the effective use of TLM/R to concretised abstract learning concepts.
- Non-availability of specifically designed internet Learning Avenue led to learning lost.
- Pattern of learning behaviour negatively is altered due to the pandemic scare. On top of that the community libraries are not accessible due to unavailability of books and reading materials in disability friendly formats.

How have persons with visual impairment adapted to the learning demands brought by the COVID-19 pandemic. Findings obtained from research informants point to a phenomenon of absolute preparation and adaptation or modification to the new changes occasioned by the COVID-19 pandemic. Which made the sudden switch to remote learning adaptation a necessity more than a luxury. Given that the intersection of complex problematic adherence of the protocol measures as against the dissemination of educational content had made the adaptation and modification switch more urgent. However, from the informants, the school in particular had not made any switch to adapt to the new mode of teaching and learning to suit the order of the day. Besides, teaching and learning had also not in any way been modified solely for the academic purposes in spite of the changes which have altered the mode of delivering teaching content. To add to the sorry state of learners with visual impairment, no modifications have been allowed in the online learning platforms most significantly the internet-run programmes. With the radio and television learning avenues also fraught with accessibility adaptation challenges. According to the research participants, they adjusted their learning mode in these forms.

- Reliance on braille books
- The use of small group conference call or chat for discussion.

- Pre-recording of book content from colleagues, radio or the television programmes.

5.2 Conclusion

The success in schools in providing quality education for learners with special educational needs far more than less hinges on the managerial structures, the whole school organisational systems as well as the strategies properly laid down to handle students who require such needs. More importantly in the various classrooms. Since learners with special educational needs have a wide range of personal characteristics, learning behaviours, interests and other learning issues just like any other student. Then the instruction to them should be tailor plan, structured systematically to include the learning needs so as to cater for the inclusive aspect of educational content which is hugely essential towards them. Anything less than this would disengage their interest in learning which would defeat and frustrate the overall goal of achieving equal education for all. This is true to the fact that the education of the visually impaired is more significant since their elimination from any state or institutionally coordinated policies and programmes would erode the gains of attaining inclusive education for all. Therefore, there must be disability friendly policies design in order to achieve Ghana government objective which aims at attaining quality education for all. Though, evidence from the field exudes not all rosy picture of equitable access to education within the context of the conduct of this research. As there is a projection of farther confirmation of non-equity in access which goes ahead to corroborate fundamental bases of critical disability theory framework as a guiding theory of this research work. Which argues on the bases of the interlock of complex web of social constructionist lenses of viewing disability. On the bases that, the societal structure is rather disable and not the individual. For it is in concert with such idea that President

Thabo Mbeki maintains in a speech on conference on education for African renaissance in the twenty-first century on December 1999 that if the centuries ahead are going to be characterized as that of true African, for social and economic progress of the African people, the century of durable peace and sustained development in Africa, then the success of all undertakings and projects is dependent on the success of our comprehensive education systems. For nowhere in the world has sustained development been attained without a well-functioning system of education, without universal and sound primary education, without an effective higher education and research sector, without equality of educational opportunity. A clear confirmation of the need to ensure equal and inclusive education for all persons bereft of all seemingly avoidable hindrances.

5.3 Recommendations

The study recommends base on the finding which revealed non-suitability of delivering learning content that, there must be a coordinated design by the school to offer persons with visual impairment educational content which is diversified and inclusive enough now and in future emergency.

Again, based on the non-availability to insufficient TLM/R to improve learner performance and experience in learning as the finding indicates, the study advocates that the government should make available all appropriate assistive learning devices for the needs of persons with visual impairment.

Also, the study find out that learners find it difficult to access learning material on internet platforms therefore, it is suggested that government and the school should provide access and training related content on electronic learning avenues in order to accelerate the learning needs of persons with visual impairment.

Further, it came out of the study that the style of imparting learning content to learners was not specifically tailored towards the needs of learners, in view of this the study recommends that the teaching style and mode of delivery of teachers handling persons with visual impairment should be modified appropriately to make learning accessible to reach.

Since the study brought to light that learners are not adequately resourced in terms of personal assistive devices to support their learning needs, it is advocated that the school and the special education division should be active in resourcing persons with visual impairment in their learning processes which goes beyond the school learning environment to the home learning environment.

Moreover, both within school and outside school learning centres such as both the community and the school libraries should be made accessible to persons with visual impairment for their efficient involvement.

Then finally, the study recommends that any further online learning platform design by either the government or any other body in the educational sector should be disability friendly to capture the learning needs of persons with visual impairment so they could actively participate in such platforms.

5.4 Recommendations for Further Research

The following topics have been recommended for further research by other researchers who would like to venture in inclusive education for persons with visual impairment:

First, challenges teachers handling learners with visual impairment encountered during COVID pandemic.

Second, learning difficulties learners with Visual Impairment faced during COVID pandemic in inclusive and tertiary educational institutions in Ghana.

Third, parental involvement in the education of persons with visual impairment during COVID pandemic.

Four, governmental level of involvement in the provision of education to persons with visual impairment during the COVID pandemic.

Then finally, the role of assistive devices in the education of persons with visual impairment in the COVID pandemic.



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