INFLUENCE OF SCHOOL-BASED CHALLENGES ON THE INCLUSION OF CHILDREN WITH PHYSICAL IMPAIRMENTS IN PUBLIC PRIMARY EDUCATION IN KURIA WEST SUB-COUNTY IN MIGORI COUNTY, KENYA

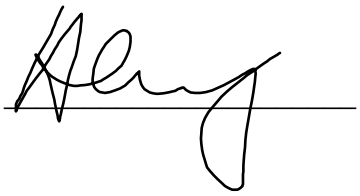
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A Thesis Submitted In Partial Fulfilment of the Requirements for the Award of the Degree of Master of Education in the Department of Education, School of Humanities and Social Sciences of Africa Nazarene University

June 2022

DECLARATION

I declare that this document and the research it describes are my original work and that they have not been presented in any other university for academic work.

Signed:  **Date**: 24/06/2022

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This research proposal was prepared under our supervision and is submitted with our approval as University supervisors.

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DEDICATION

To my husband Charles and our children; Emmah, Yeddah, Lidiah, Cornelius and Richard. God bless us.

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I acknowledge those who helped me in various ways when drafting this research proposal. My gratitude goes to my supervisors Prof. Edward Bantu and Dr. Boniface Njuguna Mwangi for the invaluable contributions from time to time to improve the quality of this proposal. I also wish to thank them for all the reference materials that I received and for taking time to guide me through this work at different stages of its development despite the tight schedule.

I also wish to express a special word of thanks to my parents, and my children for the great support directly and indirectly. Special thanks also go to my lecturers who taught me coursework. Collectively, your expertise and efforts made an invaluable contribution to this work. Finally for any errors of omission and commission and misrepresentation that may be found in this proposal, I take responsibility.

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ABSTRACT

An estimated 10% of Kenyan children who have attained the school going age have some form of disability. About 16% of these children are out of school while another 40% are isolated in special primary and secondary schools. Although about 44% get to attend regular primary and secondary schools, they are not appropriately integrated into these schools. It is in this light that this study sought to examine school-based challenges facing the inclusion of children with physical impairment (CWPI) in public primary education in Kuria West Sub-County. The specific objectives of the study were to examine human capital challenges, teaching and learning resources challenges, physical environment challenges, and social environment challenges facing the inclusion of CWPI in public primary schools in Kuria West. The study was guided by Vygotsky Social Constructionist Theory. It utilized the descriptive research design where data was collected from a sample of 27 head teachers and 81 teachers from 27 schools. These schools were selected from the target population of 87 public primary schools in the study area using the stratified random sampling methods. Questionnaires were used to collect quantitative data from among teachers while interviews were used to collect qualitative data from head teachers of the schools. An observation checklist was used to collaborate the information provided in the questionnaires and interviews. The validity of the instruments was examined by discussing the questions with university supervisors at the Department of Education, Africa Nazarene University. Reliability of the instrument was examined using the Cronbach Alpha method at the 0.7 threshold. Data collected through the questionnaire was analysed using descriptive while hypotheses were tested using the multiple regression method at the 0.05 level of significance Data collected through interviews was analysed using the thematic technique while descriptive statistics will be used to process the data collected using observation checklists. Results established that there are low levels of inclusion of CWPI in the public primary schools in terms of enrolment, school attendance, involvement of CWPI in co-curriculum activities, and grade transition. Inadequacy of teaching and learning resource was found to be the most significant barrier to the inclusion of CWPI (β= -0.468, t = -3.339, p <.05) followed by social environment challenges (β= -0.442, t = -2.839, p <.05) and human capital challenges (β= -0.332, t = -2.655, p < .05). However, though the challenges emanating from physical environment had a negative influence on CWPI inclusion, the influence was not statistically significant (β = - .107, t = - .982, p = .057). Based on the findings, the study recommends the Ministry of Education to increase capitation for CWPI, development of alternative sources of generating revenues needed to acquire teaching and learning resources, development of strategies aimed at addressing negative stereotypes and prejudices towards CWPI, development of programmes aimed at training existing teachers on special education needs education, and incorporation of special need education training in the curriculum of teaching colleges and universities.

LIST OF ABBREVIATIONS AND ACRONYMS

CEC	Council for Exceptional Children
CWD	Children with Disabilities
DFID	Department for International Development
EARC	Educational Assessment and Resource Centre
EFA	Education for All
FPE	Free Primary Education
ICT	Information and Communication Technology
IPP	Inclusive Practice Project
MOEST	Ministry of Education, Science and Technology
PGDE	Post Graduate Diploma of Education
PLFS	Polish Labour Force Survey
SEN	Special Educational Needs
SOE	School of Education
SSHAK	Special School Heads Association of Kenya
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children Fund
WHO	World Health Organization
CWPI	Children with Physical Impairment

OPERATIONAL DEFINITION OF TERMS

CWPI: Children with physical disabilities such as visual impairment, hearing impairment, cerebral palsy, spina bifida, and mascular dystrophies.

Human Capital Challenges: Challenges emanating from the skills, knowledge, experiences, habits, and personalities of the school staffs.

Inclusion of CWPI: ` This is the state of CWPI learning from a common environment adapted for all abilities.

Physical Environment Challenges: Difficulties brought about by the schools tangible elements such as landscape, buildings, lighting, and other infrastructure.

School-based Challenges: Difficulties brought about by factors that are within the control of the schools.

Social Environment Challenges: Difficulties emanating from the collective and cultural setting within which the school community functions.

Teaching and Learning Resources: These are tools and materials that help teachers to teach and pupils to learn.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter outlines the nature of the study issue, defines and explains the problem that the study seeks to address. The chapter also presents the purpose, the objectives, the hypotheses, limitations and the delimitations of the study. Further, the chapter presents the significance of the study, guiding assumptions, theoretical framework and the conceptual framework.

1.2 Background to the Study

Inclusive education is an educational approach recognizing and responding to the diverse educational needs of children. Under inclusive education, children's educational needs are addressed through accommodating different approaches and pace of learning among learners and safeguarding quality while delivering the applicable curricula composed of appropriate structural set-up, modes of instruction, resources and cooperation with their communities. United Nations Educational, Scientific and Cultural Organization (UNESCO) advocates for caring for the diverse needs by using different styles and rates of learning (UNESCO, 2017). Goals of learning should embrace inclusive education as opposed to inclusion in Education.

Children with special needs and challenges, require education like every other child. In inclusive education, children with disabilities (CWD) should be treated the same as those without disability are treated. Their rights and talents should be natured and their rights respected. Article 3 of the World Declaration on Education for All, and the Dakar Framework for Action to meet Basic Learning Needs stress that the educational needs of disabled children must be accorded special attention (UNICEF, 2007). The

Sustainable Development Agenda has also made the provision of equal access to education for all persons and provision of more equitable and inclusive society a priority for all nations (UNESCO, 2017). According to Walker & Donaldson (2010) the goal of inclusion is to integrate all students in a given educational community into an educational system in accordance to their individuality. The challenge arises regarding how best to provide such education (Mwaura, 2010).

According to Akinyi, Nyangia & Orodho (2015) ten percent of the world population is made up of disabled persons of whom 85 percent are below 15 years and live in developing countries. A lot of progress has been made towards ensuring that these persons are equitably incorporated in all areas of life including education. Despite the tremendous progress made over the last two decades, several barriers still limit full inclusion of CWD in education (UNESCO, 2017). The expansion of both primary and secondary education has faced momentous obstacles, equity being one of them, especially for learners with special needs and disabilities. The national education systems in many countries have inadequate systems and facilities for learners (MOEST, 2009).

The Salamanca Declaration of 1994 was the basis that brought the practice of inclusive education to the spotlight. Countries were encouraged to align the education policies with this new perspective that reinforces the right to education for every child (Wachianga, Omoke, & Ajowi, 2015). United Nations Children Fund (UNICEF) (2013) posits that CWD can only experience noteworthy changes in their lives when there is an attitude change in the society. Limited comprehension of the causes and nature of impairment, the inconspicuousness of CWD, and the gross undervaluation of

the capabilities and potentials of CWD are among the barriers that interact to silence and marginalize CWD.

In most parts of the globe, CWD and learning difficulties experience marginalization within the education system or are totally left out of schools. Providing education to CWD in Sub-Saharan Africa has not been easy. Children with severe disability are the most affected because they are left out of the mainstream education set-up altogether (Sarton & Smith, 2018). In circumstance where these children get the opportunity to go to school, they are enrolled after they have attained the age of 10 years and thus mature into adulthood before completing primary education. The exclusion problem is more pronounced in rural areas where most schools lack facilities to cater for CWD. The Republic of Kenya recognized education as a children's basic right (Ohba & Malenya, 2020). Under inclusive education, learners with special requirements, regardless of age and disability, are integrated in the regular schools to learn with regular pupils.

Limaye (2016) emphasized that the concept of inclusive education refers to the provision of universal education to CWD in the regular school set-up. This concept is become emphasized in both industrialized and developing nations. However, triumph and disappointments have been observed in all of these countries. Various challenges have been encountered particularly in the developing countries, which are constrained by limited economic resources. In these countries, inclusion in education has been hampered by the shortage of schools, competent staffs, facilities, learning materials and support from stakeholders (Mpu & Adu, 2021).

Sarton and Smith (2018) contended that realization education for all requires extra monetary support from governments and development partners to a tune of more than

US$ 8 billion annually. Banks and Zuurmond (2015) established that, in Malawi, the obstacles to inclusive learning include: cultural prejudices that cause partisan handling and provision of resources and opportunities to male children and those without special needs; inadequate access to special educational needs (SEN) services and support; difficult physical terrain; distance to school; verbal and physical abuse of CWD; and an education set-up that promotes negative attitudes towards learners with SEN.

In Kenya, Mwoma (2017) noted that, for years, children with SEN have been enrolled to special schools or special units that are attached to regular schools. The special schools or units only cater for children with certain impairments such as hearing, mental, visual, and physical challenges. Children with other special needs such as the psychologically different, the gifted and talented, those with specific learning difficulties, the multiple handicapped, and those with communication disorders were left out (Moyi, 2017).

The Kenyan government has committed itself to provision of standard inclusive education as a key pillar to the realization of the Vision 2030 development strategy (Ireri et al., 2020). Regular schools have embraced inclusive learning as a means of increasing access and participation of CWD in regular schools as opposed to setting up special schools. However, even with the onset of Free Primary Education (FPE) in January 2003 and the development of the inclusive education policy, it is still a great challenge to effectively address the issue of including all children living with disabilities in the inclusive education program (Moyi, 2017)).

According to Mwoma (2017), the aim of inclusive education is to facilitate the enrolment of 75 per cent of CWD in Kenya who were not attending school. To improve

inclusion to the desired level, the challenges that bar children living with disabilities from accessing education need to be established. It is in this light that the proposed study seeks to examine management challenges facing the inclusion of children with physical impairment (CWPI) in primary education in the context of Kuria West Sub-County

1.3 Statement of the Problem

The National Special Needs Education Survey estimated that 10 percent of Kenyans aged 21 and below are living with disabilities (Wanzala, 2016). This proportion translates to about 1.9 million persons of school going age living with disability. The survey found that disability among children is highly prevalence in rural areas with these areas accounting for 60% of all cases. Kenya recognizes the importance of inclusive education in its national education policy. However, there is still a major gap between policies and outcomes as indicated by statistics in education of children with special needs. A survey by Voluntary Services Overseas found that 16% of CWD were out of school in 2014 (Taylor, 2016). The Special School Heads Association of Kenya (SSHAK) (2016) estimates that there over 100,000 CWD who are out of school in Kenya.

SSHAK (2016) also estimates the number these children who are in special schools to be around 45,000. While the special schools provide these children with the resources they need for learning, they tend to isolate them from the mainstream education system. Although there are a good number of CWD attending regular schools, Villamero (2017) noted that these children have been placed in these schools without adequate systems and accommodation to support their learning. Villamero (2017) terms the placement of CWD into regular schools without the needed support as integration rather than

inclusion. A nationally representative survey by the Kenya National Examination Council (2020) also found that 54.4% of primary schools did not have teachers who are trained to support learners with special needs while 36.3% had no ramps, and 50.8% had not adapted infrastructure in their classes.

In Kuria West Sub-County, only 65% of the regular public primary schools had implemented inclusive education and not all the children living with disability were in school (MOEST, 2009). Studies conducted in other parts of the country suggests that school-based factors are largely responsible for the below par inclusion of SEN children in primary schools. For instance, Kurui (2014) found the inclusion of SEN children in primary schools in Langata Sub-County was hindered by inadequate teacher training and teaching and learning facilities. Janmohamed (2012) also found that the inclusion of SEN children in Parklands Sub-County was hampered by scarcity of teaching and learning resources, lack of training in special education among teachers required to handle students with special needs, and lack of basic necessity. The study recommended that similar studies be replicated in other regions to engender a clearer depiction of the challenges hindering inclusive education programmes in public primary schools. Unfortunately, there is no evidence that a systematic study has so far been done to delve into school-based challenges in the execution of inclusive education in public primary school in Kuria West Sub-County. This study sought to fill this gap.

1.4 Purpose of the Study

The purpose of this study was to determine the influence of school-based challenges on the inclusion of children with physical impairments (CWPI) in public primary Education in Kuria West Sub-County.

1.5 Objectives of the Study

The study was guided by the following objectives:

i. Examine the influence of human capital challenges on inclusion of children with physical impairment in public primary schools in Kuria West.

ii. Investigate the influence of teaching and learning resource challenges on inclusion of children with physical impairment in public primary schools in Kuria West.

iii. Assess the influence of physical environment challenges on inclusion of children with physical impairment in public primary schools in Kuria West.

iv. Interrogate the influence of social environment challenges on inclusion of children with physical impairment in public primary schools in Kuria West.

1.6 Research Hypotheses

The following hypotheses were tested:

i. H_0: Human-capital challenges have no significant influence on the inclusion of children with physical impairment in public primary schools in Kuria West.

ii. H_0: Teaching and learning resources challenges have no significant influence on the inclusion of children with physical impairment in public primary schools in Kuria West.

iii. H_0: Physical-environment challenges have no significant influence on the inclusion of children with physical impairment in public primary schools in Kuria West.

iv. H_0: Social-environment challenges have no significant influence on the inclusion of children with physical impairment in public primary schools in Kuria West.

1.7 Significance of the Study

Significance of the study refers to the contribution of the study (McKenney & Reeves, 2013). This study is of assistance to a number of stakeholders. The first stakeholder group that might benefit from the study are the CWPI in Kuria West Sub-County and other parts of the country. This study has identified school-based challenges that hinder the inclusion of these children in primary education and made appropriate recommendation. If implemented, the recommendations will improve the inclusion of CWPI not only within the study area but across the country.

The study is also of benefit to the government as it has highlighted school-based challenges that have a notable bearing on the implementation of inclusive education in primary education. This knowledge is useful in informing future policies aimed at improving the inclusion of CWPI in education. Subsequently this would advance the realization of the national goals of education and the Vision 2030 economic blueprint in the Kenyan setting and globally, the SDGs and EFA Goals.

In addition, the study is of benefit to scholars and researchers in the field of education particularly special needs education. The study has expanded the existing scholarly dialogue regarding challenges facing the operationalization of inclusive education particularly in developing countries. The study has also made recommendations for future studies thus supporting future research on this subject.

1.8 Scope of the Study

The term scope refers the geographic area within which the study was conducted (Andrews, Borg, & England, 2012). This study was limited to public primary schools located in Kuria West Sub-County in Migori County. This location was selected

because evidence suggests that there is low inclusion of CWPI in public primary education. According to MOEST (2009), only 65% of the regular public primary schools had implemented inclusive education and not all the children living with disability were in school.

1.9 Delimitations of the Study

Delimitations of the study refer to things that the research project covers (McKenney & Reeves, 2013). It defines the outer limits or boundaries of the research projects. This study examined challenges facing the inclusion of CWPI in primary education. It did not look at challenges involved in inclusion of children with other forms of impairment or other education levels such as secondary schools. This study focused on challenges that are within the control of the schools' control (school-based factors). This is because studies conducted in other areas found that school-based factors are largely responsible for the difficulties experienced in the inclusion of children with special needs (Kurui, 2014; Janmohamed, 2012). Although there are quite a number of school-based challenges, the study was limited to four categories of challenges: human capital challenges, teaching and learning resources challenges, challenges associated with the school physical environment, as well as, those associated with the schools social environment.

1.10 Limitations of the Study

Limitations are conditions or constraints that are outside the control of the researcher that restrict the methodology or conclusions of the study (McKenney & Reeves, 2013). Several limitations were encountered in this study. The first entailed difficulty in obtaining objective data on issues such as teachers training and skills. As a result, the study was compelled to rely on the accounts provided by the respondents. This might

have subjected the study to bias. The study tried to minimize the effect of this limitation by assuring respondents the highest level of anonymity and privacy in order to encourage truth telling. The limitation was also addressed by using multiple sources of data including questionnaires, interviews, and observation checklists.

The second limitation originates from the cross-sectional nature of the study. In the current study, data was collected at only a single point in time. This design only provided a snapshot of the current situation regarding school-based challenges facing inclusion of CWPI in primary education (Sedgwick, 2014). The cross-sectional approach was however essential in this study due to time and resource constraints. It was useful as the study sought to examine different categories of challenges that would be difficult to follow-up in a longitudinal design.

1.11 Assumptions of the Study

Assumptions are things that the study accepts to be true although there is no proof (McKenney & Reeves, 2013). They are a critical part of research foundation. The current study was founded on several assumptions. The first assumption was that participants answered the survey questions truthfully. Since this study was largely dependent on accounts provided by participants, the honesty of these participants was critical to the validity of the study.

The second assumption is that the sample that was selected was a good representation of the target population. The representativeness of the sample is critical in ensuring that the findings of the study reflect the current situation within the study population. This assumption was not unfounded as various measures were taken to enhance the

representativeness of the sample including determining an appropriate sample size and using appropriate sampling strategies.

1.12 Theoretical Framework

According to Maxwell & Mittapalli (2010), a theoretical framework refers to a set of concepts and ideas and the proposed relationships among them that is intended to capture or model a real phenomenon. This study is guided by the theory on dysontogenesis also known as the social constructionist view on disability (Vygotsky, 1931). According to this theory, an optimistic resource-oriented attitude means that a constructive societal outlook on CWD should give precedence to the reinforcement and empowerment of distinct skills in the children instead of stressing on the flaws of the children as is the tradition.

Vygotsky`s theoretical underpinning regarding the education of children with SEN emphasizes the need to integrate these children in typical educational setup to avoid what he refers to as secondary disability (Gindis, 2003). Secondary disability is the incapacitation that CWD experience as results of the failure to fit in their environment rather than due to their impairment. Vygotsky`s theory lays concern on the characteristics and peculiarities regarding the psychological development of the infant. It also lays emphasis on zones of proximal development, developmental education and the socio-cultural origins of disability. Further, the theory applies a flexible approach to disability and emphasizes the significance of the social context of development (Rodina 2007).

There are various approaches and perspectives for nurturing, educating and evaluating CWD. The developmental approach by Vygotsky is typified by the concepts of zones

of proximal development; social context of development; leading activity and age-specific psychological novel formations; the flexible and socio-cultural perspective of disability; and the resource oriented approach to disability. Vygotsky was basically opposed to quantitative diagnostics of disability. He introduced the understanding of handicaps as a dynamic developmental process as opposed to it being a static condition. Vygotsky considered disability as a social anomaly without ignoring its biological aspect. The social anomaly arises from children's dynamic collective and environmental relations that cause disturbances in their social behaviour (Vygotsky, 1931).

The considerations of Vygotsky led to the separation of the concept of disability into primary disability, secondary disability and tertiary disability (Rodina 2007). While primary disability focused on organic impairment, secondary and tertiary disability focused on the cultural alterations of socially constructed, higher cognitive functions. This meant defining disability basing on the primary aspect was ignoring the developmental processes.

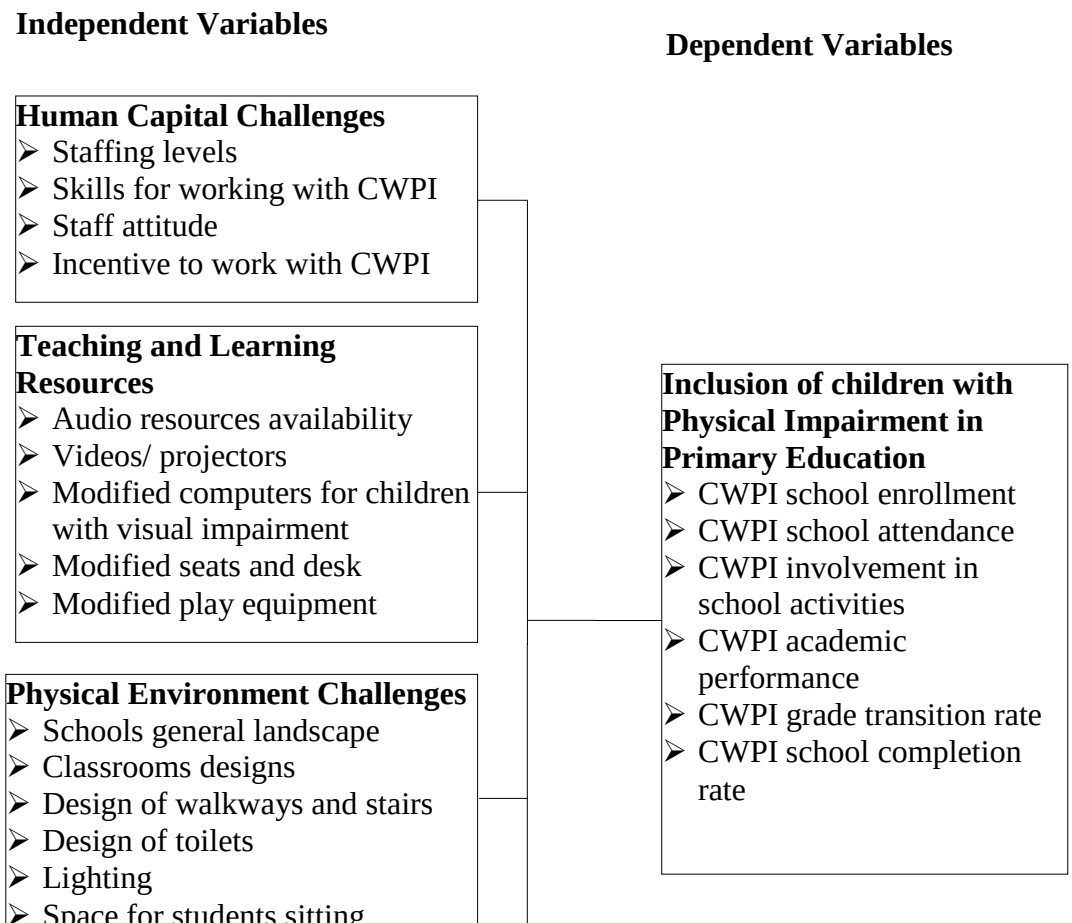
In Vygotsky's dynamic assessment of disability, he argues that disability is too intricate to be summarized as the sum of its symptoms. Primary disorders such as impairments in vision, hearing, speech and psychomotor abilities lead to the exclusion of the child from the traditional, communal, social and educational environments, which leads to secondary or socio-cultural disability. This situation considerably affects the education of children with SEN. Vygotsky emphasized the adoption of the dynamic, socio-cultural perspective of disability as the framework for inclusive education. For Vygotsky, a disorder is not a tragedy. One is psychologically or physically insufficient as determined by the social setting. Vygotsky laid sharp criticism against parents, teachers and psychologists for their pathological manner of addressing CWD. He

argued that parents and most of the teachers pitied the CWD and resorted to helping them. This view of disabled children as helpless hinders the zone of proximal development and becomes the cause of secondary disability (Vygotsky, 1931).

Vygotsky's theory was relevant to the study because it clearly shows that disability is more than just the physical or biological aspect of it. Challenges to the inclusion of children with disability emerge by not managing those living with disabilities in society. The education system has to be on the forefront in ensuring that those with disabilities are blended into society without the "helping" attitude. Further, the theory has identified the school environment, home environment, peers, family and the society at large as the determinants of the secondary disability of the child living with disability.

1.12 Conceptual Framework

A Conceptual Framework is an imagined model showing the association between the independent variables and the response variable under study (Mugenda & Mugenda, 2009). Figure 1.1 is the conceptual framework of variables in this study.



As shown in Figure 1.1, the dependent variable is inclusion of CWPI in public primary education. This was measured by the following indicators: school enrolment, school attendance, involvement in school activities including physical activities, academic performance, transition rate (from one grade to the next), and completion rate.

The study has four independent variables. These are challenges arising from human capital, challenges arising from teaching and learning resources, challenges arising from the physical environment of the schools, and challenges arising from the schools social environment. Regarding human capital challenges, the study examined issues such as staffing levels within the school (both teaching and nonteaching staffs), staff skills related to special education needs, staff attitude towards CWPI, cooperation among staff in meeting the needs of CWPI, and staff incentive to work with CWPI.

Concerning teaching and learning resources, challenges focused on issues such as availability and adequacy of audio resources, videos/ projectors, modified computers for pupils with physical impairment, modified desks and seats, hearing assistance technologies, modified playing equipment, braille and curricular adapted to the needs

of CWPI. For the school physical environment, the study focused on various issues including the general landscape of the school, design of classrooms, design of walkways and stairs, designs of toilets, space for students sitting, and lighting in classes and other areas.

Relating to school social environment challenges, the study examined issues such as school routines, CWPI relations with other students, stereotypes and prejudices by other students, and school policies related to CWPI. As shown in Figure 1.1, the four categories of challenges contribute to and determine the level of inclusion of CWPI in public primary schools in Kuria West Sub-County.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature related to the current study. The chapter discusses the concept of inclusive education and reviews past studies regarding school-based factors determining the success of inclusive education. The chapter also identifies the research gaps.

2.2 The Concept of Inclusive Education

United Nations International Children's Emergency Fund (UNICEF) (2007) defines inclusive education as an education system designed to address the varied needs of all learners by decreasing obstacles to and obstacles within the learning environment. Inclusive education means a CWD going to the right class in the local school that has individually customized support. Inclusive education is a mechanism of reinforcing the education system so as to encompass all learners with their varied abilities. According to Singh (2016), the principle requires that governments give the highest priority to inclusive learning as an issue of policy. The principle is fully backed by the United Nation's Standard Rules on Equalization of Opportunities for Person with Disability Proclaiming Participation and equality for all.

At a world conference held in Jometin in Thailand in 1990, it was pronounced that each individual, whether child, youth or adult, should have access to educational opportunities that would, in turn, lead to the realization of their elementary learning needs (UNESCO, 2017). The inclusion philosophy and learning approach widens academic space and opportunities for all individuals. The philosophy allows students

to partake in the full breadth of learning activities including day care, extra-curricular activities, arts, recreational activities, music, and afterschool care.

According to the MOEST (2014), Kenya has fully embraced inclusive education. Kenya has made it policy to avail high-standard, supported education to all citizens in a way different from the traditional approach of offering education to individuals with SEN. Education has been made a legally recognized fundamental right to every citizen. The education is provided freely to children in public primary and secondary schools in Kenya. Despite this achievement, there are a significant number of CWD who are yet to access primary education. A survey by Voluntary Services Overseas found that 16% of CWD translating to about 100,000 children were out of school in 2014 (Taylor, 2016). Another 45,000 are isolated in about 300 special schools around the country (SSHAK, 2016). Villamero (2017) also found that even the few CWD who have gotten the opportunity to attend regular schools have not been adequately included as they have been placed in these schools without adequate support. The current study sought to pinpoint the specific challenges that hamper the inclusion of CWPI in public primary schools.

2.3 Human Capital Challenges in Inclusive Education

The adequacy and quality of human resources is one of the vital elements that determine the quality of education that a child receives (UNESCO, 2016). Successful inclusion of CWD requires adequate staffing of not just teachers but also specialists and caregivers. These staff should have requisite training in dealing with CWD. A survey by the Department for International Development (DFID) (2016), found that inadequate training of staffs working with CWD and low incentives for these workers to do so was

one of the main barriers hampering the inclusion of CWD in the UK education system. Low staffing level was also found to be a major hindrance to the inclusion of CWD.

The teacher is the most critical human resource determinant of inclusion. Creasy (2015) identifies the teacher as the most vital component in any educational setup. The teacher implements the educational program at every stage. The extent and quality of students' achievement in the process are shaped predominantly by instructor's proficiency, warmth and motivation. Teacher education encompasses the teaching skills, the didactic theory and the specialised skills that a teacher possesses (DFID, 2016). Teaching skills encompass the acquisition and application of diverse methods, procedures, and approaches that enables an instructor to design lessons, deliver instructions, reinforce acquisition of knowledge, and carry out assessment.

Studies have shown that the education of the teacher contributes to the performance of inclusive education. A study by Woodcock (2012) in Australia sought to establish whether teachers' knowledge and views regarding inclusive education influenced their ability to manage the new educational dispensation. The study was a survey that entailed gathering of data from pre-service teachers enrolled at an Australian university. The study established that incorporation of the concept of inclusive education in the curriculum for teachers plays a vital part in preparing classroom instructors for inclusive education in the field. This indicates that a teacher's understanding of inclusive education contributes to the success of the program.

O'Neill, Bourke & Kearney (2009) conducted a study to establish how teachers' day-to-day participation influenced inclusive education. The study was conducted in New Zealand. The study deployed a longitudinal study design and interrogated the

experience of formulating an integrated ‘inclusive education' curriculum in a preliminary teacher education program rather than the teaching done in colleges. The study established that the skills teachers used in the day-to-day management of inclusive education contributed to its success.

Another human capital aspect that has been associated with the inclusion of CWD is the attitude of staff. Onoshakpokaiye (2011) defined attitude as a mental or subjective preparation for action. Attitude directs the external and observable aspects of human conduct and beliefs. It determines what one sees, hears, thinks and does. A study by Callan (2013) was conducted to the inclusiveness of a primary school towards learners with SEN. The study was a case study conducted at Rose Hill Primary School in Dublin, South Africa. South Africa had passed a policy that made education inclusive to all including children with SEN in mainstream schools. The study established that the attitudes of educators and other members of the school community contributed to the success of making education inclusive.

In a study by Dapudong (2014), the attitude towards and knowledge about inclusive learning of international school teachers' was investigated. Specifically, the study focused on the Eastern Seaboard region of Thailand and was done in the 2013/2014 year. The study used survey methods. The study established that teacher attitude towards children with special need affected their education. The respondents had moderate knowledge on inclusive education. The study established the need to provide more SEN training.

In another study, Dukmak (2013) interrogated the attitudes of teaches in regular classroom towards including CWD in the regular classroom. Other than attitude, issues

like gender, age and years of teaching experience were considered. The study was a survey in which different statistical analyses such as Analysis of Variance and correlations were used. The findings revealed that male teachers showed a more positive attitude towards educational inclusion as compared to the female teachers. Teachers' years of experience contributed to their outlook towards educational inclusion with more experienced teachers having less positive attitudes. The attitude affected the education of the children with SEN.

The philosophy of inclusive learning demands that educators should accept the mandate of building school climates that make all children feel the belong (DFID, 2016). Educators are vital in creating this climate because they assume a fundamental part in stimulating involvement and decreasing underachievement, mainly among children perceived to have learning difficulties. Halfon (2013) recommended that a viable means of surmounting the obstacles involved in the inclusion of CWD is to re-evaluate the responsibilities, duties and self-concept of teachers. Schools should identify novel strategies for making teachers inclusive to children with SEN who might have found it difficult to fully participate in learning in the past.

In Kenya, Mwama (2017) observed that the effective delivery of special education is hampered by the absence of adequate skilled and specialized staff for assessing, placing, and managing children with disabilities. This author also noted that there was only one in-service institution for training teachers on how to work with children with SEN. However, this author focused on challenges experienced in the provision of education to children with special need in general rather the inclusion of CWPI in public primary school. Education can be provided to children with SEN in a less inclusive environment rendering it ineffective. The current study went beyond the

assessment of the provision of education to CWPI and paid attention to the environment in which education services are provided including the physical and social environment.

2.4 Teaching and Learning Resources Challenges in Inclusive Education

Teaching and learning resources are tools and material that help teachers to teach and pupils to learn. According to Busljeta (2013), education cannot take place without certain tools and materials such as textbooks, chalks, seats, desks, and stationaries among others. There are also resources that enable teachers to enhance the learning process by making it more interesting and instructive. Such resources include videos, audio recordings, newspapers, computers, and the internet. Studies such as Makori and Onderi (2014) have found that teaching and learning resources have a significant implication on students' achievement. Teaching and learning resources also determine the level of inclusion of CWD.

Apart from ordinary teaching and learning resources such as textbooks and chalks, the level of inclusion of CWD is also dependent on availability of resources that enables these children to overcome learning obstacles (Oliva, 2016). Examples of such resources include braille texts, modified seats and desks, modified computers, and modified curriculum. The importance of teaching and learning resources to the inclusion of CWD is documented in the study by Bizimana and Orodho (2014) that engaged secondary schools students, teachers, and administrators in Huye District in Rwanda. Results showed that there was a substantial link between the quality of teaching and learning resources and the level of inclusion of CWD within the schools.

In a study by Okongo, Ngao, Rop, & Nyongesa (2015) the aim was to establish whether resources used to teach and support learning shaped the inclusiveness of the learning

experience in pre-school centres in Nyamira North sub-county. A survey strategy was used involving collecting data from head teachers, teachers, and guardians in 40 pre-school centres and 12 Education Officers. Findings revealed that the supply of teaching and learning resources at pre-school centres was inadequate, which hindered the implementation of inclusive education. These findings however may not reflect the current situation with regarding to inclusion of CWPI in public primary education as pre-schools and primary schools in Kenya have different dynamics. For instance, public primary schools are managed by the national government while preschools fall under the purview of county governments. Findings by Okongo et al. (2015) may not reflect the geographical differences that exist between Nyamira North sub-county and Kuria West.

In another study, Kosgei (2013) investigated the factors that influenced enlistment of CWD in primary schools in Nandi South district. The study was a descriptive survey and entailed gathering information from a sample of 306 class teachers and 44 head teachers using questionnaires. Descriptive statistics were used to summarize and process the data. The findings show that availability of resources had a strong influence on the enlistment of CWD in all-inclusive schools. This study however focused on enrolment of CWD rather than inclusion, which is the goal of the current study. In the current study, enrolment is viewed as only one of the indicators of inclusion.

The study by Nthia (2009) aimed at analysing the teaching/learning resources provided for inclusive education and how they affected the inclusiveness of learning for children with SEN in public primary schools in Embu East Sub-County, Kenya. A descriptive survey approach was utilized and data collected from 108 teachers and 12 head teachers selected using interval sampling method from the population of 70 public primary

schools in the area. Questionnaires and observation checklist were used to gather data. The findings indicated that schools were not well equipped with teaching/learning resources making it difficult to mainstream special education in regular primary schools. Although this study focused on inclusion of CWD in primary education, it was conducted in a location that is relatively different from Kuria West Sub-County in terms of economic, sociocultural, and physical condition. Consequently, findings may not reflect the existing situation in Kuria West hence the need for the current study.

2.5 Physical Environment Challenges in Inclusive Education

According to Akomolafe & Adesua (2016), physical environment refer to the tangible elements in the school. These elements include the classrooms, toilets, staffrooms, offices, library, dormitories, laboratories and other structures that contribute to learning in a school. The physical environment is a critical determinant of effective learning and academic performance. Asiabaka (2008) posited that physical facilities play a key role in the realization of the objectives of education by satisfying the emotional and physical needs of learners, educators, and non-teaching staff. These are the hygiene factors without which effective learning cannot take place. Physical needs are satisfied by safe structures, adequate sanitation, balanced visual environments, ample accommodations for work and play and a pleasing thermal environment.

The physical environment also plays a part in determining the level of inclusion of CWD. According to Degenhardt and Schroeder (2016), schools can only realize true inclusion when physical barriers that hinder the movement of CWD are removed. The school key infrastructure such as classrooms, libraries, staffroom, administration offices, canteen, dining halls, and toilets should be designed in way that makes them accessible to CWPI. Walkways should be designed with prior considerations of users

of walking sticks, walking aids, and wheel chairs (UNICEF, 2014). The width of doorways, corridors, and walkways should also accommodate the needs of learners with physical impairment. Playgrounds and other recreational areas should be designed in a way that considers the needs of CWD. The lighting in classrooms and other areas should consider the need of children with visual impairment.

The influence of physical environment on inclusion of CWD was captured in the study by Baptiste, Malachie, and Struthers (2013) that sought to determine physical environment factors that barred CWD from two community based rehabilitation centres in Rwanda from attending schools. Results showed that CWD found it difficult to attend to school because the roads were not well maintained, the schools had staircases, children were unable to play in the field, and there were no special seats in the schools. However, the findings of this study may not reflect the situation in Kenyan primary schools due to contextual differences between Kenya and Rwanda.

In her study examining factors that determine inclusion of pupils with SEN in public primary schools in Kisumu Municipality, Owuor (2014) found that most of the institutions did not have assistive devices such as ramps, adoptable toilets, and wide doors limiting the inclusion of children with disability. This study however only relied on descriptive statistics such as frequencies and percentage thus they were not able to statistically test the influence of physical environment on the level of inclusion of CWD. The current study applied the inferential statistics in addition to descriptive statistics in data analysis leading to more robust results.

2.6 Social Environment Challenges in Inclusive Education

The social environment refers to the collective and cultural setting in which the school community functions. This environment encompasses elements such as schools routines, school culture, school policies, attitudes and beliefs of other students regarding CWD, and how other students interact within CWD. According to DFID (2016), the social environment presents the greatest barrier to the inclusion of CWD. In most schools, CWD do not get selected into sports teams, are excluded by other students during games, and are rarely invited to birthday parties. DFID (2016) noted that in some communities, disability is associated with witchcraft or spiritual punishment thus leading to isolation of CWD.

For there to be true inclusion, CWD need to feel accepted within the school community. They need to be incorporated not just into the school formal activities but is also in informal circles. They need to be accepted by peers and included in plays as well as school cultural and political events. The CWD should be able to make friends, participate in leisure activities, and contribute meaningful to the school community. Koller, Pouesard, and Rummens (2017) noted the CWD experience low level of social integration. These children are at heightened risk of being bullied and isolated by their peers resulting in negative experiences. In most school, the social inclusion of CWD is hampered by inadequate awareness about disability, negative stereotypes, and negative attitudes.

In his study, Acevedo (2014) also noted that in most schools in the United States CWD were made to sit at table placed at the back of the classroom with the assistance of a support teacher. It became obvious that these children were being segregated from the rest of the class hindering the academic experiences. Acevedo (2014) recommended

that to promote social inclusion, CWD should be allowed to intermingle with peers who do not have special needs. Schools need to create awareness among all pupils and staff regarding the need to make the CWD feel accepted. There is need to eliminate negative biases and prejudices and promote cohesion between CWD and those without disabilities.

According to Bulat, Hayes, Macon, Ticha, and Abery (2017), an inclusive social environment enables CWD to experience a positive presence, a sense of belonging, and develop and maintain social relationship of their own choice. Social inclusion makes CWD an integral part of the school community rather than merely tolerating them. Social inclusion also encourages the appreciation of the gifts, skills, and capacities possessed by CWD by peers and all members of the school community. Bulat et al., (2017) recommended that CWD be allowed to share their personal stories including highlighting their similarities with peers as well as their talents and interests. Students without disabilities should be intrinsically rewarded for assisting pupils with special needs.

In South Africa, Pather (2011) found that support from peers, teachers, and neighbouring communities was vital to the integration of CWPI in regular schools. The study found that CWPI were easily integrated into schools where teachers were friendly to them, non-disabled children were willing to form friendship with them and provide support, and community members are supportive. However, there were doubts regarding whether the study could reflect the situation in Kenyan primary schools due to contextual gaps between Kenya and South Africa.

In Kenya, Odero (2016) examined factors that influence the inclusion of refugee CWPI in education at the Daadab Refugee Camp. Findings revealed that the social environment at the schools within the camp supported the inclusion of CWPI as these children received warm welcome by the school fraternity. Odero (2016) also found that the school community did not use language that discriminate the refuge CWD and that there was harmonious coexistence among all pupils. The study also found that children without disability were briefed on how to relate with CWD, which enhanced the inclusiveness of the school social environment. A major limitation of the study by Odero (2016) is that it relied on information provided by the head teachers of the schools thus exposing it to bias since the heads of the schools had greater incentive to give information that paint their school in positive light. The current study collected information from teachers and triangulate it with data collected through observation.

Ngiria (2013) also examined the inclusion of urban refugee children with disability in primary education in Ruiru District. The study targeted 7 public primary schools with urban refugees with disabilities. Results showed that inclusion of urban refugee children with physical disability in regular classroom increased the amount of social rejection by peers, made the CWD less adjusted socially, and did not guarantee appreciation of CWD by regular children. The study by Ngiria (2013) is however slightly different from the current study given that it focused on refugee children with disability who beside experience exclusion due to their disability are also at risk of facing exclusion due to their refugee status. In addition, the study also relied on descriptive statistics in the analysis of data. The current study uses inferential statistics to tests how various challenges influence the inclusion of pupils with disabilities.

2.7 Summary of Literature Review and Research Gaps

From the literature review, it is evident that the inclusion of children with disabilities in education is a widely researched subject. However, most of the existing studies have been conducted in the context of developed countries and thus they may not reflect the situation in developing countries such as Kenya. As Chimombo (2005) noted, there is a sharp contrast between the school environment in developed countries and those in the developing countries due to existing differences in economic resources. Thus, schools in developing countries may exhibit unique school-based challenges in the inclusion of CWD that may not be evident in the developed countries.

A few studies such as Kosgei (2013), Nthia (2013), Owuor (2014), Odero (2016), and Ngiria (2013) have however been conducted in the Kenyan context to examine how human capital, teaching and learning resources, and physical and social environments influence the inclusion of CWD in education. However, these studies have mainly been conducted in urban areas and none has focused on the specific situation of Kuria West Sub-County.

As Anastasiou and Kauffman (2011) explain, disability is largely a social construction and therefore how it is perceived is bound to vary from one cultural setup to the next. This implies that studies conducted in other parts of the countries may not necessary reflect the current situation in Kuria West Sub-County due to differences in beliefs and societal norms. Consequently, there was a need for a study that focused specifically on the inclusion of pupils in primary education in Kuria West Sub-County.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter details the research design, study location, population, sample and sampling techniques, research instruments, pilot testing, reliability and validity of the research instruments, data collection procedures, data processing and analysis, and legal and ethical considerations.

3.2 Research Design

Research design refers to the overall strategy for collecting, measuring, and analyzing data regarding the variables that are of interest to the study (Coe, Waring, hedges, & Arthur, 2017). The study adopted a descriptive survey design. This design entails studying the phenomenon of interest without manipulating the associated variables in any way (Neuman, 2010). This design was the most appropriate because the researcher had no control over the study variables such as the schools' human capital, teaching and learning resources, physical environment, and social environment. Thus the researcher only examined the current situation within the schools in relations to these variables and the relationship between them.

3.3 Study Location

Study location refers to the geographical area for which data is collected (Cohen, Manion, & Morrison, 2013). This study was conducted in Kuria West Sub-County. It is one of the eight sub-counties in Migori County (Migori County Government, 2018). It had an estimated human population of 162,857 people in 2016. It is divided into eight administrative wards namely: Bukira East, Bukira Central, Isibania, Mokerero, Masaba, Tagare, Nyamosense, and Gokeharaka. This location was selected because evidence

suggests that there is low inclusion of CWPI in primary education. According to MOEST (2009), only 65% of the regular public primary schools had implemented inclusive education and not all the children living with disability were in school. A map of the study location is presented in APPENDIX 6.

3.4 Study Population

Study population refers to the entire group of people or objects that the study intends to generalize its findings (Cohen et al., 2013). The study targeted all the public primary schools in Kuria West Sub-County. According to the Migori County Director of Education, there are a total of 89 public primary schools in Kuria West Sub-County. These schools formed the target population for this study. The study sought to collect information regarding the variables of interest from teachers and administrators of these schools.

3.5 Sample Size and Sampling Procedure

A sample is a small section of the study population from which data is collected and analysed with the view of obtaining results that represent the situation in the entire population (Coe et al., 2017). According to Neuman (2010), the main factors that should guide the definition of the sample size is the need to generate a representative sample and at the same time keep it manageable enough considering available time, finances, and human resources. According to Mugenda and Mugenda (2009), a sample size of at least 10% of the population size is adequate for descriptive study. For the proposed study, 30% of the schools in the study area was selected resulting in sample of 27 schools (30% of 89 schools).

The stratified random sampling method was used to select the 27 schools from the population of 89 schools. This sampling procedure entails dividing the population into heterogeneous groups known as strata and then selecting entities from each strata using random sampling. In this study, the 8 wards that make up the sub-county were used as strata in order to enhance geographical representativeness of the sample. Three school were randomly selected from the list of schools in each ward while four schools were selected from Nyamosense, Isibania, and Tagare wards as these are the largest in terms of human population.

For each ward, the researcher penned the names of schools on small pieces of papers and folded them. The papers were then placed in a box and shaken to achieve a fair mixture. Three pieces of paper were picked from the box and the name contained therein were included in the sample. For Nyamosense, Isibania, and Tagare wards, four pieces of papers were picked from the box so as to determine the two schools that would be involved. The headteachers (administrators) and three teachers from the 27 schools were involved in the study. Thus the study had a sample of 108 individuals comprising 81 teachers and 27 head teachers.

Table 3.1: Sample Frame

Ward/ Strata	No of Schools in the Ward	No of School in the Sample	No. of Teachers in sample	No. of H. teachers
Bukira East	11	3	9	3
Bukira Central	9	3	9	3
Isibania	12	4	12	4
Mokerero	10	3	9	3
Masaba	11	3	9	3
Tagare	12	4	9	3
Nyamosense	14	4	12	4
Gokeharaka	10	3	9	3
Total	**89**	**27**	**81**	**27**

3.6 Data Collection Instrument

Data collection instrument refers to the device that the study intends to use to collect data (Cohen et al., 2013). The study made use of three data collection instruments to ensure triangulation of data and increase chances of obtaining valid results. These instruments include: a questionnaire, a semi-structure interview guide, and an observation checklist.

3.6.1 Questionnaire for Teachers

A questionnaire is a set of questions printed or written with specified choices of answers to be used for a survey. Questionnaires offer more efficient and less expensive option for collecting large amount of data (Neuman, 2010). Questionnaires are also effective tools for gathering information regarding variables that are difficult for the researcher to observe directly such as skills, motivations, attitudes, and experiences. In this study, the questionnaires was used to collect data from the teachers. They comprised of close-ended questions.

The questionnaire was structured into six sections. Section A used mainly closed-ended questions to capture the general demographic information about the respondents. Section B collected information regarding the schools human capital where respondents were given a list of statements and asked to indicate their level of agreement of a five-point scale. Section C focused on teaching and learning resource; Section D captured data regarding the school physical environment challenges; Section E gathered data regarding the school social environment, and the final section captured information regarding the inclusion of CWPI. In these sections, participants were also presented with a list of statement and asked to indicate their level of agreement on a five-point scale.

3.6.2 Interview Guide for Head Teachers

An interview is a data collection method where information regarding the phenomenon of interest is collected through holding conversations with people who are exposed to this phenomenon (Alshenqeeti, 2014). In the current study, interviews were conducted with head teachers of the primary schools. Interviews can be unstructured, semi-structured, or fully structured (Alshenqeeti, 2014). The interview that was conducted in this study was semi-structured meaning that the researcher had a uniform list of initial questions for all the 9 head teachers. Based on responses to these questions, follow-up questions were asked. The interview data was captured through note-taking.

3.6.3 Observation Checklist

An observation checklist refers to a list comprising of objects that the researcher is going to look at when using observation as a data collection method (Cohen et al., 2013). An observation checklist was used to collect data regarding observable variables

such as the physical environment of the schools and number of children with physical impairment in the school compound.

3.7 Pilot Testing

Pilot testing is the process of assessing whether the data collection instruments and procedures work in real-world scenario by trying them out on a small scale (Coe et al., 2017). A pilot study was carried in one public primary schools in Kuria West Sub-County (Mabera Primary School). The pilot study involve all the teachers and the head teacher of the school. The aim of the pilot study was to examine the validity and reliability of the research instruments. The school that was involved in the pilot study was not eligible to participate in the main study to avoid contamination of data.

3.8 Validity and Reliability of Research Instruments

3.8.1 Validity of Research Instruments

Validity is the degree to which the instruments measure what they were intended to measure (Neuman, 2010). The validity of the data collection instruments was enhanced by discussing them with University Supervisors at the Department of Education at African Nazarene University. The researcher sought the assistance of the supervisors in checking the quality and clarity of the questions. The pilot study also helped to establish whether the items in the instrument are well understood by the target population. Triangulation that entailed the use of multiple sources of data also helped to enhance the validity of the study (Cohen et al., 2013). In this case, the researcher triangulated data from the questionnaire, interview, and observation.

3.8.2 Reliability of Research Instrument

Reliability is the extent to which the instruments can give consistent results (Coe et al., 2017). Reliability measures the degree to which an instrument will consistently generate similar results when repeated measurement is done (Neuman, 2010). The Cronbach Alpha method was used to estimate reliability of the instrument at the 0.7 threshold. Table 3.2 show the results of the reliability analysis.

Table 3.2: Cronbach Alpha Reliability Test Results

Scale	N. of Items	Cronbach alpha
Inclusion of CWPI	6	0.798
Human Capital Challenges	6	0.758
Teaching and Learning Resources	7	0.842
Physical Environment	7	0.812
Social Environment	7	0.802

As Table 3.2 illustrates, all the five scales measuring the variables of the study had alpha values that are greater than the 0.7 threshold that was set for this study. This instrument was thus deemed reliable and the researcher proceeded to the main data collection exercise. The reliability test was only applied on the questionnaire. The analysis was done using the Statistical Package for Social Sciences (SPSS).

3.8 Data Processing and Analysis

Data processing and analysis is the process of inspecting, sorting, and transforming data into information that addresses that study objectives (Cohen et al., 2013). Completed questionnaires were assessed to ensure completeness and consistency. Data obtained was then coded and entered into the SPSS software where it was analysed using

descriptive and inferential statistics. Descriptive statistics such as frequencies, percentages, and means were used to describe the current situation within the schools with respect to the study variables. Inferential statistics were used to examine the relationship between the level of inclusion of CWPIs and the four categories of challenges. The multiple linear regression method was used in the inferential analysis. The following model was examined:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: Y = Inclusion of CWPI in primary education; β0= constant (coefficient of intercept); β_1, β_2, β_3 and β_4 = Beta coefficients; X_1= human capital challenges; X_2= teaching and learning resource challenges; X_3= physical environment challenges, X_4= social environment challenges, and ε = error term. Negatively stated statements in the five point Likert scale will be reverse coded such as 5 will be coded as 1, 4 will be coded as 3, 3 will be coded as 3, 2 will be coded as 4, and 1 will be coded as 5. The findings will be presented in tabular form to enable comparison. Explanations to the tables and graphs will be given in prose.

Data obtained through the checklist was analysed using descriptive statistics while data collected through interviews was analysed using the thematic technique. This technique entails summarizing the data into themes that are relevant to the research questions and objective (Neuman, 2010).

3.9 Legal and Ethical Considerations

Ethics involves deciding about right or wrong behaviour (Rea & Parker, 2014). A number of ethical issues were considered during the study. The first entails obtained informed consent from the participants. To fulfil this ethical requirement, the researcher

explained the study to the participants including its importance and potential benefits. Participation was voluntary and respondents were allowed to decide whether to participate without any form of coercion.

The study also took concern with the issue of protecting the privacy and confidentiality of respondents. To satisfy this requirement, the researcher instructed all respondents not to provide any information that could link them to the study such as their names, employment numbers, or names of schools. The questionnaires was also carefully transported and stored to ensure that they are not accessed by unauthorized persons. The researcher also used pseudonyms when reporting the data provided during the interview.

In addition, the study took notice of ethical issues related to respect for other people's intellectual property. To live up to this ethical expectation, the researcher ensured that ideas obtained from other sources are appropriately acknowledged through the use of in-text citations and a list of references. The work was also subjected to a plagiarism check to ensure that not more than 20% of content is obtained from other sources. The researcher also observed the highest level of honesty and integrity in the collection, analysis, and interpretation of data.

CHAPTER FOUR

RESULTS AND ANALYSIS

4.1 Introduction

This study aimed to establish school-based challenges facing the inclusion of children with physical impairment (CWPI) in public primary education in Kuria West Sub-County. This chapter presents the results of the study and analysis of them. The chapter begins by presenting and analysing the response rate and demographic profile of the research participants. It also presents and analyses results of the descriptive and qualitative analysis of each study variable. The chapter concludes by presenting the results of the regression analysis focusing on establishing the relationship between the independent variables of the study and the dependent variable.

4.2 Response Rate

A total of 106 out 108 respondents (98.1%) were able to complete the study. The response rate for teachers who responded was 97.5% and 100% for head teachers. These response rate were higher than the average of 84.8% reported in the National Teacher and Principal surveys conducted annually in the United States (U.S. Census Bureau, 2021). The high response rate can be attributed to ease of accessibility of the target population and the use of drop-off and pick-up (DOPU) method of distributing questionnaires. According to Trentelman et al. (2016), the DOPU method of administering questionnaire increases response rate by enabling the researcher to create a rapport with the participants and increasing participants knowledge of the research project. The success of the DOPU approach is however attributed to the personal interaction between the researcher and participants.

4.3 Demographic Information

The demographic profile of study participants was assessed including their gender, age, highest education level, years worked as a teacher, and years worked at current school. The aim of this analysis was to appraise whether the sample was representative of the population of teachers. Table 4.1 presents the findings.

Table 4.1: Respondents Demographic Profile

Demographic Trait	Categories	Teacher	Head Teachers
Gender	Male	47.5%	74.1%
	Female	52.5%	25.9%
Age	20-29 years	16.3%	0.0
	30-39 years	35.0%	3.7%
	40-49 years	36.3%	37.0%
	50 years and above	12.5%	59.3%
Highest Education Level	Certificate	35%	0.0
	Diploma	33.8%	3.7%
	Bachelors	27.5%	77.8%
	Masters	3.8%	18.5%
Years worked as a teacher	Mean	13.3 years	26.2 years
	Minimum	2 years	10 years
	Maximum	38 years	36 years
Years worked at current school	Mean	6.45 years	9.28 years
	Minimum	1 year	2 years
	Maximum	20 years	13 years

As Table 4.1 illustrates, the majority of the teachers (52.5%) who participated in the study were female while the majority of the headteachers (74.1%) were male. These findings thus imply that the sample was representative of the general population of teachers and head teachers in teachers as far gender distribution is concerned. Previous studies have shown that there are more female than male teachers in Kenyan primary schools but male dominate the school leadership positions.

Results in Table 4.1 furthers shows that teachers were highly distributed across the four age categories with the largest segment (36.3%) being in 40-49 years brackets. On the other hand, most head teachers fell in the advanced age categories with 59.3% of the sampled head teachers being 50 years and above. These findings imply that the study sample was a close representative of the general population of teachers in terms of age distribution.

In addition, results in Table 4.1 reveals that the largest segment of teachers (35%) had certificate level of education. However, the majority of the head teachers had higher education attainment with 77.8% having a bachelors' degree.

Results in Table 4.1 also illustrates that the sampled teachers had worked in teaching profession for an average of 13.3 years while the sampled head teachers had an average 26.2 years of teaching experience. Lastly, teachers had an average length of stay in their current school of 6.45 years while head teachers had an average length of stay of 9.28 years. This period is sufficient for the respondent to gain in-depth knowledge of the challenges involved in the inclusion of CWPI in public primary schools.

4.4 Descriptive and Qualitative Analysis of Study Variables

Descriptive and qualitative analyses were conducted to establish the current state of inclusion of CWPI in primary schools in Kuria West Sub-County as well as the challenges involved. This section presents the results of these analyses. Results are organized according to the variables of the study.

4.4.1 Inclusion of Children with Physical Impairment

Inclusion of CWPI was the dependent variable of the study. To assess this issue, teachers were presented with a list of statement and asked to indicate their agreement with each statement on five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Table 4.2 summarizes the results.

Table 4.2: Respondents view on Inclusion of CWPI in Primary Education

Statement	N	Mean	S.D
There is high enrolment of children with physical impairment in the school	79	1.97	1.050
Children with physical impairment enrolled in the schools attend classes on a regular basis	79	2.05	1.186
Children with physical impairment are actively involved in school activities including physical activities	79	2.09	1.313
Children with physical impairment enrolled within the schools record good academic performance	79	2.59	1.115
Children with physical impairment enrolled within the schools make smooth transition from one grade to the next	79	2.38	1.202
Most of the children with physical impairment who get enrolled in school get to complete primary education	79	2.18	1.206
Inclusion Aggregate Score	**79**	**2.21**	**.877**

Results in Table 4.2 show that respondents on average disagreed (mean=1.97) with the statement that there is high enrolment of CWPI. These findings suggest that contrary to the statement, there is low enrolment of CWPI in the schools. This finding is also supported by data from the observation checklist. One of the items that the researcher was interested in was any child with physical impairment within the school compound. This data is presented in Table 4.3.

Table 4.3: Number of CWPI Spotted in the Schools

Statistic	Value
N	27
Mean	6.5556
Minimum	.00
Maximum	38.00

At Table 4.3 shows that an average 7 CWPI were spotted in the schools. There was also significant variation in the number of CWPI spotted in the schools with the researcher spotting no CWPI in some schools while spotting 38 CWPI in other schools. This variation is also evident from the results in Table 4.2 where the statement inquiring about enrolment of CWPI had a standard deviation that is greater than 1 (SD=1.05). The large standard deviation also indicate that there was major dispersion in responses around the average position. This implies that respondents held divergent views regarding enrolment of CWPI in their schools indicating that different schools have different levels of enrolment of CWPI.

Additionally, results in Table 4.2 illustrates that respondents on average disagreed (mean= 2.05) with the claim that CWPI enrolled in their school attend classes on a regular basis. The findings implies that CWPI enrolled in primary schools in Kuria

West do not attend classes on a regular basis. The standard deviation (SD= 1.186) however shows that there were major variations in the respondents views on this issue. This suggest that class attendance by CWPI varied from one school to another.

Moreover, results in Table 4.2 illustrate that respondents on average disagreed (mean=2.09) that CWPI are actively involved in school activities including physical activities. These findings suggest that CWPI in the schools are not actively involved in school activities. This position is also supported by qualitative data where a number of the head teachers expressed that while the school try to accommodate CWPI, their integration is hampered by facilities' inadequacy. Head Teacher 7 stated that, "The level of inclusiveness to children with physical impairment is fairly good though not with very good facilities" (Head Teacher 7, Interview, 2021) while Head Teacher 26 narrated that, "The school is not inclusive; those children suffer. They lack special facilities to help them," (Head Teacher 15, Interview, 2021). Head Teacher 26 added that, "The level of inclusion of children with physical impairments is below average since we don't have enough facilities," (Head Teacher 26, Interview, 2021). The standard deviation is also greater than 1 (SD=1.313) indicating that there was major dispersion in respondents views regarding the involvement of CWPI in school activities. This also implies that there were major variations in the level of involvement of CWPI in schools activities across the schools in the study areas.

On the other hand, respondents neither agreed nor disagreed (mean =2.59) that CWPI enrolled within the schools record good academic performance. This implies that the academic performance of CWPI is not significantly different from that of other children in the school. This position is supported by qualitative data where one of the head teachers expressed that, "children with special needs have not been left behind in terms

of meeting their educational goals," (Head Teacher 13, Interview, 2021). This excerpt suggest that CWPI in the school are faring just as well as their counterparts without disabilities when it comes to meeting academic expectations. The standard deviation (SD= 1.115) however suggest that the academic performance of CWPI varies across the sampled schools.

Further, results in Table 4.2 show that respondents on average agreed (mean= 2.38) that CWPI enrolled within the schools make smooth transition from one grade to the next. This finding indicate that there are deficiencies in the transition of CWPI from one grade to another. These statistics highlights a problem in the education transition of CWD. The standard deviation (SD= 1.202) suggest that there are major variation in the grade transition process of CWPI from one school to the next.

4.4.2 Human Capital Challenges

The first independent variable of the study was human capital challenges. Several issues were examined including staffing levels, staff's skills for working with CWPI, staff attitude, and staff's incentive to work with CWPI. Respondents were given a set of six statement related to this issues and asked to indicate their agreement with each on a five point scale (1= strongly disagree and 5 = strongly agree). Table 4.4 presents the results.

Table 4.4: Respondents views of Human Capital Challenges

Statement	N	Mean	S.D
The school does not have adequate number of teachers	79	3.41	1.382
The school does not have adequate number of teachers who are trained in special needs education	79	4.11	1.166
The school does not have adequate number of support staff	79	3.80	1.181
The school does not have adequate number of support staff who have skills to work with children with special needs	79	4.04	1.325
The school staffs have a negative attitude towards children with physical impairment	79	3.09	1.546
The majority of staffs show little cooperation when it comes to meeting the needs of children with physical impairment	79	3.03	1.387
Human Capital Aggregate	**79**	**3.56**	**1.000**

Results in Table 4.4 show that respondents on average neither agreed nor disagreed (mean=3.41) with the statement that their school does not have adequate number of teachers. This standard deviation (SD=1.382) also shows respondents had divergent views on this issue. This implies that the adequacy of teaching staff varied across schools. However, respondents on average agreed (mean=4.11) that their school does not have adequate number of teachers who are trained in special needs education. The findings are also supported by qualitative data where 11 (40.7%) of the interviewed heads reported that their schools did not have adequate number of teachers who were trained on special education. One of the head teachers stated, “Teachers are not enough. Syllabus is not well covered because most of the time, teachers are attending to the children with physical impairment,” (Head Teacher 26, Interview, 2021).

Similarly, respondents on average agreed (mean=3.80) that their school did not have adequate number of support staff. They also agreed that (4.04) that their school did not have adequate number of support staff who have skills to work with children with special needs. These findings suggest that most primary schools in the study areas do not have adequate non-teaching staff and that most of the non-teaching staff that are available do not have training on how to work with CWPI. This position is also supported by qualitative data. One of the heads gave the following account; "The school workforce has no experience in handling children with physical impairment. This affects the learning outcomes of these children, (Head Teacher 2, Interview, 2021). Another interviewee had this to say: "In my school, there are no personnel to give special attention to children with physical impairment. This has created a lot of workload to available workers," (Head Teacher 22, Interview, 2021).

Results in Table 4.4 further shows that on average, respondents neither agreed nor disagreed (mean= 3.09) that the school staff have negative attitude towards CWPI. Respondents also on average, neither agreed nor disagreed (mean= 3.03) that the majority of the staff in their school show little cooperation when it comes to meeting the needs of CWPI. The data from teachers was therefore not conclusive regarding the attitude of staff towards CWPI. However, the SD suggest that there are significant variation in the attitude of staff across schools. Qualitative data from one of the interview also affirmed that some staff could be having a negative attitude towards working with CWPI due to the workload involved and the absence of incentives. In this interview, the head teacher expressed that: "Teachers trained in special needs education are not ready to handle special needs learners because there is no special allowance," (Head Teacher 7, Interview, 2021).

4.4.3 Teaching and Learning Resources Challenges

The second category of challenge that the study interrogated are those related to teaching and learning resources. Respondents were presented with a list of teaching and learning resources that are essential to CWP and asked to rate their availability on a five-point scale (1. Not available 2. Few 3. Enough 4. Many 5. Very Many). Table 4.5 presents the findings.

Table 4.5: Teaching and Learning Resource Availability

Resource	N	Mean	S.D
Audio resources	79	1.43	.872
Video/Projectors	79	1.39	.741
Modified Computers for pupils with visual impairment	79	1.24	.720
Modified desks and seats	78	1.45	.816
Hearing assistance technology	79	1.20	.686
Modified playing/sports equipment	79	1.33	.796
Braille books	79	1.18	.781
Teaching and Learning Resources Aggregate	**79**	**1.32**	**.647**

Results in Table 4.5 show that respondents on average reported that audio resources were not available (mean= 1.43) in their school. The standard deviation value is less than 1 (SD=.872) suggesting that the respondents views on availability of audio resources was consistent across schools. Similarly, results in Table 4.5 indicate that on average, teachers reported that video/ projectors (mean= 1.39), modified computers for pupils with visual impairment (mean=1.24), modified desks and seats (mean=1.45), hearing assistance technology (mean=1.20), modified playing/ sports equipment

(mean=1.33) and braille books (mean= 1.18) are not available in their schools. The standard deviation for all these items were also less than1 suggesting that there was little divergence in the views of the respondents regarding the availability of these resources.

These findings lead to the conclusion that public primary schools do not have adequate teaching and learning resources to cater for the needs of CWPI. This position is also supported by qualitative data collected during the interviews with the head teachers. Twenty-five out of the 27 heads (92.6%) mentions the availability of teaching and learning resources as one of the challenges hindering the inclusion of CWPI in their schools. One of the head teachers narrated that, "Due to lack of teaching and learning resources, it have become difficult to integrate children with physical impairment in the schools. When resources are available, learning will improve," (Head Teacher 4, Interview, 2021) while another one had this to say: "The school lacks enough teaching and learning resources for these children due to low capitation. The government only adds Kshs. 2000 for children with special needs, which is not enough to purchase all the equipment, (Head Teacher 15, Interview, 2021). A third interview also added that, "Teaching of children with physical impairment is difficult because there is no enough resources for supporting these children, (Head Teacher 18, Interview, 2021) while Head Teacher 26 expressed similar view:

> I would rate the availability of teaching and learning resources at 40% because there is no money to buy these materials. The regular pupils are going minus some resources because some money is converted to special need education in the school. (Head Teacher 26, Interview, 2021).

From the excerpts, it is evident that most head teachers feel that the resources provided towards the education of CWPI is not adequate. The findings bring out the fact that the

government allocates Kshs 2000 per annum capitation for children with special education needs up for Kshs 1420 allocated for regular pupils. These results are also supported by the data from the observation checklist where the researcher observed that braille signs on building and doors were missing in 25 (92.6%) of the schools while 70.4% of the schools were not painted with bright colour to aid the movement of children with visual impairment.

4.4.4 Physical Environment Challenges

The third category of challenges that the study examined were those related to the physical environment of the school. This include the general landscape of the school, design of classrooms, design of walkways and stairs, design of toilets, lighting, and space for students sitting. Respondents were presented with a set of seven statements examining these issues and asked to indicate there level of agreement with each on a five-point scale (1=strongly disagree to 5= strongly agree). Table 4.6 presents the results.

Results in Table 4.6 show that respondent on average neither agreed nor disagree (mean=3.29) the claim that the general landscape of the school hinder the movement of children with physical impairment. However, the respondents on average agreed (mean=3.54) that the design of classroom hinder the movement and learning of children with physical impairment. They also agreed (mean=3.52) that the design of walkway and stairs obstruct the movement of children with physical impairment. Similarly, respondents on average agreed (mean=3.85) that the design of toilets limit access by CWPI.

Table 4.6: Respondents views on Physical Environment Challenges

Statement	N	Mean	S.D.
The general landscape of the school hinder the movement of children with physical impairment	79	3.29	1.486
The design of classroom hinder the movement and learning of children with physical impairment	79	3.54	1.448
The design of walkway and stairs obstruct the movement of children with physical impairment	79	3.52	1.560
The design of toilets limit their access by children with physical impairment	78	3.85	1.546
The spacing for students seating hinder the learning of children with physical impairment	79	3.23	1.485
The quality of lighting in classes, library, offices and other areas hinder the movement and operations of children with disability	79	3.19	1.494
Doors are narrowly design obstructing the movement of children with disability	79	3.39	1.621
Physical Environment Aggregate	**79**	**3.43**	**1.297**

On the other hand, respondents on average neither agreed nor disagreed (mean=3.23) that the spacing for students seating hinder learning of CWPI. Equally, respondents on average neither agreed nor disagreed (mean=3.19) that the quality of lighting in classes, library, offices and other areas hinder the movement and operations of CWPI. Likewise, respondents neither agreed nor disagreed (mean=3.39) that doors are narrowly design obstructing the movement of children with disability. In summary, the results in Table 4.6 suggest that on average, general landscape of the school, lighting, and space for students sitting, and design of doors are not a major challenge to the inclusion of CWPI in public primary schools in Kuria West Sub-County. The main challenges associated with the physical environment are design of classroom, design of walk ways and stairs, and design of toilets.

However, standard deviation for all the seven items presented in Table 4.6 were greater than 1 suggesting that there were major dispersion in respondents views regarding the appropriateness of the seven aspects of the physical environment. This implies that the appropriateness of these aspects varied across the sampled schools. This position is supported by qualitative data where some of the interviewed heads held that the physical environment in their schools was okay. For instance, one of the head teachers stated that, "The environment is conducive because it is not hilly. We also have some facilities like toilets that are set aside for learners with disabilities," (Head Teacher 11, Interview, 2021). Other interviewees felts that the physical environment posed a challenged to the inclusion of CWPI. For instance, one of the head teachers narrated that, "The school topography may not favour these children (CWPI) unless made favourable for them. The compound is not flat enough and there are no pavement where something like a wheelchair can move easily," (Head Teacher 5, Interview, 2021). Head teacher 19 also recounted that, "Classroom doors are not well designed, there are no pavements and the stairs to the classes are poorly done. The land is not smooth; too rough with big stones; they can't walk well," (Head Teacher 19, Interview, 2021). Head Teacher 26 also added that, "The physical environment is not the best; terrain of the available land needs to be improved. The ground is rocky with lots of corrogation making it difficult for CWPI to move around the compound and into classes," (Head Teacher 26, Interview, 2021). The physical environment challenges was further interrogated using the observation checklist who results in presented in Figure 4.1

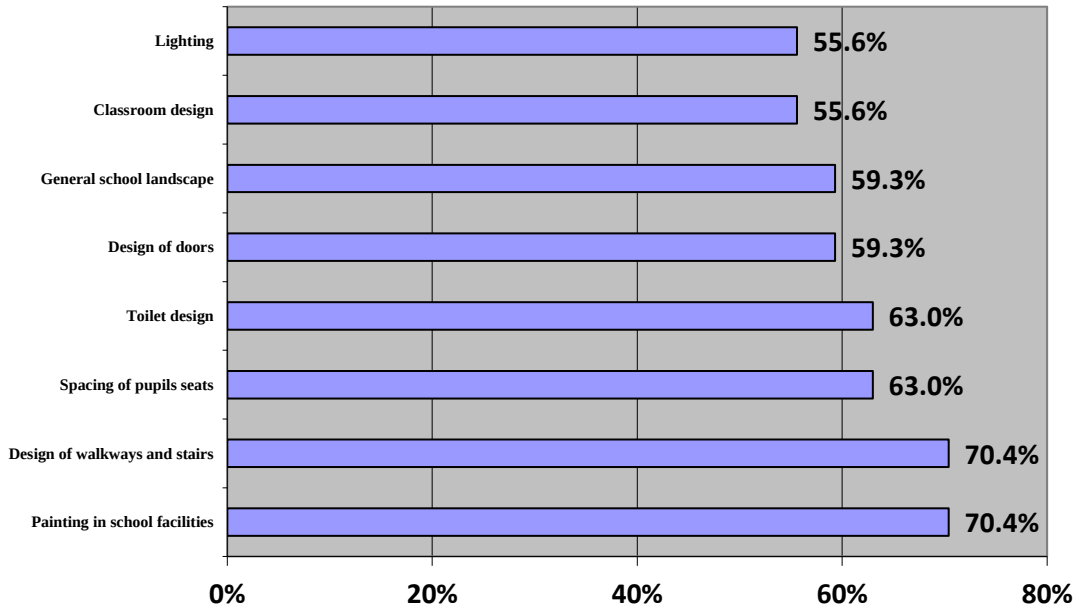


Figure 4.1: Proportion of Schools where Physical Facility was Inappropriate

Data from the researchers observations indicate that major challenges associated with the school physical environment were inappropriate painting of school facilities and inappropriate design of walkways and stairs. The researcher observed that 70.4% of the schools had flaws in these two aspects of the physical environment. About 63% of the schools had inappropriately designed toilets that make it difficult for CWPI to use and inappropriate spacing of pupils seats that makes mobility for CWPI difficult. About 59% of the schools had problems with design of doors and the general landscape while 55.6% had problems with design of classroom and lighting. Both qualitative and quantitative findings suggest that most primary schools in the study area have several aspects of their physical environment that do not support the inclusion of CWPI.

4.4.5 Social Environment Challenges

The final category of challenges that was examined were those related to the social environment of the school. These included school routines, CWPI relations with other

pupils, stereotypes and prejudices within the school community, and school policies. Respondents were presented with a set seven statement related to these issues and asked to indicate their agreement with each on five-point scale. Table 4.7 presents the results.

Table 4.7: Respondents views on Social Environment of the Schools

Statement	N	Mean	S.D.
School routine tend to isolate children with physical impairment	79	3.29	1.424
Children with physical impairment find it difficult to make friends and interact with other students	79	3.44	1.366
Children with physical impairment are rarely included in games and sports	79	3.59	1.362
Children with physical disability are rarely included in co-curricular activities such as drama and music	79	3.90	1.355
Other children hold negative stereotype and prejudices towards children with physical impairment	79	4.00	1.209
Children with physical impairment are often bullied and ridiculed by other children	79	3.46	1.328
Children with physical impairment find it difficult to develop a sense of belonging within the school	79	3.47	1.413
Social Environment Aggregate	**79**	**3.59**	**1.023**

Results in Table 4.7 illustrates that respondents on average neither agreed nor disagreed (mean= 3.29) with the claim that school routine tend to isolate CWPI. Respondents also on average neither agreed nor disagreed (mean= 3.44) that CWPI find it difficult to make friends and interact with other students. On the other hand, respondents on average agreed (mean=3.59) that CWPI are rarely included in games and sports. The also agreed (mean=3.90) that CWPI are rarely included in co-curricular activities such

as drama and music. Similarly, the respondents on average agreed (mean =4.00) that other children hold negative stereotypes and prejudices towards CWPI.

On the contrary, respondents on average neither agreed nor disagreed (mean= 3.46) that CWPI are often bullied and ridiculed by other children. Equally, the respondents neither agreed nor disagreed (mean=3.47) that CWPI find it difficult to develop a sense of belonging within the school. These findings indicate that the main challenges to the inclusion of CWPI associated with the school social environment are CWPI relations with other pupils, stereotypes and prejudices within the school community, and school policies related inclusion of CWPI in co-curriculum activities. Isolation of CWPI, bullying and ridiculing of CWPI, and difficulty in getting a sense of belonging are not major challenges in most schools. However, the standard deviation for all the seven items was greater than 1 suggesting that challenges associated with the school social environment vary across the schools.

These findings are reinforced by qualitative data from the interviews where some of the heads described the relationship between CWPI and other pupils. For instance, Head Teacher described that, The relationship between CWPI and other pupils is very poor, since they are seen as useless and non-productive by the physically abled pupils, (Head Teacher 1, Interview, 2021). Similarly, Head Teacher 21 narrated that, “The relationship between CWPI and other pupils is not the best. The CWPI are always withdrawn because they are rarely involved in school activities. This affect the education outcomes of the CWPI negatively,” (Head Teacher 21, Interview, 2021). On the other hand, some head teachers reported positive relationship between CWPI and other pupils within their schools. For instance, Head Teacher 12 said that, “The relationship is mutual; this affects the education outcomes of CWPI positively since

they want to prove to their counterparts that disability is not inability," (Head Teacher 12, Interview, 2021). In addition, Head Teacher 21, recounted that, "The relationship is positive because the regular learners play and engage those with physical impairment in all activities. This tend to increase the self-esteem of CWPI leading to better educational outcomes," (Head Teacher 27, Interview, 2021). These excepts illustrates that the relationship between CWPI and other pupils is different in each school. This support the verdict that the inclusiveness of the social environment varies across the primary schools. However, 15 out of the 27 heads (55.5%) that were interviewed rated the relationship between CWPI and other pupils as negative.

4.5 Regression Analysis

Regression analysis was conducted to test the significance and magnitude of the relationship between the four categories of challenges and inclusion of CWPI. A model comprising of the four categories of challenges as predictors and inclusion of CWPI as the criterion variable was formulated. Table 4.8 presents a summary of the predictive power of the model.

Table 4.8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.583[a]	.340	.294	.833

a. Predictors: (Constant), Social Environment, Teaching and Learning Resources, Human Capital, Physical Environment

Results in Table 4.8 show that the model has a correlation coefficient (*R*) 0.583, which signifies the existence of a moderate association between variables. This implies that there is a moderate association between the four school-based challenges that were

examined and the inclusion of CWPI in primary schools in Kuria West Sub-County. Results further show that the model had an adjusted coefficient of determination (R^2) of 0.294. This indicate that the four school-based challenges explain 29.4% of variances in the inclusion of CWPI in the primary schools. According to Siddigi (2019), a model with a coefficient of determination that is greater than 0.25 is considered acceptable in social science because social phenomenon are quite complex in that they are shaped by infinite variables. Therefore, the model was deemed to be an appropriate predictor of inclusion of CWPI in primary schools in the study area. The significant of the relationship between the four school-based challenges and inclusion of CWPI was tested using the analysis of variance (ANOVA) statistics presented in Table 4.9.

Table 4.9: ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.659	4	3.915	6.536	.000[b]
	Residual	44.325	74	.599		
	Total	59.984	78			

Results in Table 4.9 show that there is a statistically significant relationship between the four school-based challenges and inclusion of CWPI in primary schools in Kuria West Sub-County ($F_{4, 74}$ = 6.536, p <0.001). This finding implies that the model provides a statistically significant prediction of the inclusion of CWPI in the primary schools. The relationship between inclusion of CWPI and each of the four challenges is further elaborated by the regression beta coefficients presented in Table 4.10.

Table 4.10: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.189	.452		7.049	.000
	Human capital challenges	-.316	.119	-.332	-2.655	.009
	Teaching and learning resources	-.404	.121	-.468	-3.339	.000
	Physical environment	-.107	.109	-.102	-0.982	.057
	Social environment	-.379	.134	-.442	-2.839	.006

4.5.1 Human Capital Challenges and Inclusion of CWPI

Results in Table 4.10 shows that human capital challenges had a standardized beta coefficient of -0.332. This indicate that there is a negative relationship between the human capital challenges and the inclusion of CWPI in primary schools in Kuria West Sub-County. In particular, the coefficient means that if human capital challenges increase by 1 unit, the inclusion of CWPI would decline by 0.332 units. The t-test gave a *p*-value that is less than 0.01 (t= -2.655, *p*=.009), which indicates that the beta coefficient is statistically different from zero at the 0.05 level of significance. The study thereby rejects the first null hypothesis and concludes that human capital challenges have a statistically significant and negative influence on the inclusion of CWPI in public primary schools in Kuria West Sub-County.

4.5.2 Teaching and Learning Resources Challenges and Inclusion of CWPI

Results in Table 4.10 also illustrates that that teaching and learning resources challenges had a standardized beta coefficient of -0.468. This indicate that there is a negative relationship between the challenges associated with teaching and learning resources and the inclusion of CWPI in public primary schools in Kuria West Sub-County.

Specifically, the coefficient means that if teaching and learning resources challenges increase by 1 unit, the inclusion of CWPI would decline by 0.468 units. The t-test gave a *p*-value that is less than 0.001 (t=-3.339, *p*=.000), which indicates that the beta coefficient is statistically different from zero at the 0.05 level of significance. Based on these findings, the study rejects the second null hypothesis and concludes that teaching and learning resources challenges have a statistically significant and negative influence on the inclusion of CWPI in public primary schools in Kuria West Sub-County.

4.5.3 Physical Environment and Inclusion of CWPI

Results in Table 4.10 further reveal that physical environment challenges had a standardized beta coefficient of -0.102. This indicate that there is a negative relationship between the challenges related to the schools' physical environment and the inclusion of CWPI in primary schools in Kuria West Sub-County. In particular, the coefficient means that if physical environment challenges increase by 1 unit, the inclusion of CWPI would decline by 0.102 units. The t-test gave a p-value that is greater than 0.05 (t= -0.982, *p*=.057), which indicates that the beta coefficient is not statistically different from zero. Therefore, the study fails to reject the third null hypotheses, which stated that challenges that emanate from the school physical environment do not have a statistically significant influence on the inclusion of CWPI in public primary schools in Kuria West Sub-County.

4.5.4 Social Environment and Inclusion of CWPI

Lastly, results in Table 4.10 shows that social environment challenges had a standardized beta coefficient of -0.442. This indicate that there is a negative relationship between the challenges that emerge from the school social environment and the inclusion of CWPI in primary schools in Kuria West Sub-County. In particular, the

coefficient means that if social environment challenges increase by 1 unit, the inclusion of CWPI would decline by 0.442 units. The t-test gave a p-value that is less than 0.05 (t= -2.839, *p*=.006), which indicates that the beta coefficient is statistically different from zero. Consequently, the study rejects the final hypothesis and concludes that social environment challenges have a statistically significant and negative influence on the inclusion of CWPI in public primary schools in Kuria West Sub-County.

CHAPTER FIVE

DISCUSSION, SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This study aimed to establish the school-based challenges facing the inclusion of children with physical impairment (CWPI) in public primary schools in Kuria West Sub-County. This chapter presents a discussion of the finding, summary of the findings, the conclusions of the study, and recommendations.

5.2 Discussion of the Findings

The study collected quantitative data from 78 teachers using questionnaires and qualitative data from 27 headteachers using interview guides. Additional data was collected from the 27 schools from which respondents were drawn using an observation checklist. Quantitative data was analysed using descriptive and inferential statistics while qualitative data was analysed using the thematic content analysis technique. This section discusses the findings of the study

5.2.1 Human Capital Challenges and Inclusion of CWPI

The first objective of the study was to examine the influence of human capital challenges on inclusion of children with physical impairment in public primary schools in Kuria West. Results in Table 4.2 show that respondents on average disagreed (mean=1.97) with the statement that there is high enrolment of CWPI. These findings suggest that contrary to the statement, there is low enrolment of CWPI in the schools. The findings are consistent with the MOEST (2009) report that indicate that only 65% of the regular public primary schools had implemented inclusive education and that not all the children living with disability were in school. This finding is also supported by data from the observation checklist.

One of the items that the researcher was looking out for was any child with physical impairment within the school compound. At Table 4.3 illustrates, an average 7 CWPI were spotted in the schools. This is quite a small number given that an average public primary school in rural Kenya has about 1000 pupils (Republic of Kenya, 2019). There was also significant variation in the number of CWPI spotted in the schools with the researcher spotting no CWPI in some schools while spotting 38 CWPI in other schools. This variation is also evident from the results in Table 4.2 where the statement inquiring about enrolment of CWPI had a standard deviation that is greater than 1 (SD=1.05). The large standard deviation also indicate that there was major dispersion in responses around the average position. This implies that respondents held divergent views regarding enrolment of CWPI in their schools indicating that different schools have different levels of enrolment of CWPI.

In addition, results in Table 4.2 illustrates that respondents on average disagreed (mean= 2.05) with the claim that CWPI enrolled in their school attend classes on a regular basis. This findings implies that CWPI enrolled in primary schools in Kuria West do not attend classes on a regular basis. The finding is consistent with the study by Moyi (2017), who found that the percentage school attendance for CWD in Nyanza region was 86.59 as compared to 94.77 for children without disabilities. Also, results in Table 4.2 illustrate that respondents on average disagreed (mean=2.09) that CWPI are actively involved in school activities including physical activities. These findings suggest that CWPI in the schools are not actively involved in school activities. The findings are congruent with the study by Kirui (2015), who observed that SEN pupils in Tinderet Sub-County were not full engaged in educational activities due to shortage of equipment. This position is also supported by qualitative data where a number of the

head teachers expressed that while the school try to accommodate CWPI, their integration is hampered by facilities' inadequacy. There were major variations in the level of involvement of CWPI in schools activities across the schools in the study areas.

On the other hand, respondents neither agreed nor disagreed (mean =2.59) that CWPI enrolled within the schools record good academic performance. This implies that the academic performance of CWPI is not significantly different from that of other children in the school. Qualitative data also showed that CWPI in the schools are faring just as well as their counterparts without disabilities when it comes to meeting academic expectations. The finding is in line with Murungi (2017), who noted that CWD in public primary schools in Igembe South Sub-County recorded similar performance as children without disabilities. The standard deviation (SD= 1.115) however suggest that the academic performance of CWPI varies across the sampled schools.

Further, results in Table 4.2 show that respondents on average agreed (mean= 2.38) that CWPI enrolled within the schools make smooth transition from one grade to the next. This finding indicate that there are deficiencies in the transition of CWPI from one grade to another. The finding also congruent with Murungi (2017) who observed that while 39% of CWD had enrolled and graduated from mainstream primary school in 2016, only 9% were attending secondary schools. These statistics highlights a problem in the education transition of CWD. The standard deviation (SD= 1.202) suggest that there are major variation in the grade transition process of CWPI from one school to the next.

Results of the regression analysis presented in Table 4.10 shows that human capital challenges have a statistically significant and negative influence on the inclusion of

CWPI in public primary schools in Kuria West Sub-County (β = -0.332, *t* [78]= -2.655, p=.009). These findings are consistent with the study by O'Neill et al .(2009), who found that teachers expertise and experience in formulating and implementing an integrated ‘inclusive education' curriculum and skills teachers used in the day-to-day management of inclusive education contributed to successful inclusion of CWD in New Zealand. Consequently, the absence of teacher expertise and skills tend to be a barrier to the inclusion of CWPI. The findings are also congruent with the study by Callan (2013), who observed that the attitudes of educators and other members of the school community contributed to the success of making education inclusive to learners with special education need in Dublin, South Africa. This implies that the absence of a positive attitude is a major barrier to inclusion as current findings suggest.

5.2.2 Teaching and Learning Resource Challenges and Inclusion of CWPI

The second objective of the study was to investigate the influence of teaching and learning resources challenges on inclusion of children with physical impairment in public primary schools in Kuria West. Descriptive statistics presented in Table 4.5 lead to to the conclusion that public primary schools do not have adequate teaching and learning resources to cater for the needs of CWPI. This position is also supported by qualitative data collected during the interviews with the head teachers. Twenty-five out of the 27 heads (92.6%) mentions the availability of teaching and learning resources as one of the challenges hindering the inclusion of CWPI in their schools. From the interview data, most head teachers felt that the resources provided towards the education of CWPI is not adequate. Qualitative data brought to light the fact that the government allocates Kshs 2000 per annum capitation for children with special education needs up for Kshs 1420 allocated for regular pupils.

These results are also supported by the data from the observation checklist where the researcher observed that braille signs on building and doors were missing in 25 (92.6%) of the schools while 70.4% of the schools were not painted with bright colour to aid the movement of children with visual impairment. Inadequacy of teaching and learning resources was also observed in the study by Okongo et al. (2015), who found that the inclusion of CWD in pre-school centres in Nyamira North sub-county was hampered by unavailability of adequate instructional resources and materials. Current findings also congruent with the study by Nthia (2009), who observed that the inclusion of children with special needs in Embu East Sub-County was hindered by the unavailability of resources for aiding the learning process for these children.

Regression analysis results in Table 4.10 illustrates that that teaching and learning resources challenges have a statistically significant and negative influence on the inclusion of CWPI in public primary schools in Kuria West Sub-County (β = -0.468, t [78] = -3.339, p <.001). These findings are congruent with the study by Bizimana and Orodho (2014), who found that that there was a substantial link between the quality of teaching and learning resources and the level of inclusion of CWD within the schools in Huye District in Rwanda. Current findings are also in line with the study by Okongo et al. (2015), who found inadequate supply of teaching and learning resources hindered the implementation of inclusive education in pre-school centres in Nyamira North sub-county. Kosgei (2013) also found that availability of resources had a major bearing on the enlistment of CWD in all-inclusive schools in Nandi South Sub-County.

5.2.3 Physical Environment Challenges and Inclusion of CWPI

The third objective of the study was to assess the influence of physical environment challenges on inclusion of children with physical impairment in public primary schools

in Kuria West. Descriptive results in Table 4.6 suggest that on average, general landscape of the school, lighting, and space for students sitting, and design of doors are not a major challenge to the inclusion of CWPI in public primary schools in Kuria West Sub-County. The main challenges associated with the physical environment are design of classroom, design of walk ways and stairs, and design of toilets. However, standard deviation for all the seven items presented in Table 4.6 were greater than 1 suggesting that there were major dispersion in respondents views regarding the appropriateness of the seven aspects of the physical environment. This implies that the appropriateness of these aspects varied across the sampled schools.

This position is supported by qualitative data where some of the interviewed heads held that the physical environment in their schools was okay. Others felts that the physical environment was a moderate challenge while there are those who felt that it was a major challenge in their school. Data from the researchers observations indicate that major challenges associated with the school physical environment were inappropriate painting of school facilities and inappropriate design of walkways and stairs. The researcher observed that 70.4% of the schools had flaws in these two aspects of the physical environment.

Both qualitative and quantitative findings suggest that most primary schools in the study area have several aspects of their physical environment that do not support the inclusion of CWPI. These findings are congruent with the study by Baptiste, Malachie, and Struthers (2013), who found that community based rehabilitation centres for CWD in Rwanda were characterized roads that were not well maintained, staircases in the centres facilities, and lack of special seats. The findings are also congruent with Owuor (2014), who found that most of the institutions in Kisumu County did not have assistive

devices such as ramps, adoptable toilets, and wide doors limiting the inclusion of children with disability.

However, regression analysis results reveal that physical environment challenges do not have a statistically significant influence on the inclusion of CWPI in public primary schools in Kuria West Sub-County (β= -0.102, t [78] = -.982, p = .057). These findings are consistent with the study by Bapiste et al. (2013), who noted that poorly maintained roads, staircases in the schools, and absence of special seats made it difficult for CWD to attend school in two community based rehabilitation centres in Rwanda from attending schools. The study by Owuor (2014) also found that lack of assistive devices such as ramps, adoptable toilets, and wide doors limiting the inclusion of children with disability in public primary schools in Kisumu Municipality

5.2.4 Social Environment Challenges and Inclusion of CWPI

The final objective of the study was to Interrogate the influence of social environment challenges on inclusion of children with physical impairment in public primary schools in Kuria West. Descriptive statistics presented in Table 4.7 indicate that the main challenges to the inclusion of CWPI associated with the school social environment are CWPI relations with other pupils, stereotypes and prejudices within the school community, and school policies related inclusion of CWPI in co-curriculum activities. Isolation of CWPI, bullying and ridiculing of CWPI, and difficulty in getting a sense of belonging are not major challenges in most schools. However, the standard deviation for all the seven items was greater than 1 suggesting that challenges associated with the school social environment vary across the schools. These findings are reinforced by qualitative data from the interviews where some of the heads described the relationship

between CWPI and other pupils as poor while others said that the relationship was positive.

Qualitative data suggested that the relationship between CWPI and other pupils is different in each school. This support the verdict that the inclusiveness of the social environment varies across the primary schools. However, 15 out of the 27 heads (55.5%) that were interviewed rated the relationship between CWPI and other pupils as negative. This indicate that the social environment of most primary schools need to be improved. The findings are congruent with the study by Ngiria (2013) who found that urban refugee children with disability in regular classrooms in primary schools in Ruiru Sub-County experienced social rejection by peers, which made the CWD less adjusted socially, and did not guarantee appreciation of CWD by regular children.

Lastly, regression analysis results in Table 4.10 shows that social environment challenges have a statistically significant and negative influence on the inclusion of CWPI in public primary schools in Kuria West Sub-County (β= -0.442, t [78]= -2.839, $p < .05$). These findings are congruent with the study by Odero (2016), which found that the social environment with the camp at the Daadab Refugee Camp influenced the inclusion of refugee CWPI. Findings revealed the camps were characterized by warm welcoming of CWPI by the school fraternity, use language that does not discriminate the refuge CWD, harmonious coexistence among all pupils, and debriefing of children without disability on how to relate with CWD. These social aspects enhanced the inclusiveness of the school social environment. The aspect of such an inclusive social environment tend to have an opposite effect on levels of inclusion. This was observed in the study by Ngiria (2013), who found that social rejection by peers adversely

affected the inclusion of urban refugee children with disability in primary education in Ruiru District by making the CWD less adjusted socially.

5.3 Summary of Findings

The study has established that there is low level of inclusion of CWPI in the public primary schools in terms of school enrolment, school attendance, involvement in school activities, and grade transition. The study examined the contribution of four categories of challenges towards the low inclusion of CWPI. These challenges include: human capital, teaching and learning resources, physical environment, and social environment.

Concerning human capital challenges, results showed that the majority of the primary schools do not have adequate number of teachers who are trained on special education needs. In addition, most schools do not have adequate number of non-teaching staff. Consequently, teachers spend a considerable amount of time fulfilling caregiving roles to the CWPI such as maintaining hygiene, which negatively affects the delivery of the curriculum. Similarly, some teachers are demoralized by the absence of special allowance to compensate for increased workload associated with the education of CWPI. The regression analysis showed that such human capital challenges have a negative and statistically significant influence on the inclusion of CWPI in the primary schools.

In regards to teaching and learning resources challenges, results revealed that most public primary schools in Kuria West Sub-County do not have adequate teaching and learning resources needed to support the inclusion of CWPI. The study established that the inadequacy of teaching and learning resources can be attributed to the low capitation from government to cater for CWPI. Findings have established that schools receiving capitation of Kshs 2000 per every CWPI per annum from the government up from the

Kshs. 1420 per annum that is received for every regular pupil. Most head teachers felt that this allocation was not adequate. The regression analysis revealed that teaching and learning resource challenges have a negative and statistically significant influence on the inclusion of CWPI in the primary schools.

Regarding physical environment challenges, results established that inappropriate design of classroom, inappropriate design of walk ways and stairs, and inappropriate design of toilets are the main physical environment challenges in public primary schools in Kuria West Sub-County. Research observation also determined that inappropriate painting of school facilities was a major challenge. Findings further showed that there were major variations in the physical environment of the schools. However, the regression analysis established that the physical environment challenges in the primary school do not have a statistically significant influence on the inclusion of CWPI.

Lastly, the study found that CWPI relations with other pupils, stereotypes and prejudices within the school community, and school policies related inclusion of CWPI in co-curriculum activities were the main challenges associated with the social environment of the primary schools in Kuria West Sub-County. Negative stereotype and prejudices help by other pupils towards CWPI seems to be the main social environment barrier because this item had the highest mean rating. However, results showed that the social environment differed across schools with some school having a more inclusive climate than others. Regression analysis found that social environment challenges have statistically significant and negative influence on the inclusion of CWPI in public primary schools in Kuria West Sub-County.

5.4 Conclusions

Based on the findings, the study concludes that there is a low level of inclusion of children with physical impairment in public primary schools in Kuria West Sub-County. Most of the schools are characterized by low enrolment of CWPI, low school attendance by these children, and limited involvement of CWPI in school co-curriculla activities. There is also a problem with grade transition among CWPI in the schools.

The study further concludes that inadequate teaching and learning resources is the most significant barrier to the inclusion of CWPI in primary schools in the study area. This factor had the highest negative beta coefficient indicating that it had the greatest influence on inclusion of CWPI. Descriptive finding also showed that most schools lacked basic resources such as audio players, video/projectors, modified computers for pupils with visual impairment, modified desks and seats, hearing assistance technology, modified playing/sports equipment, and braille books.

The study also concludes that social environment challenges and human capital challenges have also played a major role in shaping the low inclusion of CWPI in public primary schools. The social environment had the second highest negative beta coefficient followed by human capital challenges. The main social environment aspects affecting inclusion are prejudices and stereotypes held by other pupils towards CWPI. The main human capital challenges include lack of adequate number of teachers who are trained on special education and lack of adequate number of staff.

Regarding physical environment challenges, the study conclude that most primary schools are characterized by challenges with the main ones being inappropriate design of classroom, inappropriate design of walk ways and stairs, and inappropriate design of toilets. However, these challenges do not have a major impact on the child.

5.5 Recommendations

Based on the findings and conclusions, the study makes the following recommendations:

1. To tackle the human capital challenges, The TCS should organize programmes aimed at training existing teachers on how to work with children with special education needs. This will ensure that all teachers are able to handle CWPI reducing workload on teachers who have specialized in SNE. In the long-term, the MOEST should incorporate special need education training in the curriculum for all teachers. This will ensure that all teachers that graduate from colleges and university have the skills and expertise needed to work with CWPI.

2. To address teaching and learning resources changes, the Republic of Kenya through the MOEST should increase the capitation allocated to public primary school for CWPI. The study has established that the current capitation of Kshs. 2000 is not sufficient to acquire all the resources needed to educate CWPI. Head teachers in public primary schools should find alternative strategies for raising resources needed to acquire teaching and learning resources needed to educate CWPI instead being completely dependent on government capitation. Head teachers should explore avenues such as the school alumni networks, private partners within the school communities, and income generating projects to raise extra funds.

3. Physical environment challenges can be addressed by the ministry of education should increasing capitation for CWPI to facilitate the development of infrastructure and facilities needed to enhance the inclusion of CWPI.

4. To address social environment challenges, the ministry of education should incorporate educational content and programmes that seek to eliminate negative stereotypes and prejudices regarding disability among pupils. This will help create a social environment that support the inclusion of CWPI. Head teachers should develop strategies for addressing negative stereotypes and prejudices held by regular pupils towards CWPI. The strategies should be geared towards creating awareness and addressing misconceptions regarding causes of impairment as well as misconceptions regarding the capabilities of CWPI.

5.6 Suggestions for Further Research

Current study has established that inadequacy in teaching and learning resources is greatest barrier to the inclusion of CWPI in public primary schools in Kuria West Sub-County. However, it did not go into details regarding the specific types of resources that are missing. Future studies should explore this issue in depth. It should examine the specific types of impairment that are prevalent in the schools and the specific types of resources that are needed in the school.

Current study was confined to public primary schools in the study area. Future studies should examine the inclusion of CWPI in private primary schools and associated challenges. Future studies should also explore challenges encountered in the inclusion of CWPI in secondary schools within the study area.

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APPENDIX 1: TRANSMITTAL LETTER

ANCILLAH CHACHA

P.O BOX 60

KEHANCHA

Dear …….,

RE: TRANSMITTAL LETTER FOR RESEARCH

I am a student of Africa Nazarene University-Kisii Campus and carrying out a research study for the award of a Master Degree in Education. The study seeks to establish challenges facing children with physical impairments in accessing public primary Education in Kuria West Sub County, Migori County.

I request for your indulgence and collaboration in gathering the data needed to realize the intents of this study. You are guaranteed that utmost confidentiality will be upheld and the information attained will only be utilized for research work.

Yours Faithfully,

ANCILLAH CHACHA

RESEARCHER

0711360814

APPENDIX 2: QUESTIONNAIRE FOR TEACHERS

The purpose of the study is to investigate Challenges Facing the Inclusion of Children with Physical Impairment in Public Primary Schools in Kuria West Sub-County. Data collected will be used solely for academic purposes and treated confidentially.

Instructions

- Please answer all questions as honestly as possible
- Do not write your name or number

Section A: Background Information

1. What is your gender

   Male [ ]

   Female [ ]

2. What is your age?

   Below 20 years [ ]

   20- 29 Years [ ]

   30-39 Years [ ]

   40-49 years [ ]

   Above 50 Years [ ]

3. What is your highest education level?

   Masters [ ]

   Bachelors [ ]

   Diploma [ ]

   Certificate [ ]

   Others (specify) _____

4. How many years have you worked as a teacher? _____

5. How many years have you taught in this school? _____

Section B: Information related to human capital challenges.

The following statements relate to human resource challenges that are currently hampering the inclusion of children with physical impairment in the school. Indicate the extent to which you agree with each statement by ticking in the appropriate column.

1. Strongly Disagree 2. Disagree 3. Neither Agree nor Disagree 4. Agree 5. Strongly Agree					
Statement	**1**	**2**	**3**	**4**	**5**
6. The school does not have adequate number of teachers					
7. The school does not have adequate number of teachers who are trained in special needs education					
8. The school does not have adequate number of support staff					
9. The school does not have adequate number of support staffs who have skills to work with children with special needs.					
10. The school staffs have a negative attitude towards children with physical impairment.					
11. The majority of staffs show little cooperation when it comes to meeting the needs of children with physical impairment					
11. Staffs have little incentive to work with children with physical impairment					

Section C: Information Related to Teaching and Learning Resources Challenges

This section examines the availability of various teaching and learning resources. Please indicate the availability by ticking in the appropriate column.

1. Not available 2. Few 3. Enough 4. Many 5. Very Many					
Teaching and Learning resource	**1**	**2**	**3**	**4**	**5**
12. Audio resources					
13. Videos/ projectors					

14. Modified computers for pupils with visual impairment					
15. Modified desks and seats					
16. Hearing assistance technologies					
17. Modified playing/ sports equipment					
18. Braille books					

Section D: Information Related to School Physical Environment Challenges

This section examines the extent to which the school physical environment supports the needs of children with visual impairment. Indicate the extent to which you agree with each statement by ticking in the appropriate column.

1. Strongly Disagree 2. Disagree 3. Neither Agree nor Disagree 4. Agree 5. Strongly Agree					
Statement	**1**	**2**	**3**	**4**	**5**
19. The general landscape of the schools hinder the movement of children with physical impairment					
20. The design of classroom hinder the movement and learning of children with physical impairment					
21. The design of walkways and stairs obstruct the movement of children with disability					
22. The design of toilets limit their access by children with physical impairment					
23. The spacing for students seating hinder the learning of children with physical impairment					
24. The quality of lighting in classes, library, offices, and other areas hinder the movement and operations of children with disability					
25. Doors are narrowly design obstructing the movement of children with disability.					

Section E: Information Related to School Social Environment Challenges

The following statements relate to challenges that emanate from the school social environment that might hinder the learning of children with physical impairment. Indicate the extent to which you agree with each statement by ticking in the appropriate column.

1. Strongly Disagree 2. Disagree 3. Neither Agree nor Disagree 4. Agree 5. Strongly Agree					
Statement	**1**	**2**	**3**	**4**	**5**
26. School routines tend to isolate children with physical impairment					
27. Children with physical impairment find it difficult to make friends and interact with other students					
28. Children with physical impairment are rarely included in games and sports.					
29. Children with disabilities are rarely included in co-curricular activities such as drama and music					
30. Other children hold negative stereotypes and prejudices towards children with physical impairment					
31. Children with physical impairment are often bullied and ridiculed by other children					
32. Children with physical impairment find it difficult to develop a sense of belonging within the school.					

Section F: Information Related to Inclusion of Children with Physical Impairment

The following statements related to the inclusion of children with physical impairment in the primary schools. Please indicate the extent to which you agree with each statement by ticking in the appropriate column.

1. Strongly Disagree 2. Disagree 3. Neither Agree nor Disagree 4. Agree 5. Strongly Agree					
Statement	**1**	**2**	**3**	**4**	**5**
33. There is high enrollment of children with physical impairment in the school.					
34. Children with physical impairment enrolled in the schools attend classes on a regular basis					

35. Children with physical impairment are actively involved in school activities including physical activities					
36. Children with physical impairment enrolled within the schools record good academic performance					
37. Children with physical impairment enrolled within the school make smooth transition from one grade to the next					
38. Most of the children with physical impairment who get enrolled in the school get to complete primary education.					

Thank You

APPENDIX 3: INTERVIEW GUIDE FOR HEAD TEACHERS

1. Gender
2. Age
3. Highest education level
4. Number of year worked as a teacher.
5. Number of years worked as a head teacher in current institution
6. What is your opinion regarding the inclusion of children with physical impairment in regular public primary schools?
7. How would you rate your schools' level of inclusiveness to children with physical impairment?
8. What major challenges does the school face when it comes to the inclusion of children with physical impairment?
9. How has the school's workforce affected the inclusion on children with physical impairment in the school?
10. How would you rate the availability of teaching and learning resources for supporting children with physical impairment?
11. To what extent has the availability of teaching and learning resources affected the inclusion of children with physical impairment.
12. How does the school physical environment affect the inclusion of children with physical impairment?
13. How would you describe the relationship between children with physical impairment and other pupils in the school?
14. Does the interaction between children with physical impairment and other pupils affect the education outcomes of the children with disabilities?
15. What measures can public primary schools in the area take improve the inclusion of children with physical impairment?

APPENDIX 4: CHECKLIST

1. Number of children with impairment who could be spotted in the school compound.

_____

2. Appropriateness of the general landscape of the school to CWPI.

Inappropriate [ ] Average [ ] Appropriate [ ]

3. Appropriateness of classroom designs to CWPI

Inappropriate [ ] Average [ ] Appropriate [ ]

4. Appropriateness of walkways and stairs to CWPI

Inappropriate [ ] Average [ ] Appropriate [ ]

5. Appropriateness of toilets to CWPI

Inappropriate [ ] Average [ ] Appropriate [ ]

6. Appropriateness of spacing for pupils' seating to CWPI

Inappropriate [ ] Average [ ] Appropriate [ ]

7. Appropriateness of lighting in classes, library, offices, and other areas to CWPI.

Inappropriate [ ] Average [ ] Appropriate [ ]

8. Appropriateness of the designs of doors to CWPI

Inappropriate [ ] Average [ ] Appropriate [ ]

9. Number of braille sign on buildings, doors, and sports facilities.

Total No= _____

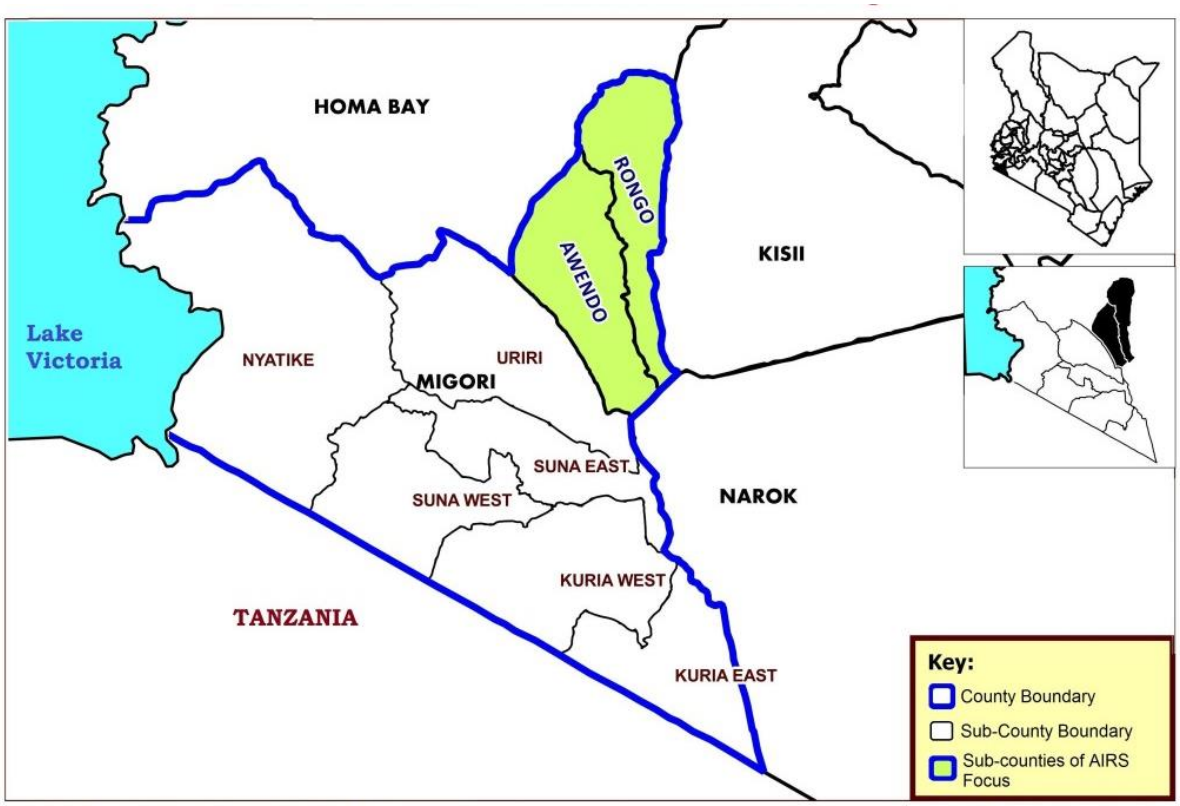
10. Facilities painted with bright colors.

Total No= _____

APPENDIX 5: LIST OF PUBLIC PRIMARY SCHOOLS IN KURIA DISTRICT

1. Bingutwi Pry Sch	30. Komorege Pry	59. Nyamaranya Pry Sch
2. Bm Kugitura Pry Sch	31. Komosoko Pry Sch	60. Nyamararangere Pry
3. Bogambero Pry Sch	32. Korobunyige Pry	61. Nyamekoma Pry Sch
4. Bohorera Pry	33. Korogati Pry	62. Nyametaburo Pry Sch
5. Boremagongo Pry Sch	34. Kubwaha Pry Sch	63. Nyamagongwi Pry
6. Chacha-Maroa Pry	35. Kubweye Mixed Pry Sch	64. Nyamosense Pry Sch
7. Gekamiri Pry	36. Kugisingisi Pry Sch	65. Nyamotambe Pry Sch
8. Getabara Pry	37. Kuguyi Pry Sch	66. Nyamwini Pry Sch
9. Getonganya Pry	38. Kurutiange Pry	67. Nyanchabo Pry
10. Getongoroma Pry	39. Kwigena Pry	68. Nyangoge Pry
11. Gosese Pry Sch	40. Mabera Pry Sch	69. Nyankore Pry
12. Gwikongwe Pry Sch	41. Makonge Pry	70. Nyasese Pry Sch
13. Igena Pry Sch	42. Masaba Pry	71. Robarisia Pry
14. Ihore Pry Sch	43. Masangora Pry Sch	72. Rokere Pry Sch
15. Ikerege Boarding Pry	44. Moheto Pry Sch	73. Rosabare Pry Sch
16. Ikerege Mixed Pry	45. Muchebe Pry	74. Sagegi Pry
17. Iraha Pry Sch	46. Naora Pry	75. Setta Academy Pry Sch
18. Isibania Mixed Pry Sch	47. Ngisiru Pry Sch	76. Sirori Simba Pry Sch
19. Kamasincha Pry	48. Ngochoni Pry Sch	77. Sorore Pry Sch
20. Karosi Pry	49. Ngukumahando Pry Sch	78. St. Anne Isibania Girls Boarding
21. Kebobono Pry Sch	50. Nguruna Pry	79. St. John's Nyangiti Pry Sch
22. Keborui Pry	51. Nyabirongo Girl Day & Boarding	80. St. Joseph's Tungaini Pry Sch
23. Kemakoba Pry	52. Nyabirongo Mixed Pry	81. St. Kizito Pry
24. Kengariso Pry Sch	53. Nyabokarange Pry	82. St. Kizito Special Unit
25. Kiburanga Pry Sch	54. Nyabokarange Special Unit	83. Tagare Pry Sch
26. Kionyo Pry	55. Nyagutu Pry	84. Taragwiti Pry
27. Kokeharaka Pry Sch	56. Nyamagagana Pry	85. Taranganya Boarding Pry Sch
28. Kombe Pry	57. Nyamaharaga Pry Sch	86. Taranganya Mixed Pry Sch
29. Komomange Pry	58. Nyamaharaga Pag Pry Sch	87. Wizara Pry

APPENDIX 6: MAP SHOWING KURIA WEST SUB-COUNTY



(Source: http://www.africairs.net/kenya)

APPENDIX 7: INTRODUCTION LETTER FROM ANU

AFRICA NAZARENE
UNIVERSITY

27th May, 2021

RE: TO WHOM IT MAY CONCERN

Chacha Ancillah Bhoke (**14JO4CMED043**) is a bonafide student at Africa Nazarene University, in the Education Department. She has finished her course work and has defended her thesis proposal entitled: - ***"School-based challenges facing the inclusion of children with physical impairments in public primary education in Kuria West sub-County, Migori County, Kenya".***

Any assistance accorded to her to facilitate data collection and finish her thesis is highly welcomed.

Regards,

Dr. Titus Mwanthi.
Ag. Deputy Vice Chancellor, Academics.

APPENDIX 8: NACOSTI PERMIT

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **748728**

Date of Issue: **11/June/2021**

RESEARCH LICENSE



This is to Certify that Ms.. Ancillah BHOKE Chacha of Africa Nazarene University, has been licensed to conduct research in Migori on the topic: SCHOOL-BASED CHALLENGES FACING THE INCLUSION OF CHILDREN WITH PHYSICAL IMPAIRMENTS IN PUBLIC PRIMARY EDUCATION IN KURIA WEST SUB-COUNTY, MIGORI COUNTY, KENYA for the period ending : 11/June/2022.

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