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Exploring the influence of one-on-one peer support on academic performance and career pathway choice for students with visual impairment: a case of a selected Secondary School in Kilimanjaro Region

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EXPLORING THE INFLUENCE OF ONE-ON-ONE PEER SUPPORT ON ACADEMIC PERFORMANCE AND CAREER PATHWAY CHOICE FOR STUDENTS WITH VISUAL IMPAIRMENT: A CASE OF A SELECTED SECONDARY SCHOOL IN KILIMANJARO REGION

BY

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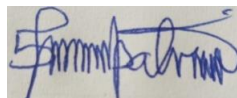
DEDICATION

First, I would like to thank God for providing me with countless possibilities and blessings, as well as for allowing me to successfully complete the course.

To my loving mother, Ms Theresia John, and father, Mr John Lewanga Kimaro, for their unwavering support and prayers throughout my life and academic path.

To my beloved wife **Omega**, who has taken such good care of our children Godson and Gabrijel as well as my daughter Giana and made sure that our family is progressing.

I also dedicate this work to my son **Godson Gerald Lewanga** for bearing with me while I was away

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Signature

07/12/2022

Date

ABSTRACT

This study explored the influence of one-on-one peer support on the performance and career pathway choice of students with Visual Impairment (VI) in secondary school. The study adopted a qualitative research approach with a case study design. The sampling was purposive and the sample size comprises four teachers (One academic teacher, the head of the special need department, one teacher from STEM and one teacher from the social science department) and ten students (five pairs of one-on-one peer support from Form three class). The study employed an interview guide, focus group discussion guide and document analysis protocol as the instruments for data collection. Qualitative data was collected through semi-structured interviews which involved the teachers, focus group discussion with the students and document review and analysis. The data was transcribed verbatim, coded, and themes were generated through thematic analysis. The study findings revealed that one-on-one peer support was initiated by school management and teachers to enhance the performance of students with VI. It was noted that since the introduction of one-on-one peer support, the performance of students with VI has improved. However, the study found no formal document describing the structure, objective, monitoring and evaluation for one-on-one peer support. Additionally, it was observed that teachers hardly monitored effectively one-on-one peer support learning between students with VI and regular learners as there wasn't a guideline on how to do it. Thus, one-on-one peer support is a remarkably powerful strategy for supporting students with VI, but it should be well structured for easy monitoring and evaluation.

ACKNOWLEDGEMENTS

DECLARATION OF ORIGINALITY

I, GERALD JOHN KIMARO, hereby avow to the best of my knowledge that this is my original work. I have invested my efforts exceedingly to achieve it and honored the giants.

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LIST OF ABBREVIATIONS AND ACRONYMS

AKU-IED, EA   Aga Khan University Institute for Educational Development, East Africa

BEST   Basic Education Statistics in Tanzania

DED   District Executive Director

DEO   District education officer

ERC   Ethical Review Committee

FGD   Focus Group Discussion

NECTA   National examinations council of Tanzania

VI   Visual Impairment

STEM   Science, Technology, Engineering and Mathematics

DAS   District Administrative Secretary

DED   District Executive Director

MDGs   Millennium Development Goals

MSEO   Municipal Secondary Educational Officer

MoEST   Ministry of Education Science and Technology

ICT   Information and Communication Technology

RAS   Regional Administrative Secretary

SDGs   Sustainable Development Goals

TIE   Tanzania Institute of Education

UN   United Nation

CHAPTER ONE

INTRODUCTION AND BACKGROUND

1   Introduction.

Peer support involves identifying current or potential skills gaps within the school or organization and developing programs to resolve these gaps. Educational research including research in regular schools' education, special need education and inclusive education establish that peer support is an essential contributor to student learning. However, there are contradicting views and an overall lack of research regarding how best one-on-one peer support strategies influence academic performance and career pathway choice for students with Visual Impairment (VI).

This research, therefore, aims to explore how a one-on-one peer support approach influences academic performance and career pathway choice for students with Visual Impairment (VI). This chapter, provides an introduction to the study by first presenting the background and context, followed by the research problem, the research purpose, objectives and questions, the significance and finally the study limitations.

Background of the study

Peer support signifies many different things. For instance, according to Shalaby and Agyapong (2020), peer support is a method of providing and receiving assistance based on important values like respect, shared accountability, and an understanding of what is beneficial. In contrast to support, which is the kind of profoundly felt empathy, encouragement, and help that people with shared experiences can offer one another within a reciprocal relationship. A peer is an equal, someone with whom one has common racial, ethnic, or sociological characteristics.

The idea of peer support started to spread in the middle of the 19th century, with the introduction of alcoholics anonymous and other programs, which are considered the "oldest and most prevalent of peer programs (Solomon 2004 as cited in Gidugu et al., 2015). In addition to that, Gidugu et al. (2015) pointed out that, such initiatives were seen as a response to the ineffectiveness of conventional services and as a way to tap into the capacity of people to provide one another with support, comfort, knowledge, and assistance.

Peer support is now provided through a variety of service delivery modes, where in educational systems, people help one another attain educational goals. Peer support results in active learning (Bozzi et al., 2021). Peer support learning is more pronounced in inclusive education as much as core education is concerned. In inclusive education settings, regular students and students with special needs are learning together. For these reasons, students with special needs such as those with Visual Impairment need some extra support so that they can manage their learning in schools as other regular sighted students.

According to Johnstone et al. (2020), in 1994, the United Nations Organization (UN) signed the Salamanca statement and framework for action on special needs education, which marked the new beginning of inclusive education. This proclamation urged to give a higher priority in national education systems to children with special educational needs. Inclusion is the key feature of the Sustainable Development Goals (SDGs) that reflect a modern vision for global development, building on the achievements and challenges of the Millennium Development Goals (MDGs), which came to an end in 2015 (Johnstone et al., 2020). Inclusive education is the notion of ensuring that all students have access to schools, learning centres, and educational systems (Florian, 2019). This allows students to participate in all parts of school life. It also entails identifying, decreasing, or eliminating barriers to learning within and beyond the school (Milic Babic & Dowling, 2015). Therefore, this requires teachers, schools, and institutions to change their physical and social environments to meet the wide range of learning needs that students may have (Kimani, 2018).

The inclusive educational setting, including students with VI. Marques et al. (2021) pointed out that about 43.3 million individuals are with VI worldwide based on data collected in 2020. Students with VI tend to receive rejection and sometimes they experienced self-denial. This in most cases leads to poor performance and they end up not achieving their desirable expectation due to low self-esteem (Al-Sharif, 2018). In the education setting, inclusion involves the process of reforming and redesigning the entire school to ensure this student has access to the school's full range of educational and social opportunities. Consequently, education aims at reducing challenges facing students with disabilities including students with VI by improving their engagement with other students which will improve their performance and enhance positive living and self-determination skills.

The United Republic of Tanzania's constitution states that all people have an equal right to access education regardless of gender, tribe, and region. Furthermore, the Tanzania disability policy (2004) tackles the challenges facing people with disability including those with VI to have equal access to education (Aldersey & Turnbull, 2011). According to Basic Education Statistics, (2019), about 12,212 students with different disabilities were registered in secondary school in 2019 Tanzania, in which 920 of them are students with VI. To meet the required access to equal education for all, the Tanzania government declared fee-free education from primary school to secondary schools (MoEST 2014). This initiative aims at providing universal primary education to all learners regardless of their physical, emotional, and intellectual differences.

To ensure that all students, regardless of their disability, have an equal opportunity to get the same education, it is essential to include students with VI with sighted students in general education (Mallanhanse et al., 2020). Despite having some deficits in their social and/or self-development, students with VI are included in a regular school and in the same classroom where they have an equal chance to learn with other sighted students to improve social participation. This guarantee that students with VI have access to the same educational opportunities and that they develop intellectually and socially alongside their peers of the same class.

Scholars have realized that an important goal of education is to foster social participation, hence students with VI achieve this through peer learning (Henke et al., 2017). In inclusive settings, students with VI are paired with their fellow sighted students to improve or develop social participation as a key agenda for inclusive education. Also, research has shown that students with VI are at great risk of withdrawing from peer relationships. Kisanga and Kisanga (2022) found that majority of visually impaired students have developed into dependent users of assistive technology tools who rely on the assistance of either sighted students or a more experienced individual.

According to Tanzania's curriculum, teaching in ordinary-level secondary schools does not focus directly on directing students into particular career pathways. Students are prepared in such a way that they can have good academic achievement in their final examinations. Depending on the performance of students in form two National examination, students are allocated or choose different career pathways in form three. In this study, therefore, performance and career pathway

choice are considered as one variable to comply with the structure and nature of our school system and the demand of the study. Furthermore, most of these secondary schools employed a one-on-one peer support system where each learner with VI is paired with one sighted student for the whole course of the study. Thus, peer support aims at developing competencies in engagement which results in improving student collaboration.

Statement of the problem

One-one-peer support is of critical importance in improving academic performance for students (Ray, 2013). Numerous studies have investigated strategies and approaches for peer support learning in schools where key skills and knowledge do not focus much on supporting students with VI toward improving their academic performance and career pathway choice. Yet, Santhanalakshmi (2021) pointed out that peer learning approaches are among the method for assisting and supporting students with disabilities.

Some studies have shown that sighted students perform better than their fellow VI although they sit and learn together as peers (NECTA, 2021). Based on BEST (2020), statistics show that few students with VI are found in business and STEM subjects in high school because of poor performance in these subjects in lower levels. It is therefore likely that if students with VI are not well supported, theymay result into poor performance, dropout and demonstrate little or no progress towards STEM related subjects (BEST 2020; Li & Carroll, 2020). Little or inadequate research exist, that looked into the issue of peer support in inclusive education, which is essential for influencing performance and career pathway choice for students with VI. Therefore, there was a need to explore how one-on-one peer support influences learning, performance and career pathway choice for students with VI in inclusive secondary schools**.**

Purpose of the study

The purpose of this qualitative study was to explore how one-on-one peer support influences school performance and career pathway choice for students with Virtual Impairment (VI). Sackin et al. (1997) point out that the best chance of useful learning is when challenging problems are faced in a supportive environment. Thus, the study focused on finding how sighted peers support students with VI in improving academic performance and developing diverse carrier

pathway choices including Science, Technology, Engineering, Mathematics (STEM), business, or social science in secondary schools in Tanzania.

Research objectives.

1.1.1 Main Objective

The exploration the of influence of one-on-one peer support on academic performance and career pathway choice for students with Visual Impairment.

1.1.2 Specific objectives

- To explore the nature and structure of one-on-one peer support.
- To describe the support provided by regular sighted students and its influence on performance and career pathway choice to students with VI.
- To explore the views and perceptions of teachers, regular-sighted learners and Visually impaired students on the existing one-on-one peer support about the performance and career pathway choice for students with VI.

Research questions

1.1.3 Main question

How does one-on-one peer support from sighted students influence VI students' performance and carrier pathway choice?

1.1.4 Subsidiary question

    a. What is the nature and structure of one-on-one peer support?

    b. How is the support that students with VI receive from their regular-sighted peers influence their academic performance and career pathway choice?

    c. What views or perceptions do teachers, regular sighted and Virtual Impaired students have of the existing one-on-one peer support in relation to performance and carrier choice for students with VI?

Significance of the study

The findings of this study may contribute to the body of knowledge regarding the influence of one-on-one peer support on performance and career pathway choice for students with VI. This will help to address the current shortage of research in this area and provide the real-world value of peer support practices in an inclusive educational setting. The study may inform teachers and school administrators on the nature, structure and uses of existing one-on-one peer support learning styles.

On the other hand, the study may inform students about the importance and best practices of peer support on performance and career pathway choice. This study may also, inform curriculum developers about the best practices of one-on-one peer support to students particularly those with VI in inclusive educational settings.

The study also provided a chance to hear from and take into account the needs of students with VI in terms of their educational demands. In addition to that, the study adds literature to the existing body of knowledge and for other researchers for further studies.

Limitations of the study.

The limitation of this study is that there are a limited number of literature to be reviewed because there is little research has been conducted in Tanzania that focuses on peer support for students with VI in inclusive secondary schools. In addition to that, the scope of the study was small for the results to be generalized to all-inclusive secondary schools, and so, more broad research may need to be done for extensive exploration and broader generalization.

Structural Outline of Dissertation.

This dissertation has been organized into five chapters. In chapter one, the context of the study has been introduced. The research objectives and questions have been identified, as well as the significance of the study. The limitation of the study has also been discussed.

In chapter two, the existing literature related to the research topic will be reviewed to identify key concepts on the influence of peer support on performance and career pathway choice for students with Visual impairment (VI). In this chapter, the researcher has constructed the conceptual framework that guides the study.

Chapter three consists of a detailed description of the research methodology. The adoption of a qualitative research approach will be justified. It also includes the justification of the research design, sample and sampling technique, the purpose of the study and methods used in data collection. Furthermore, the chapter includes the ethical consideration issues and limitations of the study.

Chapter four involves a detailed presentation and discussion of research findings. The findings from the interview, FGDs and document analysis are presented, analyzed and discussed under four subheadings corresponding to three research subsidiary questions presented in this study.

Chapter five is the final chapter of the dissertation. It concludes the dissertation with a strong summary of the main findings, the implication, and recommendations for the students, teachers, school administrations, policymakers and other researchers. Finally, it concludes the study.

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK.

2 Introduction.

This section gives a review of related literature that talk about peer learning and inclusive education in different parts of the world. In this review, the theory underpinning the study, concepts of peer support, peer support and inclusive education, and factors influencing academic performance and career choice have been discussed. Based on this, a critical ground base is established to justify the study and establish the knowledge gap. There are several research studies that have been done to explore the influence of peer learning on academic performance. This review therefore, is divided into the following sub-heading; theory underpinning the study, concept of peer support, peer support learning, peer support and inclusive education, factors influencing academic performance, peer support, academic performance and carrier pathway choice, the definition of the key terms, conceptual framework and summary of the chapter.

Theory underpinning the study

The study is underpinned by the Vygotsky's Sociocultural learning theory where learning is a social process and human intelligence emerges from social grouping. The theory stresses the fundamental role of social interaction is the development of cognition (Vygotsky & Cole, 1978). "Students learn better when they interact with peers" (Vygotsky & Cole, 1978). Lev Vygotsky suggests that social interactions with peers who possess greater knowledge might facilitate learning and perhaps accelerate cognition. The Zone of Proximal Development, a notion developed by Vygotsky, suggests that there is the best period for individuals to learn. This Zone is a place where students, with the assistance of others who are more knowledgeable, can understand concepts and solve problems that they otherwise would not be able to do alone. Furthermore, Kirby (2017) pointed out that all students have an equal chance toward learning, regardless of their need or disability

Concept of peer support?

White et al. (2020,) in their study on the effectiveness of one-to-one peer support in mental health, defined peer support as an exchange of emotional and practical support between individuals who identify as peers due to having the same experiences. The peer support movement is frequently credited with having given rise to organized forms of peer support in more recent times (Dynan & Ryan, 2019). For these reasons, in this presentation one-on-one peer support refers to the support that a sighted student offers to a student with VI in inclusive school settings.

Peer support learning.

Peer learning is a strong, effective learning strategy that has been proven to increase students' learning and engagement (Dynan & Ryan, 2019). Peer support learning help teacher meet the intended curriculum and enhance teaching-learning strategies. The research conducted on the impact of peer-assisted learning by Santhanalakshmi & Al (2021) observed that to meet the various learning needs of each student, teachers should employ Peer Assisted Learning Strategy (PALS) which is a class-wide peer tutoring program. This is a planned program for peer support (Short et al., 2010). The peer-assisted learning tactics are intended to support current school curricula and teaching strategies, not to replace them. For example, this research conducted by Santhanalakshmi (2021) found that students who use peer-supported learning significantly improved their performance levels in contrast to non-peer-assisted students on several reading metrics. So, when higher- and lower-achieving students are paired together they learn from one another through practice and reinforcement.

In a study conducted on peer relationships, academic performance, and motivation at school, Wentzel (2017) found that peer relationships are crucial to children's development throughout childhood and adolescence. Also, Karakos (2014) pointed out that peers relation generally have a positive impact, but occasionally may have a negative impact, such as drug and alcohol usage among youths. However, Wentzel (2017) insist that peer relationship serves as a source of enjoyment and companionship, assists in problem-solving, emotional support, and a foundation for identity formation. Furthermore, Wentzel (2017) found that children who have positive relationships with their peers also seem to have higher levels of emotional well-being, self-belief, and values for socialization behaviour and social engagement than do children who

don't have these qualities. Consequently, the result from this study found that children with good peer relationships also tend to be more engaged in and even excel at academic tasks than children with negative peer relationships. Throughout the school years, academic success has been consistently and favourably correlated with children's ability to interact socially with their peers.

Peer support and inclusive education.

A qualitative study conducted by Ralejoe (2021) that examined students' opinions about inclusive education as it relates to students with Visual Impairment (VI) in a secondary school in the Maseru district of Lesotho revealed that both students with and without visual impairment had different viewpoints on the integration of students with visual impairment in their mainstream school. The study found some advantages of having students with visual impairment in general classes which includes peer consultations, peer tutoring, and peer support. Furthermore, the study revealed that inclusion allowed learners with visual impairment to develop better ways of interacting with others who do not have visual impairments, which in turn enhanced their social lives in school.

Haakma et al. (2018), in their study concerning the need for support for students with VI in the Netherlands, found that peer support learning style influenced students' engagement in learning. Similar findings were observed by Kiefer et al., (2015) in their study on teacher and peer support for young adolescents in Florida, which found that, in peer support teaching, teachers provide students with structures, self-support and engagement. Thus, peer support learning, support the psychological need of the students to feel competent, autonomous, and related. Conclusively, it can be said that peer support has a direct and positive influence towards student engagement with learning.

Factors influencing academic performance.

According to Suraweera et al., (2022) performance of students with VI is affected by many factors including motivation to learn, external support, instructional strategies, physical environment, ICT as well as language. Furthermore, their study on… it was observed that, among the mentioned factors that affect the performance of VI student, motivation influence was the most critical factor which influences learning for students with VI (Suraweera et al., 2022).

Consequently, establishing awareness of the peer support elements will influence academic motivation and increase academic performance for students with VI.

On the other hand, a study conducted by Clark and Raker (2021) on the development and evaluation of scales for measuring self-efficacy and teaching beliefs of students facilitating peer-supported pedagogies in the Southeast United States pointed out that peer support learning was rapidly being included in active learning pedagogies used in STEM fields such as science, technology, engineering, and math. Such pedagogies have their roots in constructivist theories of learning, which make use of the closest peers to support others (Bada & Olusegun, 2015). The success of peer-supported pedagogies indicates significant promise for improving retention in STEM and success in the entry points.

Heppe et al. (2020) found that a reliable indicator of emotional, social, and general well-being for an individual with VI is the presence of friends. Peer relationships assist individuals to cope with stress more effectively. Consequently, peer relationships may also improve psychological wellness which has a direct effect on learning for students with VI.

Peer support, academic performance and carrier pathway choices.

Most people perceive that visual impairment can significantly affect a person's quality of life. But Suraweera et al., (2022) clarified the perception by arguing that the education that a person receives is found to have potential and significance in improving the quality of life in the community over time. This means equal access to education for all students including those with VI is critical in improving their quality of life and the community at large. Furthermore, Suraweera et al. (2022) pointed out that blindness is not a barrier to effective learning. Gottschling et al. (2012) emphasize that the cognitive realm has nothing to do with issues with visually impaired people. A person with VI may have some difficulty in gathering and spreading information, but if provided with the right tools and support, he or she can learn by using the other four senses. Accordingly, if the person is provided with the right academic environment and support, they would be able to compete on an equal footing with their sighted peers (Suraweera et al., 2022).

The study conducted for students with disability in Croatia found that students are satisfied with the informal support that they are given by their parents and fellow student but were not

satisfied with the formal support they receive from the institution (Milic Babic and Dowling, 2015). Furthermore, this research argued that the students proposed that the institution and government should invest in peer support or personal assistance to provide a conducive and motivating environment for students with disability to learn (Milic Babic & Dowling, 2015). The peer-to-peer supported learning environment is a suggested method for assisting learners in developing a quality learning environment by using suggested people, content, and tools (Corneli and Mikroyannidis, 2011). Therefore, learning would be more effective if students had access to a personalized learning environment because they frequently complete assignments with peer support.

In any school setting, peer learning is encouraged because it is one of the methods of changing class or school to become a learning community (Stoll et al., 2006). The study shows that peer learning is more important in inclusive schools because it facilitates the holistic development of learners particularly those with learning disabilities. Kiefer et al., (2015) in a study conducted on teacher and peer support for young adolescents found that, if peer-supported learning is well monitored in schools, then schools become learning communities, as a result, the school environment becomes conducive and motivates students to learn. Furthermore, Corneli & Mikroyannidis, (2011) in their study pointed out that, the more the school environment becomes conducive and motivating for the learner to learn, the more the students achieve higher performance and outcomes. Therefore, if peer support learning is used in inclusive schools, then it is highly likely that students with VI will have high academic performance allowing them to have a vast of carrier choices.

The best chance of learning is when challenging problems are faced in a supportive environment. As pointed out by Dynan and Ryan (2019) peer learning frequently concentrates on pair or small group activities to assist students to achieve the intended learning outcomes. In this era of a learner-centred approach, the role of a teacher should be more of a facilitator, managing the procedure to peer support learning (Sackin et al., 1997). This framework allows for the systematic use of peers' support and learners' participation in their learning program to motivate students to assist one another (Johnson & Stanfa, 2019).

Definition of the key terms.

One-on-one peer support: In this presentation one-on-one peer support refers to the support that a sighted student offers to a student with VI in inclusive school settings.

Visual Impairments (VI): According to this study, VI Children are children whose vision is completely lost and cannot be corrected by wearing glasses, contacts, or other devices.

Career pathway: A career path consists of all the positions or steps that a person can take as they advance in a certain sector or profession.

Conceptual framework.

The fundamental assumption of this study was that one-on-one peer support between students with VI and regular-sighted peers influences performance and career pathway choice for students with VI. The researcher believed that one-on-one peer support would influence students' learning, which could have an impact on their performance and career pathway decisions. As shown in figure 1, because support is at the heart of effective learning strategies, the more students receive support related to their areas of strength, weakness, and growth strategies, the more they become motivated and engage in learning. The enhanced learning that emerged from peer support would then result in improved academic performance.
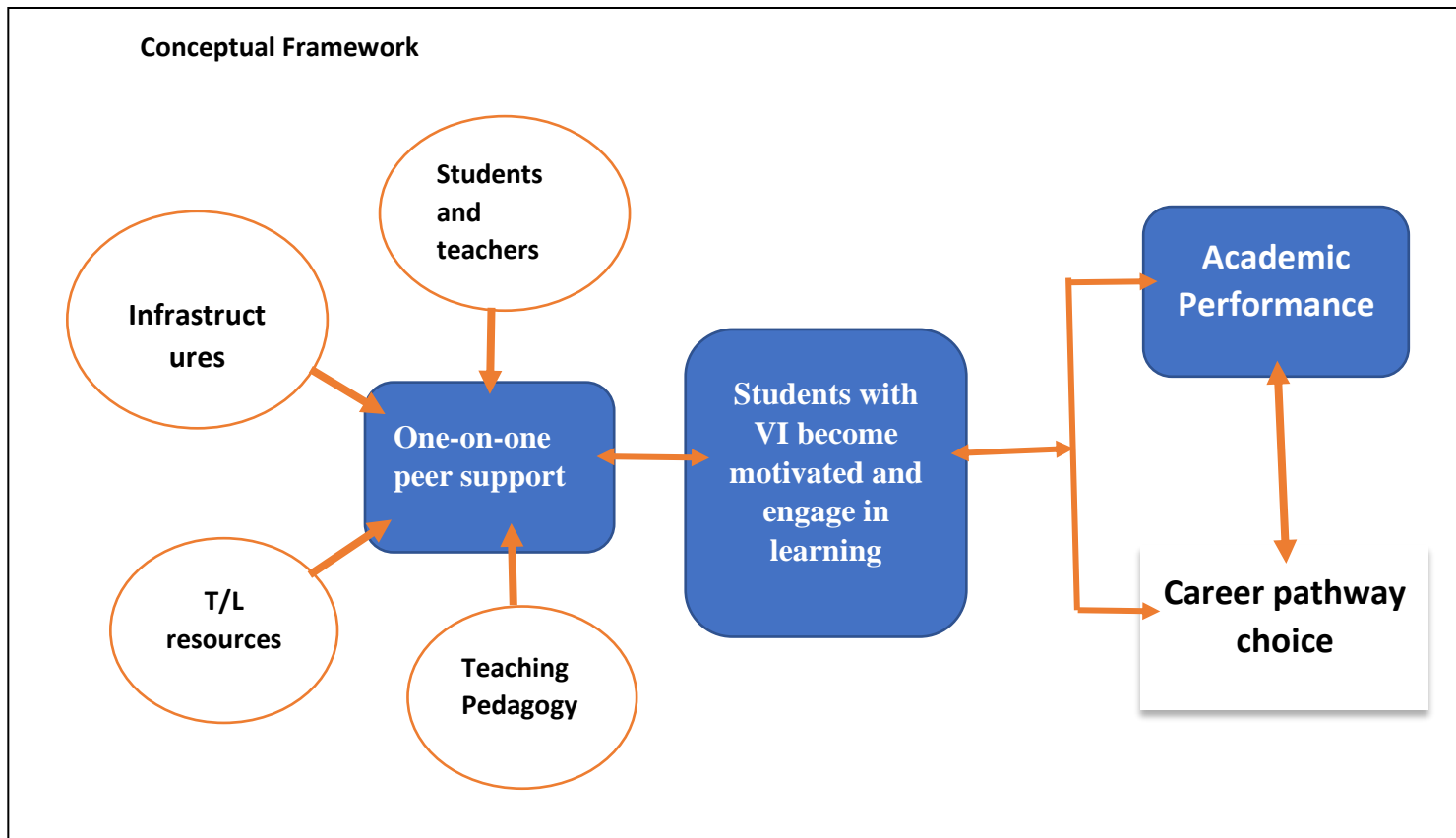
Figure 1: Conceptual framework developed by the researcher

Research gap

Peer support have been mentioned in most studies as a crucial component that helped teachers feel confident teaching students with special needs (Boyle et al., 2012). One-on-one peer support is embraced in most inclusive secondary schools in Tanzania. However, there are few studies that have examined one-on-one peer support and its impact on academic achievement and career options for secondary school students with VI. Little is known on how these pairing influences performance and career choice for students with VI. The goal of the current study is to advance knowledge by examining the influence of one-on-one peer support practices on academic performance and career decisions, particularly for students with VI in secondary schools where,

among other things, the teaching and learning environment has been described as a challenge(Belay & Yihun, 2020).

Chapter summary.

This chapter on the literature review has established ground and justification for the current research project. Based on the several reviewed literatures, it has been identified that peer support learning is of high importance for teachers to meet the intended curriculum content and learner to learn the curriculum content through engagement. Also, research has shown that students who were involved in peer support learning perform better than those who did not. Toward a student-centred paradigm, peer support learning creates a learning community where each student becomes a part as they engage and interact with themselves as well as with learning resources. This literature review, therefore, establishes the need to understand how one-on-one peer support influence performance and career pathway choice for students with VI in an inclusive school setting.

CHAPTER THREE

METHODOLOGY

3   Introduction

This chapter presents the research design and methodology used in the study. As described in section one, this research aims at exploring the influence of one-on-one peer support on performance and career pathway choice for students with visual impairment. Therefore, this chapter presents the research design and approach, sample and sample procedure, research site, data collection methods, data analysis methods and ethical considerations and limitations of the study.

Research approach and design

The present study intended to explore and understand how one-on-one peer support learning practices conducted in an inclusive setting influence performance and carrier pathway choice for learners with VI. Since the study required to collect information from the natural environment, the qualitative research approach was considered to be the appropriate approach in understanding the nature of the phenomenon under investigation (Cohen et al., 2011). In qualitative settings, the researcher is able to capture clearly, what exact support is being offered in one-on-one peer support in a natural and realistic environment (Bogdan & Biklen, 1997)

Furthermore, the qualitative research approach provides room for the researcher to use varieties of data collection methods (Khaldi, 2017). The study used multiple methods of data collection including; interviews, FGDs and document analysis. Qualitative analysis gives room for the researcher to collect information on the perceptions, filling and emotions of the participants on the influence of one-on-one peer support on performance and career pathway choice for students with Visual Impairment (VI). Creswell (2012) pointed out that qualitative research is suitable for research problems whose variables are to be discovered in a natural environment. The natural environment for this study was the inclusive secondary school where regular sighted students support their fellow peers with VI.

For a depth understanding of the information in the respective natural environment and to find how sighted peers support the students with VI in inclusive settings, the case study research

design was adopted (Creswell, 2014). The case study design was considered appropriate for the study much better because the qualitative research approach requires detailed information from the participants (Ishtiaq, 2019). As pointed out by Yin (2009), a case study answers the questions such as how and why because it explores the richness of the phenomenon and the extent of the issue in a real-life situation. Also, a case study was more suitable because the study was allocated a limited time frame (Stake, 2010). The research design guided the researcher throughout the study from data collection, data analysis, presentation of findings and discussion (Creswell, 2012). The case study design allowed researchers to employ multiple sources of data to obtain rich and detailed information about the existing one-on-one peer support and its influence on performance and career pathway choice for students with VI.

Sample and sampling procedure.

According to Creswell (2012), the sample is a subgroup of a larger population that is used in the study by the researcher for the generalization of the population. In this study, the researcher used a purposive sampling technique to obtain participants with defined and specific characteristics suitable for the study. Ten (10) Form-three students of which five (5) were students with VI and the other five (5) were regular-sighted peers with whom they study together on one-on-one peer support. These students were purposively selected because they had experience with one-on-one peer support as it falls on the basics of this study. In addition to that, the study involved students from form three-class because in this class is when students are allowed to choose their desired carrier pathway.

Also, the study involved four (4) teachers teaching Form three classes of which one (1) was a teacher from Science, Technology, Engineering and Mathematics (STEM) subjects teaching physics form three, one (1) from social science subjects teaching Kiswahili form three, one (1) Head of the department of special need students, also teaching Kiswahili to Form three class and last one (1) was an academic mistress who was also teaching English in Form three class. The head of the department of student special needs was among the selected teachers. Besides that, 50% of the teachers who were involved in this study were graduates and specialized in special need education. Therefore, purposive sampling helped the researcher to choose respondents with qualities of information required including, knowledge, experience and expertise related to one-

on-one peer support and how it influences performance and career pathway choice for students with VI.

Research site.

The study was carried out in one of the inclusive public secondary schools in Moshi, Kilimanjaro region, Tanzania. The researcher used purposive sampling technique to select the school because the schools enroll both regular-sighted students and students with VI in an inclusive setting. So, it was a school relevant to gather the information related to the influence of one-on-one peer support on academic performance and career pathway choices for students with VI in schools.

Research participants.

The study involved four teachers, teaching Form three classes. Also, the study involved ten (10) Form three students of which five were regular-sighted and the other five were students with VI. These students' were studying as peers in class, which means each student with VI was paired with on regular sighted student for support.

Table 1: Participants' (Teachers) profile.

Na	Name(pseudonym)	Gender	Duties in school	Working experience	Teaching subjects
1	Teacher 1(T1)	F	Assistance head of the physics department	20	Physics
2	Teacher 2(T2)	F	Academic mistress	15	English
3	Teacher 3(T3)	F	Head of special need department	15	Kiswahili
4	Teacher 4(T4)	M	Teacher	20	Kiswahili

Table 2: Participants (Students) profile.

Na	Name (Pseudonyms)	Gender	Class	Status	Career pathway
1	Student A	M	Form III	Regular	Science

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2	Student B	M	Form III	Regular	Science
3	Student C	M	Form III	Regular	Science
4	Student A1	M	Form III	VI	Social science
5	Student B1	M	Form III	VI	Social science
6	Student C1	M	Form III	VI	Social science
7	Student A3	M	Form III	Regular	Science
8	Student B3	M	Form III	Regular	Science
9	Student C3	M	Form III	VI	Social science
10	Student D3	M	Form III	VI	Social science

3.5 Data Collection Methods

The researcher employed several methods of data collection including interviews, focus group discussions, and document analysis. Employment of these methods allowed the researcher to perform triangulation of data during data analysis. According to Heale and Forbes (2013), triangulation in research is the use of more than one approach in researching a question and so, its analysis. The use of various research methods by the researcher increased the rigor of the study since it enabled the researcher to verify findings from across different data sources. Furthermore, this method increased the trustworthiness of the data through the confirmation of the findings or preposition using two or more independent measures and hence the credibility of the study.

3.5.1 Interview

The researcher employed semi-structured interviews (open ended questions) with the teachers to find out more about the influence of one-on-one peer support on performance and career pathway choice for students with VI. This involved one to one conversation method where the interviewer asks a question and the interviewee answers the question (Busetto et al., 2020). Bradt et al. (2013) also emphasized that interview is the best method for probing respondents to give firsthand information and more clear and effective information for the study. The one-to-one

interview was conducted to gather information from the teachers about the nature and structure of one-on-one peer support.

The researcher conducted four one-on-one interviews with four different teachers teaching Form three classes. Each interview took an average of 30 minutes. A semi-structured interview guide with the open-ended question was used during the interview. Semi-structured interviews were utilized (See appendix A to C) on purpose to give the researcher freedom and to allow for a deeper probing, enabling respondents to provide additional clarification and provide in-depth information (Denzin & Lincoln, 2011).

The researcher used an audio recorder during a one-to-one interview with teachers. Recording the interview enabled the researcher to capture all the information and details obtained from the field (Grbich, 2012). The recording enriched the researcher's intention of obtaining enough data from the teachers on how the one-on-one peer support was at the particular school. Similarly, recording allows the researcher to give more attention to other non-verbal communication expressed by the interviewee through eye contact. This means the researcher used a field notebook to note all non-verbal communication observed by the researcher during the interview since they cannot be captured by the audio recorder.

3.1.1   Focus group discussion.

This method was used to collect data from people with a shared understanding of the phenomenon and collect views from specific individuals (Creswell, 2012). The researcher used a few questions to probe responses from the selected participants who shared a common interest and were willing to provide the best information needed.

The researcher conducted FGDs with ten (10) students from the Form three class. Five (5) students were students with Visual Impairment (VI) and the other five (5) students were regular-sighted students who support their fellow peers with VI. The FGD was divided into three groups: the first contained three regular sighted students, the second contained three VI students, and the third contained four students-two of whom were VI and the other two were regular sighted students. The researcher used FGD interview guides (See appendix E). Cohen (2013) argued that the use of FGD with open-ended questions gave the researcher flexibility and encouraged

respondents to collaborate and recall. The participants were free to discuss without intimidation and give their views on the influence of one-on-one peer support on the performance and carrier pathway choice for students with VI because they are all from the same class. The researcher used the open-ended question to probe more and get clarification from respondents concerning one-on-one peer support (Dilshad & Latif, 2013). Also, audio recording devices were used to capture the voice during the discussion.

3.1.2   Document analysis.

Documents are critical for providing official confirmation of public or private data in a natural setting includes continues assessment data forms, attendance records, and minutes of the meetings (Creswell, 2012). The document analysis seeks to explore the nature and structure of one-on-one peer support, policy or guideline, and decisions made via meetings and performance. Document analysis seeks to give evidence of the particular program or activity or study taking place in a given natural setting (Busetto et al., 2020).

The researcher analyzed the special need department meeting file, to understand how the students with VI were supported by their fellow regular-sighted students while at school and the procedures put in place. The document aimed to provide evidence for the existence of one-on-one peer support among students with VI and regular-sighted learners. Also, aim to look for any structure and nature of existing one-on-one peer support in a selected inclusive secondary school.

Furthermore, the researcher analyzed the staff meeting file and the school board file. The researcher was focusing on evidence for the existence and availability of supportive guidelines or structures for carrying out one-on-one peer support between regular-sighted students and students with VI. The extent to which the school community, teachers, leaders and management know about the existing peer support learning.

Finally, the researcher analyzed student class attendance and the continued assessment register showing the performance of regular students and students with VI. This was done to check for the relationship that exists between the performance of the student with VI and their fellow regular peers. This help researcher to obtain vivid information on how one-on-one peer support influence performance and career pathway choice for students with VI. On other hand, the class

attendance register provided information and evidence for how long students attend the class so that they can have enough time to support each other.

Instruments for data collection.

The study employed different instruments to collect relevant data. These include an interview guide, group discussion guide, and document analysis checklist.

3.1.3 Interview guide.

The researcher engaged form three subject teachers and academic teachers in discussion on their teaching experience and how they come up with one-to-one peer support and the relationship between supported and supporter in terms of performance and career pathway choice. The interview guide was used to enhance flexibility in such a way that it allowed more probing and re-phrasing of interview questions to provide in-depth information or data related to the study (Yadav, 2022).

3.1.4 Focus group guide.

The researcher employed focus group discussion and asked students questions that leads to a discussion on the influence of one-on-one peer support on student performance and career pathways choice. As pointed out by Dilshad and Latif (2013) focus group guide leads the researcher to focus on the topic of study while allowing respondents to use their own words, ideas, and concerns, promoting the creation of more fully developed stories, and providing an opportunity to see how people make sense of things collectively. Therefore, the researcher used an audio recorder to record the conversations and a site notebook to note the non-verbal communication during the discussion. The site or field notebook was used to note down important information observed during the discussion.

3.1.5 Document analysis protocol.

The researcher employed a document analysis protocol (See appendix D) for analyzing official documents including the attendance register, staff meeting file, school board meeting file, students' continued assessment, and form two national examination results. The analysis of these documents enabled the researcher to obtain basic information about the respondent class

attendance, structure of one-on-one peer support, trend of their performance, and correlation in performance between the peers and their carrier choices. A field notebook was used to record the information obtained from the documents.

Data analysis

The process of analyzing data began from the point at which data collection process began. According to Grbich (2012), data analysis is an act of dealing with text to gain the meaning and value of that particular text. Furthermore, data from interviews and FGDs recordings were transcribed into a text document using Ms-word. The transcripts were read repeatedly and codes were assigned by referring to research questions. The identified codes were categorized based on their similarities using different colours to form sub-themes. Then, the categories were assigned labels or themes. To organize the findings, the themes that emerged from the interviews and FGDs were used, and actual quotes from the teacher's interview and the students' FGDs are supplied as field evidence. The data for this study are more relevance because they were gathered through several research methods (triangulation) (Creswell, 2014). As the result, the study builds a clear understanding of how one-on-one peer support influences the performance and career pathway choice for students with VI in inclusive schools.

Trustworthiness and Rigor

Trustworthiness in qualitative research is used to describe validity and reliability of research data as addressed by credibility, transferability, dependability and conformability. The trustworthiness of this study relies on how the researcher and respondents handled the whole process of data collection and analysis (Connelly, 2016). Multiple instruments were used (triangulation) during data collection including interviews, FGDs, and document analysis so that different collaborative evidence to develop the credibility of the data. The researcher also used peer debriefing. Peer debriefing also referred to as "analytic triangulation," is a strategy where the researcher regularly communicates with a peer who is not directly involved in the research project about the study methods, data analysis, and interpretations. My supervisors, who are experienced qualitative researchers, ideally served as the peer debriefer. Peer debriefing increases credibility and dependability because it gives the researcher the chance to confirm that emerging themes or

theories were generated from the data and were reasonable and conceivable to an impartial debriefer.

The Confirmability of the study, the researcher provided an audit trail that describes each step of the data analysis that was done during the study to explain the conclusion made. Readers should be able to assess the value, applicability, and quality of a study on their basis due to the audit of decision trials. The reader can then follow the writers' reasoning and connect it to inferences they have made based on the material supplied. To demonstrate the authenticity of the conclusions, the decision trail audit includes a full account of the sources, methods, and decisions used for data collecting and analysis (such as interviews, focus groups, or document analysis).

Dependability is defined as the consistency and reliability of the research findings as well as the extent to which research techniques are well-documented, making it possible for someone not involved in the research to follow, audit, and evaluate the research process (Rose & Johnson, 2020). The researcher used an inquiry audit, which enables an outsider to verify and examine the research procedure and data analysis processes (Denzin, 2017).

Regarding transferability, the researcher demonstrated that the findings apply to other contexts by using a thick or detailed description of how one-on-one was structured and conducted in an inclusive school. The researcher provided in-depth, detailed information to achieve transferability. This enhances the credibility of the research. The reader can assess the extent to which the conclusions drawn by the authors are generalizable to other settings, situations, and populations by the researcher's provision of sufficient information about settings, inclusion/exclusion criteria, sample characteristics, and data collection and analysis methods.

Ethical issues

According to Yip et al. (2016), modern research includes several legal and ethical considerations that are important to both the subject and the researcher, such as concerns with informed consent, confidentiality, offering incentives, and many types of research misconduct. The researcher followed various procedures to obtain permission for conducting the research project. The ethical considerations ensure that participants are not harmed physically, emotionally, psychologically or socially.

3.1.6 Permission from Relevant authorities.

According to the rules and regulations for conducting research, the researcher needed to be permitted by different corresponding authorities (Shagoury & Power, 2012). The researcher applied for a research permit from Aga Khan University (AKU), Institute of Educational Development, (IED) Dar es Salaam, East Africa, by filling out the ERC form and information sheet and submitting them to the Ethical Review Committee for approval and certification. The researcher got an ethical clearance form with reference number AKU/2022/0180/fb/08/1 from Ethical Review Committee (ERC) from AKU, (IED), East Africa (See Appendix J)

The researcher was given an introduction letter from Aga Khan University, IED of which the researcher submitted to the Kilimanjaro Region Administrative Secretary (RAS) for permission to carry out the study (See Appendix L) Thereafter, the researcher was given a letter for introduction to Moshi Municipal Director where the research was conducted (see Appendix M) The researcher was then given research permission later from the District Administrative Secretary (DAS) that introduce the researcher to the head of the secondary section, the Municipal Secondary Educational Officer (MSEO) and also, introduces the researcher to the head of the school where the research took place (see Appendix N). Thereafter, the researcher went to the respective school where data was to be collected and inform the head of the school of the purpose of conducting a particular study so that head of the school allow the researcher to proceed with the study.

3.1.7 Informed consent and voluntary participation.

The researcher informed the participants that their involvement in the study is by voluntary participation. Thus, the researcher requested the participants to feel free to participate in the study. Furthermore, the researcher informed the participants that they are free to withdraw or discontinue from the study at any time without any justification. Participants were also informed that during the study, the researcher will use the recorder to record the interview and Focus Group Discussion (FGDs). Furthermore, consent forms were filled out and signed by the head of the school and participants. Assent forms were also signed by the head of the department of special needs on behalf of the students.

3.1.8 Confidentiality and Anonymity.

Surmiak (2018) said that it would be erroneous to believe that qualitative research is risk-free, even though it does not carry the same danger of physical harm as some other types of study such as medical. Being interviewed, for instance, especially when it's lengthy, in-depth, and about a delicate subject, can be upsetting and uncomfortable. In addition, Surmiak (2018) pointed out the relationship that forms between the researcher and the participants has additional ethical challenges, particularly insofar as it has the potential to exhibit some traits of a trustworthy relationship.

In this study, anonymity (use of a pseudonym) and confidentiality were highly maintained by limiting access using passwords, physically securing devices and paper documents and securely disposing of data. The data and information collected during the study were used only for this study. Data collected using a researcher notebook was highly protected in cardboard and lock. Also, audio recordings from one-to-one interviews and FGDs were safely transferred to a computer and get protected using strong passwords.

3.1.9 No harm to participants

In its most basic form, it refers to upholding the welfare of human research subjects by causing them no damage (Kirkøen et al., 2016). This involves emotional and psychological suffering in addition to potential physical injury brought on by experimental research projects. Purvis et al. (2020) pointed out that the researchers' ethical concerns about disclosing aggregate research results to participants are revealed to be intimately related to the moral duty to act in a way that does not harm. It is necessary to take action to educate researchers on how to reduce potential risks while sharing results to improve results sharing. This was achieved by using pseudonyms and protecting the data with high confidentiality protocol.

3.1.10 Reciprocity

The desire to reciprocate, or to repay good deeds with good deeds, and the idea of reciprocity is intimately related to the core ideas of "justice," "obligation" or "duty," "gratitude," and "equality"(Becker, 2014). During the research, the participants invest their time, energy, experiences, and knowledge into the study to inform and develop it (Trainor & Bouchard, 2013). The depth, breadth, and character of the researcher's inquiry expose participants to risk. As the

result, research after the study will be shared the summary of the findings with the participants as well as the school as a giveback or return.

Limitations of the study.

The study encountered some challenges during data collection given the fact that school terms in Tanzania in 2022 were changed due to the population and housing census held on 23 August 2022. The researcher found students and teachers with very busy schedules including examinations and marking. This made it very hard for a researcher to access teachers for interviews and students for FGDs. However, the researcher had to request the teacher and student to meet after school hours for some sessions.

Chapter summary.

In this section, the researcher discussed in detail the methodologies that were used in this study to collect data on the influence of one-on-one peer support on performance and career pathway choices for students with VI in inclusive schools. The study employed a qualitative research approach opting for a case study design to analyse the influence of peer support on performance and carrier choices for students with VI in form three class.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF FINDINGS

4   Introduction.

This study investigated how one-on-one peer support between students with VI and regular-sighted students influences performance and career pathway choice for students with VI in inclusive secondary schools in Tanzania. This chapter reports, analyzes, and discusses findings on the exploration of (i) the structure and nature of one-on-one peer support, (ii) the influence of one-on-one peer support on performance and career pathway choice for students with VI, and (iii) views and perceptions of teachers and students on the existing one-on-one peer support in the school.

School background

The school involved in this study was an inclusive secondary school located in the Kilimanjaro region. This school accommodate learners with special needs, specifically those with VI. This school is a government school that enrolls students from all parts of the country. The school comprises of more than 700 students from Form one to form six in which 80 students were students with special needs.

Characteristics of Participants

The study participants were teachers and students. The teachers involved were those who teach Form three classes only. These teachers were all graduate teachers, well-experienced in teaching for more than 15 years and most of the teachers were specialized in special needs education. On the other hand, the study involved Form three students, because it is at this class where students begin to choose career pathways, either to STEM, social science, or business pathway.

Study findings

As stated in the introduction, findings of this study were guided by three subsidiary research questions. Thus, data and analysis are presented based on the three themes namely: (i) the

structure and nature of one-on-one peer support, (ii)the influence of support provided by regularly sighted peers on performance and career pathway choice for students with VI, and (iii) views and perceptions of teachers and students on existing one-on-one peer support on performance and career pathway choice.

4.1.1 Structure and nature of one-on-one peer support.

The researcher posed a question aiming to explore and understand the structure and nature of one-on-one peer support between students with VI and regular-sighted students at the school. The question was set to find out how schools create one-on-one peer support, and what guidelines and criteria are used to pair this student. Teachers were interviewed on this topic to find their understanding and knowledge of the structure and nature of one-on-one peer support in their classes. FGDs were also conducted with ten Form three students, as well as document analysis, was employed to capture how one-on-one peer support is structured in school. The findings traced the structure and nature of one-on-one peer support from its beginning in school, its structure and the criteria used to create one-on-one peer support among learners with VI and regularly sighted peers.

4.1.1.1 Beginning of one-on-one support in the school

The study revealed that, the school began one-on-one peer support many years ago, since the introduction of inclusive education. Findings from one-to-one Interviews with teachers revealed that peer support started naturally informally between students with VI and regularly sighted learners because students with VI needed to be supported because they cannot see the chalkboard during the lessons and also, they needed some support to have a smooth movement in the external environment. Furthermore, the presence of this one-on-one peer support has enabled students with VI to manage their learning better as noted by the following teachers: -

"We started one-on-one peer support a long time ago. It just started naturally because students with VI were not able to write notes while in class, as the result it pulls us to find a way to support them so that they can cope with other regular students during the teaching and learning process." (Interview, Academic teacher T2, 20/09/2022).

"The students with VI need to be supported in class so that they can write notes using their braille machine. Regular sighted students support students with VI by helping them read the teacher's notes so that they write because they cannot see on the blackboard." (Interview with STEM teacher T1, 20/09/2022)

Furthermore, the findings from FGDs with students revealed a strong desire for the student with VI to be supported. The response was as follows:

"When the teacher provided lesson notes on the first day of form one, I was sitting next to my friend who was a student with VI. He had a Perkins braille machine for writing lesson notes, but I had no idea what that machine was, and he requested me to read notes to him while he was writing using the machine. We began to get to know one another, and I read for him the whole form one class." (FGD, Student B, 20/09/2022).

These findings imply that support for students with VI began early on, as soon as students arrived at the school. And this was done friendly because in an inclusive school students assist one another as friends. Shilling et al. (2015) point out that students with VI need to be supported because they cannot interact with the environment as regular sighted students do. Moreover, Gidugu et al. (2015) found in their study that the start of peer support activities is perceived as a reaction to the inefficiency of existing services and as a strategy to connect to the capacity of students to support, comfort, educate, and help one another. As pointed out by Dynan and Ryan (2019), peer support is a powerful and successful method that has been shown to boost students' learning and engagement. Consequently, the findings indicated that peer support was important for students with VI, and it was common among students. However, it should be guided by the teachers and school management for it to be more effective and useful.

4.1.1.2   Structure of one-on-one peer support.

From the interview, FGDs and document analysis there was a clear indication that there was no formal document or guideline that guides teachers on how to formally organizes and handle one-on-one peer support in school when dealing with students with disabilities such as those with VI. All respondents claimed that they don't have any government document that guides their one-on-one peer support between students with VI and their fellow sighted peers, despite the

implementation of an inclusive education policy. The teachers declared that the existing one-on-one peer support was developed by the effort of the school management and teachers to support students with VI. This is in addition to the fact that other students began to support each other informally. The responses below explain this further;

> "Although there were no official government guidelines or structures that outline how one-on-one peer support should be developed, school administration, with the assistance of the head of the special needs department and subject teachers, formulated it by assigning each student with VI, one regular sighted peer for assistance." (Interview, Academic teacher T2, 20/09/2022).

Also, during an interview another teacher with VI said:

> "We don't have any formal guidelines or a policy to do with one-on-one peer support in secondary school. Thus, we just pair each student with VI to one regular sighted learner for assistance. This makes it less effective because teachers become less concerned with its effectiveness." (Interview, Subject teacher T4, 21/09/2022).

The teacher from the STEM subject informed the researcher that:

> "In my class as a physics teacher, I used to pair each student with visual impairment with one regular student for support." (Interview, STEM teacher T1, 20/09/2022).

Yet, another teacher pointed out that;

> "There is no official timetable which shows time and kind of support, but support for students with VI is needed every time. In class, they seat together so that regular students assist the VI student at any time during the teaching and learning process. When the teacher is teaching, regular students read for VI students so that VI students write the notes using the braille machine." (Interview, teacher T3, 21/09/2022)

However, from document analysis, the researcher found that school board meetings, staff meetings and special needs department meetings, have discussed the existence and necessity of one-on-one peer support for students with VI, but none of these meetings made it clear how to

create one-on-one peer support; neither the structure nor the entire scope of the support was discussed.

4.1.1.3 Criteria used to create one-on-one peer support among learners with VI and regular sighted peer

Data gathered from interviews and FGDs revealed that one-on-one peer support was formed based on the friendship between a student with VI and a regular-sighted peer. In addition to that, findings showed that despite the friendship between the students, the regular-sighted student should have good academic performance and willingness to support a fellow student with VI. On the knowledge of criteria for formulation of one-on-one peer pair between students with VI and regular students, respondents said that:

> "The criteria used to formulate one on one peer support are love and friendship among the peers and good performance of the regular student". (Interview, teacher T1, 20/09/2022)

> We choose regular students with good academic performance who are eager to support their fellow peers with visual impairment so that they may assist them throughout the school period". (Interview, teacher T2, 20/09/2022)

Furthermore, during the interview, the head of the department of special need education was so interested in the study and informed the researcher that;

> "We used to select regular students with good performance to support the students with visual impairment in day-to-day activities". (Interview, teacher T3, 21/09/2022)

Furthermore, the findings from FGDs with students pointed out some of the criteria used to formulate one-on-one peer support pairs at the school. The regular students during FGDs said that:

> "My friend and I were quite close until the day the teacher asked who would read to the student with VI, whom I was already reading to before and because I enjoyed doing so. Therefore, it was the result of our good relationship." (FGD, student A, 20/09/2022).

In addition to that, during FGDs students with VI said that;

"The person who reads for me came to read to me because of our friendship and his willingness". (FGD, Student A1, 22/09/2022).

"What made me choose him to read for me was friendly and also, his performance in class is good, which contributed to me choosing him". (FGD, Student C1, 22/09/2022).

Together with the findings from document analysis, the study has revealed that one-on-one peer support was formed based on a good relationship, willingness and performance of the regular-sighted learner. This means each learner with VI was paired with a regular-sighted learner based on the good academic performance of this regular student by assuming that he will support the VI student to perform better, in addition to willingness and good relationship.

Contrary to the fact that students with VI needed support, the highlighted views regarding the structure and nature of one-on-one peer support between students with VI and regular-sighted peers profoundly revealed that there was no formal structure or guideline that showed how one-on-one peer support should be designed and what kind of support to be offered. Rather, teachers formulated one-on-peer support based on the friendship between peers as well as good academic performance and willingness of the regular-sighted student. Even though the management of the school has attempted to use one-on-one peer support in the classrooms, some teachers only give minimal supervision and monitoring because they view it as an unofficial or informal school program. The findings showed that the absence of a designed structure showing the content, objectives, responsibilities, expected outcome and schedule might have affected the effectiveness and efficiency of one-on-one peer support between students with VI and regular sighted students in secondary school.

As a result, the implementation of this one-on-one peer support becomes very hard for both teachers and students, leading to its inefficiency and ineffectiveness' to meet the desired goal Wessel (2015). This concurs with Haakma et al. (2018), who said that students' basic psychological needs can be supported by giving them structure, autonomy support, and involvement. Furthermore, Gidugu et al. (2015) found that, if peer support is properly structured, it will contain both practical and emotional support, with the ultimate goal of achieving mutual benefit through a reciprocal process of giving and receiving with high effectiveness. According to White et al. (2020), one-on-one peer support has a positive impact. From this finding, it was noted that one-

on-one peer support was not well structured and guided either by the school or the government, despite its crucial importance for students with VI.

These findings concur with Wentzel (2017) that children with good peer relationships also tend to be more engaged in and even excel at academic assignments than children with bad peer relationships. If higher achievers are paired with low achievers, Wessel (2015) said that students become engaged learners by exchanging thoughts, viewpoints, and solutions. This engaged learning via one-on-one peer support encourages essential life skills like problem-solving by allowing students to explore concepts and apply their abilities and experiences as they develop their thoughts and responses (Wessel, 2015).

4.1.2 Influence of support provided by regular-sighted peers on performance and career pathway choice for students with VI.

In this question, respondents were asked to elaborate on how the support provided by regular-sighted peers influences the performance of students with VI. Data for this question was gathered through semi-structured interviews with Form three subjects' teachers, FGDs with VI students and regular students, and document analysis was done to show their relatedness in academic performance. Thus, from the data collected, the following sub-themes emerged, that demonstrate factors influencing the academic performance and choice of career pathways of the students with VI: the availability of learning materials for students with VI, motivation for learning, English language enhancement, and development of the learning community.

4.1.2.1 Availability of learning materials for students with VI.

During the interviews, respondents appear to appreciate the influence of the existing one-on-one peer support on performance and career pathway choice for students with VI. The data gathered from interviews, FGDs and document analysis indicated that one-on-one peer support influences learners with VI to write their notes being assisted by regular-sighted peers. Most respondents argued critically about the contribution of learning materials to students' performance. Academic mistress pointed out that, one of the major reasons for introducing one-on-one peer support in the school was to ensure that learning materials are available and accessible to students with VI. During the study, the respondent from interviews said that;

"One-on-one is important because it is the only way we have for now for assisting students with VI to write their class notes. It also develops a passionate and supporting habit for regular students". (Interview, teacher T2, 20/09/2022).

Students with VI need to be supported in note writing, using tactile materials during the class and discussion. (Interview, teacher T4, 21/09/2022).

On the other hand, the findings from FGDs with students pointed out that:

"For him to write during the lesson while I am also writing, I read the summaries of the teacher's notes to him. On occasion, if he was unable to write during the class, I will also read to him at the remedial time or on weekends". (FGD, Student B, 20/09/2022).

In addition to that, during FGDs students with VI said that;
"I need support such that I can write notes, and move safely around the environment without being injured by different obstacles". (FGD, student A1, 21/09/2022)

The findings from document analysis revealed that it was agreed in the school that students with VI should be assisted so that they will all be able to write their class notes and other study materials. Findings from staff meetings and special needs department meetings indicated that sighted peers are excused from various tasks, such as school cleaning, so they can spend more time helping students with VI by reading teacher's notes so they may write their notes in braille. Also, findings revealed that insufficient effort was employed by the subject teachers to make sure that students with VI write notes in each lesson. Additionally, the study showed that the Perkins braille machines were outdated and susceptible to breakage when in use, which causes students to miss their timeframes for completing their notes.

The above findings demonstrate the fact that substantive effort has been put in place at the school level to ensure that students with VI have learning resources including notes from the subject teacher. Suraweera et al. (2022) note that, the institutional features of the school, such as class size, student-teacher ratio, teacher qualifications, physical and resource facilities, as well as the provision of a purposeful and relevant curriculum, must be addressed for students to achieve academic success in school. Furthermore, Chiner and Cardona (2013) point out that the availability of study materials would increase the probability that students with disabilities would engage in

learning through independent study and revision, all of which would enhance student performance. This echoes Boyle et al. (2012) observation that despite the good effort made in supporting students with VI, without resources and a supportive environment they will not achieve good academic performance.

4.1.2.2 **Motivation for learning.**

Results of the interviews and FGDs made it evident that one-on-one peer support between students with VI and regularly sighted students increase their motivation for learning. The respondents highlighted that supporting learner with VI, have improved their psychological well-being and increased their motivation for learning. Furthermore, participants said that, once a student becomes self-motivated toward learning, there was a higher probability that the performance of the student would be improved exponentially. About the influence of motivation on performance, respondents had this to say:

> "Students with VI are motivated by the support of regular students because it makes them feel comfortable and friendly in the classroom given that they are assured of support from their rabblement keeping in mind that they cannot see the blackboard". (Interview, teacher T2, 20/09/2022).

> "…. they support students with VI in moving around the school environment and make a student with VI comfortable while at school". (Interview, teacher, T1, 20/09/2022).

> "Students with VI need to be motivated to learn because they tend to talk negatively about education while seated together. They believe that education is meaningless to them since they are blind. Therefore, it is important to assist them to develop their learning motivation". (FGD, Student B, 21/09/2022)

Therefore, the findings above demonstrated that much has been done to ensure that students with VI are motivated toward learning through one-on-one peer support. This concurs with Pekrun (2014) that, students' emotions may have a big impact on how well they learn and perform. As emphasized by Pekrun (2014) that, students' attention, motivation to learn, choice of the learning pathway, and capacity for self-regulation of their learning are all impacted by the effect of emotions. Supporting students' psychological requirements for autonomy, relatedness, and

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competence has a favourable impact on students' willingness to participate in learning activities (Haakma et al., 2018). One-on-one peer support may help students to develop self-determination which is social circumstances that distinguish between motivation that is autonomous and controlled (Deci & Ryan, 2012). Furthermore, Haakma et al. (2018) found that people who feel they have room to pursue their ideas are said to have autonomy. By encouraging and supporting student autonomy, Stroet et al. (2013) found that it motivates students to feel that a learning pathway is one that they have chosen by themselves and that it is in line with their interests and ambitions. Generally, families, peer relationships, the availability of resources, the presence of a suitable competent teacher, the teacher's behaviours, teaching methods, institutional infrastructures, assessment, and curriculum design are additional factors that could affect the motivation of students with VI to learn.

4.1.2.3 English language enhancement.

Information acquired from FGDs and document analysis revealed that learners with VI who received one-on-one peer support were more likely to perform better if they received language support and assistance from sighted peers when writing their notes. The results indicate that most VI students joined the school with low academic ability; some were enrolled in Form one with poor or no writing or reading skills. In addition, respondents highlighted the fact that these children are illiterate in English, as evidenced by the fact that their sighted peers used to spell and translate English sentences into Swahili for them, so they could write correctly and comprehend it. The majority of respondents contested the idea that the English language affects students' performance.

> "I used to translate many things from English to Kiswahili because most of the students with VI are not good in the English language as the language of instruction in school."
> (FGD, student C, 20/09/2022).

In addition to that, findings from document analysis revealed that, during staff meetings and school board meetings, the issue concerning the low ability of a student with special needs was discussed several times. It was noted that some students with VI were enrolled in secondary education even when they could not read, write, or use Parkins braille. This means that teachers had to start teaching them how to read, write and use Parkins braille.

These findings concur with Suraweera et al. (2022), who discovered a variety of elements, including a student's motivation to study, social support, teaching strategies, physical surroundings, ICT, and language, all have an impact on how well students succeed in academic performance. Shrum (2015) insisted that, as a person becomes more fluent and proficient in using language, they eventually become more able to learn as well as communicate knowledge to others. Furthermore, Hill and Miller (2013) noted that English language learners are challenged to think at high levels with the support of proper scaffolding in classroom instruction that works with English language learners, wishing to enhance their practice. As a result, assisting students with VI to navigate well in the English language, which is in this case, the medium of instruction in Tanzania secondary schools, may to a large extent influence their academic achievement.

4.1.2.4 Development of a learning community.

The data gathered from interviews and FGDs revealed that one-on-one peer support learning builds good relationships among students. Thus, students tend to form stronger relationships when they are working together for a common goal, which then facilitates academic advancement. The respondent pointed out that, as students work with their fellow peers, they engage, collaborate, discuss and develop team working spirit. Furthermore, the information presented revealed that one-on-one peer support reduces loneliness and isolation for students with VI by allowing them to engage in learning with their fellow peers. Concerning the influence of the learning community on performance, respondents said:

> "This team working develop the humanitarian factor that human beings are all equal and we should work together and support each other." (Interview teacher T1, 20/09/2022)

> "It increased performance because of material accessibility, discussion, collaboration and team working between regular and VI students." (Interview, teacher T4, 29/09/2022).

> "They study together after class hours, so they use peer support learning as the revision time. So marking revision improves student performance." (Interview, teacher T3, 21/09/2022).

"…this peer support reduces loneliness and isolation for students with Vi because we are reading together, and playing together. This makes them happy and gets interested in school life like other students". (FGD, Student B, 21/09/2022).

These findings are supported by Wessel (2015) who notes that, developing a learning community is the process of making a physically active classroom where students can collaborate to create a friendly learning environment. In addition to that, according to Nieto (2015), building communities requires a well-thought-out strategy, and teachers should use to know the activities to inspire students to share. About one-on-one peer support Kiefer et al. (2015) emphasized that it is crucial that this support help students with VI be comfortable with one another and reduces loneliness and isolation because when they work together, they feel secure and confident in the classroom, which improves the emotional climate of the class to learn better. Students are learning through sharing of information, perspectives, and solutions, which enhances their academic performance (Wessel, 2015).

In summary, the finding showed that the introduction of one-on-one peer support between students with VI and regular-sighted students has influenced students with VI to write their class notes. The study revealed that class notes were made available through assistance from regular-sighted peers. Also, findings indicated that existing one-on-one peer support made students with VI feel motivated toward learning since the support provided made them feel comfortable emotionally in school. Thus, support affects students' positive emotions toward schooling. Peer support seems to be used as the method for developing a learning community in the school where students may learn and discuss together during the lesson as well as after class and on weekend days.

In addition to that, findings from interviews and document analysis show that the performance of the student with VI has been improving as a result of this peer support learning. However, the degree to which the performance of students with VI has increased is not as much as pointed out by different scholars who support peer learning. The impact of peer learning should be higher than what was observed by the researcher. This might be due to poor design and supervision of the program as pointed out by the respondent during the study.

However, students with VI said that their career pathway was influenced by their fellow sighted peers due to one-on-one peer support, document analysis indicated that all students with VI were taking social science subjects while the sighted peers were all taking science pathways. Furthermore, it was noted that students with VI are not allowed to choose STEM subjects because the present education policy does not describe clearly how the learner should be supported in a such career pathway at higher levels. On the other hand, the study revealed that, student career choice is influenced by many factors including students' background, parents, peers, community, teacher, mentoring, school learning environment and job opportunity. Despite all these factors that contribute to career pathway choice, the Tanzania curriculum does not mention how students at an ordinary level should be prepared for a certain career pathway. So, the career pathway for form three students was sandwiched within academic performance.

4.1.3   Views and perceptions of teachers and students on existing one-on-one peer support on performance and career pathway choice.

The respondents to this research question were asked to express and explain their views/opinions and perceptions regarding the influence of the current one-on-one peer support on academic achievement and the selection of a career pathway for students with VI. Additionally, respondents were requested to outline any problems with the current one-on-one peer support system and provide corresponding solutions. These responses were grouped based on teachers perspectives, that is, Socio-cultural perspective, Political perspective and Economic perspective,

4.1.3.1   Socio-cultural perspective

The social-cultural perspective considers how different people interact with their social groups, how these social groupings influence different people, and how they develop over the course of their lives. During FGDs, the researcher noted that students were coming from different communities, and they have different backgrounds and experiences. One of the students with VI said that some regular-sighted learners don't know if there are blind people, and others don't even believe it. This made it difficult to support students with VI. The respondents said that:

"Some regular students especially those performing well, feel that supporting students with VI is a disturbance for them…time wasting activity… however, if they are convinced and advised, they change and start giving support." (Interview, teacher T1, 20/09/2022).

On the other side, students with VI were found to lack self-awareness regarding the value of education to their present and future life. Even though the respondents seemed interested in the one-on-one peer support that was currently available, they emphasized that students with VI should participate in various counselling sessions to instil positive attitude toward education. The respondents had these to share:

"students with VI have a negative attitude toward schooling. They think that education is not important for them. This perspective might have originated from their home society. Supporting someone who is not self-aware becomes very hard because he will not value the support provided." (FGD, Student B, 21/09/2022)

"Some students with VI are not motivated toward learning. They are not active. Thus, you may find they have written notes, if so, he will not enter the class fearing that he will be asked by the teacher during the lesson. All this finally contributes to poor academic performance." (FGD, Student C, 21/09/2022)

"Many of us, in my opinion, have given up because we are unable to see. Even if we study, we would have nothing to do. What would we do on the street? Therefore, if you read to him, he perceives that you are wasting his time." (FGD, student B1, 22/09/2022)

"Challenge is that some of the students with VI are not giving enough co-operation with those regular students who support them. This demoralizes the students who are supporting them and gives them hard time finding them and giving assistance. This makes VI student miss notes and study materials as the result they perform poorly." (Interview, teacher T2, 20/09/2022)

Furthermore, it was revealed that peer pressure influenced student with VI to feel inferior and weak in education. Some of the respondents claimed that when a new student with VI was enrolled in Form one, others students with VI from other higher classes in school tend to

demoralize them by telling them that they won't succeed because learning is hard for students with VI.

> "The students with VI used to discourage each other from taking science. After class hours you may find them seating together discussing that science subjects are difficult especially for them because they are blind." (FGD, Student A, 21/09/2022)

These study findings above, suggest that community and/or parental attitudes toward education can have a big impact on students' achievement. Our educational systems place a high priority on assessments and recognize student performance on national exams as a measure of excellence. It was noticed that most parents and guardians were not concerned with their children's academics particularly those with VI. Teachers and children both felt de-motivated as a result of this. As a result students with VI demoralize one another as they stay together outside the classroom.

According to Suraweera et al. (2022), the school community's acceptance of students with VI helped them form friendships and participate in more social interactions and relationships. Furthermore, according to the self-determination theory, supportive instruction can stimulate students' psychological demands for competence, autonomy, and relatedness, which has a positive influence on their motivation to learn (Luo et al., 2021). Family background like the parents' educational levels, their social and racial backgrounds, their financial situations, and the kinds of jobs that family members hold affects their perceptions of education for a student with VI. In the context of family, school, and community, Suraweera et al. (2022) indicated that social support acted as a protective factor for coping with social functioning and social interactions for special needs students

4.1.3.2 Political perspective

The type of educational system that exists in Tanzania was determined by political factors. Therefore, respondents pointed out that, the impact of political factors is crucial for the creation, adoption, and implementation of different educational policies. Interview data indicated that some VI students were so passionate about science that they decided to pursue a career in STEM.

However, the Ministry of education instructed teachers not to enrol these students in STEM courses because there is no established policy that will guide their higher-level studies.

> **"**Some of the Students with VI were doing well in physics and they wish to proceed with the science pathway in form three class but, we communicated with the ministry of education and they replied that the curriculum does not allow them to proceed with science to a higher level because the government had not developed guidelines and policies for science to students with VI. So students had to choose social science pathway." (Interview, teacher T1, 20/09/2021).

Furthermore, the information collected from document analysis indicated that all students with VI in Form three classes were not taking the STEM career pathway. The respondent said that, since the policy does not specifically establish a career plan in science for students with VI, they are not enrolled in STEM courses. Thus, in such a situation, the career pathway for students with VI was directly affected by education policy. On another hand, students at the ordinary level were not taught about career choices but rather insisted on academic performance. The choice of a student's career path at the Ministry level or advanced level studies was significantly influenced by student performance, just like in form three class at Tenzi secondary school.

From this finding, there was a need for the government via the Ministry of education and Tanzania Institute of Education (TIE) to develop and implement a well-structured education policy that allows students with VI to study science subjects in form three, Form four and higher education in Tanzania. In addition to that, the government should create a conducive learning environment for learning STEM subjects for students with VI, including teaching and learning resources, trained teachers and well design curriculum (Klingenberg et al., 2019).

The findings of the interviews and FGD revealed that teachers monitored and supported one-on-one peer support relatively little. One-on-one peer support learning in Tenzi secondary school was viewed as not being a formal government program. Despite efforts by the school administration and special needs department to promote peer support learning, teachers had the discretion to monitor it or not because it was not a formal policy. For that reason, school administration faces challenges if teacher picks not effectively implement and monitor peer support learning.

From the above findings, the respondents suggested that the school board and School Management Team (SMT) should seat together and develop a well-structured, focused, implementable and measurable one-on-one peer support for assisting students to learn particularly those with VI. The document developed should be presented to a staff meeting for agreement and implementation as a school by law. Similarly to this, school administration should work with the District Education Officer (DEO) to come up with a practical strategy to encourage and motivate program implementers or teachers who use the extra time. It should be noted that the program's outcome will serve as a compass for both sides' motivation.

The government should also develop a proper curriculum that explains in detail how secondary school students with VI should be supported. Despite the presence of some teachers who specialize in teaching students with special needs, the student-to-teacher ratio was still higher, and students with special needs still require support after school hours and the teachers have gone home. The curriculum should be enacted by education policy for students with special needs including those with VI

4.1.3.3 Economical perspective

Students' academic achievement is impacted by economic aspects (Hanushek & Woessmann, 2020). Another finding supports the notion that students who perform better academically come from higher socio-economic backgrounds, get greater parental support, and had good primary school experience. The socio-economic status of the student affects their academic performance. The study found that students who enter form one without knowing how to read or write may be influenced by their families' low socio-economic level. Additionally, there was a shortage of instructional materials in schools, including braille papers, genuine braille machines, and teachers specialized to teach students with VI. Furthermore, the school was found not to have a special place where students with VI keep their braille machine, this was due to a lack of budget for preparing special cardboards for safety keeping their writing devices. In addition to that, the school lack special cardboards where students with VI will keep their notes. This was discovered to be one of the problems facing students with VI since it causes them to lose their notes and, as a result, they have nothing to study for revision at the end-of-year exam, which greatly contributed to their poor academic performance. During the study respondents said that:

"There is no special place to store our brail machine, thus contributing to its damage. We keep our machines on beds, and sometimes they fall and break down." (FGD, students B1, 22/09/2022)

"..we are asking the government to employ many teachers specialized in special education to reduce the high ratio of student: teacher." (FGD, student A1, 22/09/2022).

"For me, the challenge is the equipment we use to write... They are not of very good quality, we will only use them a little, they are damaged and sent for repairs. When it comes to maintenance, we miss writing notes. There are also times when we lack paper to write notes. Also, brail machines have been used a lot and are tired, they break down frequently." (FGD, student A3, 22/09/2022)

These findings from interview and FGDs indicate that the school lack a special place for keeping or storing learning resources for students with VI. This included students' notes, braille papers and a braille machine. The study discovered that due to a lack of proper place, students with VI kept their materials randomly both in the classroom and in the dormitories, which exposed their learning resources to loss or damage. The lack of clear space for storing learning resources for students with VI may have contributed to their unsatisfactory academic performance due to poor access to these important learning resources.

Chapter Summary

The present study revealed that one-on-one peer support between students with VI and regular sighted students was the learning style used to assist students with VI. Despite its crucial nature, it was found that one-on-one peer support was not well structured for its effective implementation. In addition to that, most responses indicated that one-on-one peer support has enhanced students with VI to engage more in learning as the results improve their performance. However, the results revealed that the performance of students with VI was still low in comparison with their fellow-sighted peers. This indicated that more effort should be put into structuring, monitoring and evaluating one-on-one peer support in inclusive secondary schools. In addition to that, it was found that students at a lower ordinary level were not taught about career interests and choices. This means there was a need of preparing students early about future career pathways such that once

they enter Form three, they select the career of their preference. On other hand, it was revealed that students with VI were restricted not take STEM career pathways from Form three onwards since the Ministry of education had no well-structured policy and curriculum for training students with VI in STEM subjects.

The following chapter will provide a summary of the study's main findings, its implications and recommendations, and finally, the overall conclusion.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION.

5   Introduction.

The primary aim of this study was to explore the influence of one-on-one peer support on academic performance and career pathway choice for students with VI in secondary school. It describes the nature of one-on-one peer support as well as perceptions and views of the students and teachers regarding the existing one-on-one peer support among students with VI and regular-sighted peers.

Summary of the findings.

This summary includes important findings related to the themes outlined, such as the structure and nature of one-on-one peer support, its impact on academic achievement and career path preference for students with VI, and teachers' and students' opinions and perceptions of the current peer support system. Last but not least, a list of problems and suggested solutions for each problem.

5.1.1   The structure of one-on-one peer support in secondary school.

This study revealed that there was no a formal document or guide that instructed teachers on how to create and manage one-on-one peer support in the classroom while dealing with students with impairments like those with VI. The teachers asserted that the one-on-one peer support program currently in place was created with the help of the school administration and teachers aiming to support students with VI. According to the findings, peer support between VI students and regular sighted students was developed since VI students needed support because they couldn't see the chalkboard during classes and also aid their movement outside the classroom. On the other hand, the researcher discovered through document analysis that while school board, staff, and special needs department meeting files contain discussions about the value and necessity of one-on-one peer support for students with VI, neither the structure nor the full scope of the support was made clear in any of these meetings.

Furthermore, findings showed that the relationship between learners and willingness, and good performance of regular sighted students served as the foundation for one-on-one peer support formation. This means that each learner with a visual impairment was paired with a sighted learner based on the regular student's good academic achievement by the assumption that the regular student will support the VI student's work more effectively. These findings concur with Wentzel (2017) that children with good peer relationships also tend to be more engaged in and even excel at academic assignments than children with bad peer relationships. On other hand, the findings revealed that the criteria used by school administration and teachers to formulate one-on-one peer support peers are good and powerful, however, the study realized that regular students were supporting their fellow peers with VI without any prior experience, knowledge and skills on how to deal and support people with special needs, particular students with VI. So, the regular student in most cases ended up reading notes for students with VI to write and sometimes engage in discussion.

5.1.2 Effects of peer support on academic performance and career pathway choice for students with VI.

The teachers acknowledged that they employed one-on-one peer support to assist students with VI to access learning materials easily. It was evident that students with VI were learning in the same class as their regular-sighted peers, keeping in mind that they cannot see the chalkboard. So, they needed someone to assist during the lesson such that they can write their notes effectively during lessons. All respondents agreed that learning materials were critically important for students to have good achievement in academic performance.

On the other hand, the results showed that, because students with VI rely mostly on peer support, teachers did not follow up or exert enough effort to ensure that these students take notes throughout each lesson. In addition to that, it was revealed that most of the Perkins braille machines were outdated and vulnerable to breaking while in use, which causes students to fall behind schedule in writing their notes. This probably affects the performance of students with VI as Chiner and Cardona (2013) claimed that the availability of study materials would increase the probability that students with disabilities would engage in learning through independent study, discussion and revision, all of which would enhance student academic performance.

The need for students with VI to feel like part of the learning community has been identified as one of the most crucial grounds for implementing one-on-one peer support learning. The study revealed that supporting learners with VI improved their emotional well-being which increase their motivation for learning. This concurs with Haakma et al. (2018) that, supporting students' need for autonomy, relatedness, and competence on an emotional level has a positive effect on students' willingness to engage in educational activities. Here was the fact that Tenzi secondary school was cultivating self-driven learning for students with VI, to improve their academic performance. On other hand, the study found that one-on-one peer support was one among many factors that motivate students toward learning. Other factors that could affect the motivation of students with VI toward learning may include family issues, peer relations, availability of resources, adequate competent teachers, teacher behaviors, teaching methods, infrastructures, assessment and curriculum design.

English language enhancement and the creation of a learning community were found to be among the intended goals for implementing one-on-one peer support. It was revealed that some of the students with VI joined secondary school with low skills in reading, writing and using Perkins braille. Thus, schools had to find a way to assist these students for them to cope with the secondary education curriculum. Among the methods employed to enhance their braille writing and reading abilities were teacher assistance and training as well as one-on-one peer support. The researcher found that students with VI were working more effectively with their fellow peers as a learning community if they master the English language as the language of instruction in secondary school. This builds effective engagement and autonomy, which enhance the academic performance of students with VI. This concurs with Wessel (2015) that students are learning through sharing of information, perspectives, and solutions, which enhances their academic performance

Additionally, results indicated that this peer support learning has improved the performance of students with VI. The improvement in VI students' performance has occurred, but not to the extent that some academics who advocate for peer learning have noted. Peer learning should have a greater influence than what the researcher noticed. The respondent pointed out during the study that, the low performance of students with VI can be the result of inadequate program design and monitoring.

Although students with VI claimed that their career choice was impacted by their fellow sighted peers due to one-on-one peer support, the results showed that all students with VI were pursuing the social science pathway while the sighted peers were all pursuing the science pathway. Additionally, it was noted that students with VI are prohibited from choosing STEM subjects of study because the present education policy does not explicitly outline how the learner will be supported in such a career path. In contrast, the study revealed that a student's career selection was influenced by a variety of factors, including their background, parents, peers, community, teachers, mentors, the learning environment at school, and job opportunities. Despite all of these variables, Tanzanian curricula do not state how should students at the ordinary level be prepared for a certain professional/career trajectory. As the result, students in Form three choose their career pathway based on their academic performance.

In general, the results showed that the introduction of one-on-one peer support between students with VI and regularly sighted students has enabled students with VI to write their class notes. According to the study, VI students received access to class notes with the help of their regular sighted classmates. Additionally, results showed that students with VI felt motivated to learn as the result of one-on-one peer support that was already in place since it made them feel comfortable in class. Peer support, therefore, influences students' positive attitudes toward learning. Peer support appears to be a strategy employed in schools to create learning communities where students can interact and share knowledge throughout the class, after school, and on weekends.

5.1.3 Teachers' and students' opinions and perceptions on on-one peer support

The study findings revealed that students were coming from different social-cultural perspectives. It was noticed during the study that the students were from various social groups and had varied family backgrounds and experiences. One of the students with VI claimed that some regular sighted students were unaware of the existence of blind people, while others don't even think it is possible. As a result, it was challenging for such regular students to assist students with VI. On other hand, it was found that some students with VI lack self-awareness when it comes to the importance of education in their life. This negative attitude toward education made some hardships in implementing one-on-one peer support. This negative attitude was found to be self-

developed due to disability as well as peer influence from other students with VI. These students, therefore, needed some guidance and counselling sessions such that they developed a positive attitude toward learning.

The environment for learning STEM career pathways for students with disability including those with VI should be improved in secondary schools. Teachers pointed out that, students with VI learn science subjects in Form one and Form two, but in Form three, these students are restricted not to proceed with the STEM career pathway even though they are interested in the same uch pathway. So, teachers claimed that the government through the Ministry of education should improve the teaching, learning and assessment environment for students with VI to proceed with the STEM career pathway. Presence of an education policy that addresses clearly how students with VI will learn STEM subjects could be one of the important ways to support education for students with disabilities.

CONCLUSION.

Based on the findings of this study, it may be interpreted that, one-on-one peer support has gradually improved the performance of students with VI in the school under study and so, influenced their career pathway choice. Despite the informal nature of existing one-on-one peer support, students and teachers cooperated to the extent that students with VI feel that they are supported and appreciated by this peer learning style. One-on-one peer support learning has developed a sense of collaboration, engagement and participation that motivated students with VI to acquire self-determination which leads to autonomy.

Implications and recommendations.

Based on the finding of this study, the following recommendations for students, teachers, school management, policy makers and curriculum developers are proposed:

5.1.4   For school management.

The study did not find any documentation on how to formally organize learning support for students with VI. It is therefore recommended that; school management develop a school level clear structure of intended one-one peer support learning. The structure, objective, strategy for

implementation, assessment and output of this supportive learning style should be shared and agreed upon by the school board committee, staff meeting and students for its effectiveness.

There is a need for school management to also provide special need education for regular students who support students with VI. This is because, for regular student support student with VI effective, must have some basic skills, techniques and strategies for supporting students with VI to achieve their intended educational goals. This will improve their cooperation, collaboration and engagement for better results.

School management via special needs departments should repair broken or non-function Perkins braille on time so that students write their notes accordingly. Also, the school administration should insist the government and other education stakeholders to provide genuine braille machines and other modern equipment for a student with VI.

5.1.5   For curriculum developers

The study did not find any formal instructions that shows how career pathway choice by students should be rendered. The Ministry of education and Tanzania Institute of Education (TIE) should therefore embrace this and develop plans for career pathway choice by students. This is because one of the significant decisions that students should make in forming their plans is their choice of career. This choice will have an effect on them for the rest of their lives because it is central to the student's identity and what they hope to accomplish with their lifetime of work.

5.1.6   For policymakers

Tanzania's government, Ministry of education, TIE and education experts should re-evaluate how schools are set up so that they are more likely to guarantee equal educational opportunities for all students and concentrate more on STEM pathways, which are crucial for success in global STEM careers markets. This is because one of the groups that encounter the usual difficulties in pursuing a STEM profession is students with VI, but they also have additional structural obstacles. For instance, students with impairments typically struggle to develop these skills, thus they should receive the appropriate support.

Government should embrace ICT for students with VI. People who are blind are now able to do a wide range of things, including writing documents, accessing the internet, and sending and receiving emails. Students with VI can use computers, cell phones, and other electronics independently with the assistance of screen reading software and specialized talking and Braille devices. The introduction of new technical tools allows VI students to feel equal to others by enabling them to access information completely independently.

5.1.7 For teachers and learners

Peer support learning is an important aspect of effective learning. Therefore, good social relationships between students with VI and regular students should be encouraged to avoid biasness among themselves and so positively influence their academic performance. The teacher should encourage the art of cooperation among the students that motivate them to learn from one another to enhance their social life and academic achievement. The study findings revealed how useful this was.

5.1.8 For further research

Only one secondary school in Kilimanjaro with special needs students was included in this study. As a result, a chosen secondary school hosted an exhibit of the stated findings. To establish a clear pattern of its impact on learning for Special needs children, other studies can look at the same or different aspects of one-on-one peer support at the secondary level or other educational levels to bring more findings to the light for broader generalization.

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THE AGA KHAN UNIVERSITY

Institute for Educational Development, East Africa.

APPENDIC A: INTERVIEW PROTOCOL FOR SUBJECT TEACHERS.

Purpose: To explore the influence of one-to-one peer support on performance and career choice for students with Visual Impairment.

Teacher's Name (Pseudonym) …………… class ……... Subject …………… Gender …………

Interviewer: ………………………. Interview No: ………… Date: …………………

Routine opening:

Briefly tell me about your professional and specialization. How long have you been in teaching? What other duties do you have in school?

Interview questions

1. What is the structure and nature of one-on-one peer support in your subject?
2. When you evaluate the type of assistance that students require. What kinds of support are students with VI in need of?
3. What guidelines or craterous are used to create one-on-one peer support amongst sighted and VI students on an individual basis?
4. What kind of assistance do you provide to the regular-sighted learner so that they can effectively support their fellow peer with VI?
5. What is the focus of introducing and using one-to-one peer support?
6. Is there any official timetable that shows the time and kind of support to be offered?
7. How does the one-on-one peer support influence performance and career choice?
8. How does the support provided align with the need of VI students?
9. Is there anything else you would like to comment on regarding the existing one-to-one peer support learning?

   Close up

If you think of something else later, please feel free to talk to me.

Thanks very much for your participation.

Institute for Educational Development, East Africa.

APPENDIX: B: INTERVIEW PROTOCOL FOR HEAD OF SPECIAL NEED DEPARTMENT.

Purpose: To explore the influence of one-to-one peer support on performance and career choice for students with Visual Impairment.

Teacher's Name (Pseudonym) …………… class ……... Subject …………… Gender …………

Interviewer: ………………………. Interview No: ………… Date: …………………

Routine opening:

Briefly tell me about your professional and specialization. How long have you been teaching? What other duties do you have in school?

Interview questions

1. How is the structure and nature of one-on-one peer support in your subject?
2. When you evaluate the type of assistance that VI students require. What kinds of support are students with VI in need of to improve their academic performance?
3. What guidelines or craterous are used to create one-on-one peers amongst sighted and VI students?
4. What kind of assistance do you provide to the regular-sighted learner so that they can effectively support their fellow peer with VI?
5. What is the focus of introducing and using one-to-one peer support?
6. Is there any official timetable that shows the time and kind of support to be offered?
7. How does the one-on-one peer support influence performance and career choice for VI students?
8. How does the support provided align with the need of VI students?
9. Is there anything else you would like to comment on regarding the existing one-to-one peer support learning?

   Close up

If you think of something else later, please feel free to talk to me. Thanks very much for your participation.

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Institute for Educational Development, East Africa.

APPENDIX: C: INTERVIEW PROTOCOL FOR ACADEMIC MASTER/MISTRESS.

Purpose: To explore the influence of one-to-one peer support on performance and career choice for students with Visual Impairment.

Teacher's Name (Pseudonym) …………… class ……... Subject …………… Gender …………

Interviewer: ………………………. Interview No: ………… Date: …………………

Routine opening:

Briefly tell me about your professional and specialization. How long have you been teaching? What other duties do you have in school?

Interview questions

1. How is the structure and nature of one-on-one peer support?
2. What guidelines or craterous are used to create one-on-one peer amongst sighted and VI students?
3. What kind of assistance do you provide to the regular-sighted learner so that they can effectively support their fellow peer with VI?
4. What is the focus of introducing and using one-to-one peer support?
5. Is there any official timetable that shows the time and kind of support to be offered?
6. How does the one-on-one peer support influence performance and career choice for VI students?
7. How does the support provided align with the need of VI students?
8. Is there anything else you would like to comment on regarding the existing one-to-one peer support learning?

Close up

If you think of something else later, please feel free to talk to me.

Thanks very much for your participation.

THE AGA KHAN UNIVERSITY

Institute for Educational Development, East Africa.

APPENDIX: D: DOCUMENT ANALYSIS CHECKLIST

Purpose: To explore the influence of one-to-one peer support on performance and career choice for students with Visual Impairment.

Teacher's Name (Pseudonym) …………… Department…………… Position ………………

The school (Pseudonym)……………………………. Date……..………

Time……………………

Documents to be analyzed

Documents	Specific Document	Information to be obtained	Comments about findings
School files	✓ Attendance records	• Obtaining the information on school attendance of peers which influences support, learning and performance.	
	✓ Special need department Meetings	• To obtain information about the nature and structure of one-on-one peer support or whether the information about one-on-one peer support has been discussed in the meetings. • Check the guideline for handling one-on-one peer support	
	✓ Students' continuous assessment records.	• To check the trend of performance between peers. • Also, to relate the trend of the performance and career pathway selected by these peers.	

Thanks, for your Participation.

APPENDIX: E: FOCUS GROUP PROTOCOL FOR STUDENTS.

Purpose: To explore the influence of one-to-one peer support on performance and career choice for students with Visual Impairment.

Student's Name (Pseudonym) …………… class …….. Career ……………… Gender …………

Interviewer: ………………………. Interview No: ………… Date: …………………

Routine opening: I am **Gerald John Kimaro,** a Master's student at Aga Khan University specializing in Educational Leadership and Management. I'm researching exploring the influence of one-to-one peer support on performance and career choice for students with Visual Impairment. Kindly, I welcome you to take part in this study.

PART A: DEMOGRAPHIC INFORMATION

1. Can you briefly introduce yourself?

PART B: DISCUSSION QUESTIONS.

1. What makes you work together as peers? How come your working as a peer?
2. Think of the kind of support you need from your peer. What kind of support do you provide/receive from your peer?
3. How do you provide such support to your fellow?
4. What is the focus of the support that you provide/receive from your fellow peer?
5. Is there any official timetable that shows the time and kind of support to be offered? Do you receive any support or guidelines from the teachers?
6. How does the support received/provided influence with your career pathway choice?
7. Does the support provided align with the career interest of VI students?
8. What do you think you need to improve the existing one-to-one peer support?
9. Is there anything else you would like to comment on regarding the existing one-to-one peer support learning?

    Close up

If you think of something else later, please feel free to talk to me.

Thanks very much for your participation

APPENDIX F: CONSENT FORMS FOR HEADTEACHERS

Ethical Consent Form for Head Teacher

Research Topic: Exploring the influence of one-on-one peer support on performance and career pathway choice for students with Visual Impairment

I have been informed of the requirements of the study and fully understand what will be expected of me as a participant.

I, therefore, agree to be amongst the participants in this study with the following conditions. *Put a tick (✓) as appropriate against each statement;*

- ☐ *This study focuses on the influence of one-on-one peer support on performance and career pathway choice for students with Visual Impairment*
- ☐ *The purpose of the study is to explore how one-on-one peer support influences school performance and career choice for students with Virtual Impairment (VI). The study aims to find how sighted peers support students with VI in improving academic performance and developing diverse carrier choices including Science, Technology, Engineering, Mathematics (STEM), business, or social science.*
- ☐ *My identity as a research participant will remain confidential and my name and my responsibility/role in the school and the name of the school will not be used at any point in the research or in reporting the findings.*
- ☐ *I maintain the right to withdraw from the study at any point in time.*
- ☐ *I will be interviewed as part of the study*
- ☐ *My voice can be recorded during my interview.*
- ☐ *My class can be observed when I am teaching lessons*
- ☐ *My records (schemes of work and lesson plans) can be analyzed for this study.*
- ☐ *Photographs (or scans) of my work or classroom will be taken for research purposes*
- ☐ Add any other issue relevant to your data collection as it relates to this category of participants
- ☐ *I hold the right to refuse to answer any question.*
- ☐ *I will receive the summary of the final report of the study.*
- ☐ *The findings of this study may be used in conference presentations and in academic publications.*

I express willingness to participate in this study by signing this form.

Name: ……………………………Designation: ……………………………

Signature: ………………………… Date: ……………………………

Name of school: …………………………………………………………………

Researcher's Name: Gerald John Kimaro

Researcher's Contact: P.O. Box 125 Dar es salaam

Name of Institution: The Aga Khan University IED, EA

In the unlikely event of a breach of ethics or any other emerging issues, inform Chairperson Ethical Review Committee of the Aga Khan University Tanzania, Dr. Fortidas Bakuza Salama House Urambo Street – Plot 10, P.O. Box 125, Dar es Salaam. Tel: +255-22-215229/2150051   Fax:+255-22-2150875   E-mail: fortidas.bakuza@aku.edu or iedea@aku.edu

APPENDIX G

Ethical Consent Form for Teachers

Research Topic: Exploring the influence of one-on-one peer support on performance and career pathway choice for students with Visual Impairment

I have been informed of the requirements of the study and fully understand what will be expected of me as a participant.

I, therefore, agree to be amongst the participants in this study with the following conditions. *Put a tick (✔) as appropriate against each statement;*

- ☐ *This study focuses on the influence of one-on-one peer support on performance and career pathway choice for students with Visual Impairment*
- ☐ *The purpose of the study is to explore how one-on-one peer support influences school performance and career choice for students with Virtual Impairment (VI). The study aims to find how sighted peers support students with VI in improving academic performance and developing diverse carrier choices including Science, Technology, Engineering, Mathematics (STEM), business, or social science.*
- ☐ *My identity as a research participant will remain confidential and my name and my responsibility/role in the school and the name of the school will not be used at any point in the research or in reporting the findings.*
- ☐ *I maintain the right to withdraw from the study at any point in time.*
- ☐ *I will be interviewed as part of the study*
- ☐ *My voice can be recorded during my interview.*
- ☐ *My class can be observed when I am teaching lessons*
- ☐ *My records (schemes of work and lesson plans) can be analyzed for this study.*
- ☐ *Photographs (or scans) of my work or classroom will be taken for research purposes*
- ☐ Add any other issue relevant to your data collection as it relates to this category of participants
- ☐ *I hold the right to refuse to answer any question.*
- ☐ *I will receive the summary of the final report of the study.*
- ☐ *The findings of this study may be used in conference presentations and in academic publications.*

I express willingness to participate in this study by signing this form.

Name: ……………………………Designation: ……………………………

Signature: ……………………… Date: ……………………………………

Name of school: ………………………………………………………………………

Researcher's Name: Gerald John Kimaro

Researcher's Contact: P.O. Box 125 Dar es salaam

Name of Institution: The Aga Khan University IED, EA

In the unlikely event of a breach of ethics or any other emerging issues, inform Chairperson Ethical Review Committee of the Aga Khan University Tanzania, Dr. Fortidas Bakuza Salama House Urambo Street – Plot 10, P.O. Box 125, Dar es Salaam. Tel: +255-22-215229/2150051   Fax:+255-22-2150875   E-mail: fortidas.bakuza@aku.edu or iedea@aku.edu

APPENDIX: H

Ethical Consent Form for Parent/Guardian of minor

Research Topic: Exploring the influence of one-on-one peer support on performance and career pathway choice for students with Visual Impairment.

I have been informed of the requirements of the study and fully understand what will be expected of my child/student as a participant. I, therefore, agree for my child to be amongst the participants in this study with the following conditions. *Put a tick (✔) as appropriate against each statement;*

- ☐ *This study focuses on the influence of one-on-one peer support on performance and career pathway choice for students with Visual Impairment.*
- ☐ *The purpose of the study is to explore how one-on-one peer support influences school performance and career choice for students with Virtual Impairment (VI). The study aims to find how sighted peers support students with VI in improving academic performance and developing diverse carrier choices including Science, Technology, Engineering, Mathematics (STEM), business, or social science.*
- ☐ *The identity of my child/student as a research participant will remain confidential and his/her name and his/her responsibility/role in the school and the name of the school will not be used at any point in the research or in reporting the findings.*
- ☐ *My child/student maintains the right to withdraw from the study at any point in time.*
- ☐ *My child/student will not be judged by any answer that she/he gives.*
- ☐ *My child/student will participate in a focus group discussion*
- ☐ *The voice of my child/student can be recorded during focus group discussion*
- ☐ *My child's/student's exercise book will be checked and photographed.*
- ☐ *My child/student will participate in a focus group discussion*
- ☐ *My child/student will complete a test*
- ☐ Add any other issue relevant to your data collection as it relates to the child/student
- ☐ *My child/student holds the right to refuse to answer any question.*
- ☐ *A summary of the final report of the study will be shared with the school.*
- ☐ *The findings of this study may be used in conference presentations and in academic publications*

I express willingness for my child/student named _____ to participate in this study by signing this form.

Name of parent: ………………………………

Signature: ……………………………. Date: …………………………………………

Name of school: ……………………………………………………………………………

Researcher's Name: Gerald John Kimaro

Researcher's Contact: P.O. Box 125 Dar es salaam

Name of Institution: The Aga Khan University IED, EA

In the unlikely event of a breach of ethics or any other emerging issues, inform Chairperson Ethical Review Committee of the Aga Khan University Tanzania, Dr. Fortidas Bakuza Salama House Urambo Street – Plot 10, P.O. Box 125, Dar es Salaam. Tel: +255-22-215229/2150051   Fax:+255-22-2150875   E-mail: fortidas.bakuza@aku.edu or iedea@aku.edu

ASSENT FORM FOR LEARNERS

I have been given full information on the aim, the purpose and my participation in the study by the researcher from Aga Khan University, Institute for Educational Development- Eastern Africa.

I, therefore, agree to be amongst the participants in this study with the following conditions. *Put a tick (✔) as appropriate against each statement;*

☐ The purpose of the study is *to explore how one-on-one peer support influences school performance and career choice for students with Virtual Impairment (VI). The study aims to find how sighted peers support students with VI in improving academic performance and developing diverse carrier choices including Science, Technology, Engineering, Mathematics (STEM), business, or social science.*

☐ I will not be judged by any answer that I give.

☐ My identity will not be disclosed in the research findings.

☐ I will participate in a focus group discussion

☐ I will complete a test

☐ Add any other issue relevant to your data collection as it relates to the child/student

☐ I have been briefed verbally and in writing about the purpose and duration of the study.

☐ My parent/guardian has given consent on my behalf

By my signature, I agree to be a participant in this study.

Name: _____

Name of institution: _____

Signature of participant: _____

Date: _____

In the unlikely event of a breach of ethics or any other emerging issues, inform Chairperson Ethical Review Committee of the Aga Khan University Tanzania, Dr. Fortidas Bakuza Salama House Urambo Street – Plot 10, P.O. Box 125, Dar es Salaam.
Tel: +255-22-215229/2150051   Fax:+255-22-2150875   E-mail: fortidas.bakuza@aku.edu or iedea@aku.edu

APPENDIX J

AGA KHAN UNIVERSITY ETHICAL CLEARANCE CERTIFICATE

THE AGA KHAN UNIVERSITY

Ref; *AKU/2022/0180/fb/08/1*

Date: 18th August, 2022.

Gerald Kimaro
Aga Khan University
P. O Box 125
Dar es Salaam,
Tanzania.

Dear Gerald Kimaro,

ETHICAL CLEARANCE CERTIFICATE

This is to acknowledge that your application for ethical clearance for a research study entitled *"Exploring the influence of one-on-one peer support on performance and career pathway choice for students with Visual Impairment: A case of a selected Secondary School in the Kilimanjaro Region."* was received and reviewed by the Aga Khan University, Ethical Review Committee, East Africa (AKU-ERC, EA)**.**

We would like to inform you that the committee has approved your proposal and advise you to proceed with your research project in line with the Aga khan University policies, laws and regulations and ethical guidelines.

I wish you all the success in your research.

Yours Sincerely,

Dr. Fortidas Bakuza
Assistant Professor
Chair, Ethical Review Committee

CC: National Institute for Medical Research

INFORMATION SHEET

Title of study: Exploring the influence of one-on-one peer support on performance and career pathway choice for students with Visual Impairment: The case of a selected secondary school in the Kilimanjaro region

Principal investigator: Gerald John Kimaro

Institute: Institute of Educational Development, Eastern Africa, Aga Khan University.

Introduction

I am Gerald John Kimaro, a Master of Education student at the above-mentioned University. I am carrying out research on the influence of one-on-one peer support on performance and career pathway choice for students with Visual Impairment. I wish to explore how one-on-one peer support between sighted and VI students influence performance and career pathway choices for the student with VI, since your school is of my sample study as an inclusive school, I would like you to participate in the research study.

Purpose of this research study

The purpose of the study is to explore how one-on-one peer support influences school performance and career choice for students with Virtual Impairment (VI). The study aims to find how sighted peers support students with VI in improving academic performance and developing diverse carrier choices including Science, Technology, Engineering, Mathematics (STEM), business, or social science.

Procedure

In this study, I wish to have 14 participants of which four (4) are teachers and 10 are students. I will have one-on-one interviews with teachers, focus group discussions with students and have a look at four different documents, namely; students' academic records, attendance records, peer support guidelines and special education departmental meetings. All the findings will be used for this study and nothing else.

Possible risks or benefits

There is no risk involved in this study except for using a few minutes of the students' and teachers' busy schedules during the interviews, focus group discussion and document analysis. There is also no direct benefit to you. However, the research findings will be shared with the school and may help in improving student learning and career choices.

Right of refusal to participate and withdrawal

You are free to choose to participate in the study. You may refuse to participate without any loss of benefit to which you are otherwise entitled to. You may also withdraw at any time from the study without any adverse effect on the management of your school or any loss of benefit to which you are otherwise entitled to. You may also refuse to answer some or all the questions if you don't feel comfortable with the questions.

Confidentiality

The information obtained from your school will remain confidential. Nobody except the principal investigator will have an access to it. The name and identity of your school and students will also not be disclosed at any time. However, the data may be seen by the Ethical review committee and may be published in a journal and elsewhere without giving your name or disclosing your identity.

Authorization

You will be asked to sign a consent form to indicate your voluntary participation. You will receive a copy of the form. Your consent does not take away any legal rights in the case of negligence or other legal fault of anyone who is involved in this study. Nothing in the consent form is intended to replace any applicable national, state or local laws.

Available Sources of Information

For further questions, you may contact Principal investigator **Gerald John Kimaro**

Phone no. +255 754 749 042

In the unlikely event of a breach of ethics or any other emerging issues, inform Chairperson Ethical Review Committee of the Aga Khan University Tanzania, Dr. Fortidas Bakuza Salama House Urambo Street – Plot 10, P.O. Box 125, Dar es Salaam.

Tel: +255-22-215229/2150051 Fax:+255-22-2150875 E-mail: fortidas.bakuza@aku.edu or iedea@aku.edu

APPENDIX L: INTRODUCTION LETTER TO RAS KILIMANJARO

THE AGA KHAN UNIVERSITY

Office of the Registrar

August 26, 2022

The Regional Administrative Secretary
Kilimanjaro Region
P. O. Box 3070,
Moshi, Tanzania

Dear Sir/Madam,

Re: Research Permits for Master of Education Students at Aga Khan University

We would like to request your office to please process research permits for the following Master of Education students who will be conducting their research study in Kilimanjaro Region. The research topics are written against the name of the individual students.

1. **Gerald John Kimaro**: *"Exploring the Influence of one-on-one Peer Support on Performance and Career Pathway Choice for Students with Visual Impairment: A case of selected Secondary School in the Kilimanjaro, Region"*
2. **Kassimu Ramadhani Semvua**: *"Exploring the use of Information and Communication Technology in Teaching and Learning of Mathematics: A case study of Primary School in Rombo District - Tanzania"*
3. **Nasru Said Magachi**: *"Validity Issues in Classroom Assessment. An Exploration of Practices, and Pitfalls in a Selected Public Secondary School in Mwanga District"*

We thank you in advance for your continued cooperation.

Yours sincerely,

Agatha Damas
Assistant Registrar, Tanzania